Top-down effects of different sized herbivores on soil microbial biomass C and bacterial community structure in subalpine grasslands

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ABSTRACT

Grassland ecosystems support large populations of herbivores, which can be key determinants and regulators for grassland processes as grazing has impacts on several trophic levels. Herbivores are not only influencing aboveground, but also belowground properties. Trampling as well as deposition of organic matter in form of dung and urine are directly influencing belowground processes. Indirect herbivore impact on belowground processes via grazing can origin from changes in plant physiological properties such as nutrient allocation, root exudation and - in the long-term - plant community composition, which, in turn, alters the quantity and quality of the organic material incorporated into the soil. The effect of herbivores on grassland properties, however, highly depends on the grazing intensity, which is correlated to body size of the animal and the productivity of the system. Positive effects of grazing are generally found in heavily grazed productive ecosystems, negative ones in rarely grazed unproductive systems. All these impacts have consequences for microorganisms and as they are involved in a wide variety of soil processes, which ultimately have an impact on the functioning of all trophic levels, it is important to gain information on how herbivores affect the abundance and composition of these organisms.

Consequently, a gradual exclosure experiment was established in this study to exclude four groups of herbivores of different body size in two different subalpine grassland types of different productivity. The main objective was to investigate how the exclusion of the different herbivores affects the abundance and composition of the soil bacterial community, examined using T-RFLP analyses. More specifically, I investigated how herbivore exclusion affected the soil bacterial community composition in the rhizosphere and mineral soil and the microbial biomass carbon (C) of the mineral soil after the first and second year of treatment establishment.

After the first year I did not detect any impact of the treatments on microbial biomass. After the second year, herbivore exclusion resulted, however, in lower microbial biomass the more herbivores were excluded after the second year. This would indicate that grazing would stimulate microbial biomass C in the Swiss National Park, possibly due to enhanced root exudation or faeces deposition. Yet, no differences in the response to grazing exclusion on microbial biomass C were found between the two vegetation types. Neither exclusion of different herbivores nor the differences in vegetation type were able to explain the differences in the bacterial community structure detected. It rather seemed that differences in abiotic and biotic parameters such as soil temperature, soil moisture, root and microbial biomass were responsible for the differences in community structures found as I found a strong annual pattern for both rhizosphere and mineral soil layer, being more pronounced in the rhizosphere. Abiotic and biotic factors might be outweighing grazing effects as they could initiate variations in resource availability in the soil. In addition, bacterial diversity increased from the first to the second year, even though Evenness was reduced. Grazing induced changes in microbial biomass

C did not result in changes in the bacterial community structure or diversity. Two years of exclusion might be insufficient to show the impact of grazing on soil microbes, since functioning ecosystems have some resilience. Nevertheless, I could show that the microbial compartment is not an inert system since strong temporal effects could be shown.

INTRODUCTION

Grasslands cover approximately one third of the terrestrial surface (Lieth 1978) and provide habitat for a wide range of animals. Grasslands support more herbivores than any other terrestrial ecosystem (McNaughton et al., 1989) with the two being closely linked as a result of co-evolutionary processes (Frank et al., 1998). Herbivores can be key determinants and regulators of grassland processes as grazing impacts several levels of trophic cascades. Besides altering aboveground biomass and plant species composition through grazing (e.g. Wardle et al., 2001; del-Val and Crawley 2005; Bakker et al., 2006; Austrheim et al., 2008; Zhou et al., 2010), herbivores can directly and indirectly affect belowground properties. Direct impacts of herbivores such as trampling can alter soil structure and permeability (e.g. bulk density or aeration; Binkley et al., 2003). The deposition of organic matter and nutrients in form of dung and urine may stimulate root and microbial activity through an increased level of available nitrogen (Stark et al., 2000). Thus, nitrogen availability may be enhanced, since slow processes of litter production and decomposition are bypassed and nutrients are directly returned to soil, which results in a "shortcut" of the nutrient cycle (Bardgett et al., 1997). Indirect grazing effects on belowground properties occur via alteration of the vegetation. Removal of aboveground biomass can, for example, alter soil properties, such as soil temperature or soil moisture (Bardgett and Wardle, 2003; Stark et al., 2000), which in turn can influence microbial activity and therefore mineralization and decomposition of organic material. Herbivory can also induce physiological responses of plants such as C allocation between shoots and roots as well as root exudation (Bardgett and Wardle, 2003; Holland et al. 1996). The changes in resource quantity entering the soil can therefore stimulate microbial biomass and activity in the rhizosphere (Hamilton and Frank, 2001). Further, over longer time frames herbivores can influence plant community composition by altering competitive interactions between plant species. This generally leads to an increase in the abundance of species that defend themselves better against herbivory, e.g., by increasing their fiber or secondary metabolite content. Consequently, the quantity and quality of organic material entering the soil is altered at the expense of poorer resource quality. Ultimately this causes a retardation of soil processes since microbial abundance and activity are strongly related to the quantity and quality of plant litter incorporated into the soil (Bardgett and Wardle, 2003; Bardgett et al., 1997). These top-down effects can induce feedback-loops since microorganisms are involved in a wide variety of processes such as organic matter decomposition and nutrient cycling, which ultimately affect the functioning of all trophic level as bottom-up forces. Consequently, for understanding feedback mechanisms within grassland ecosystems, it is crucial to link aboveground with belowground properties (Bardgett and Wardle, 2003). Further, it is important to consider that the effect of herbivores on grassland properties highly depends on the grazing intensity as well as the productivity of the systems. Generally, it has been suggested that grazers have a positive effect on soil biota and soil processes in productive ecosystems in combination with high grazing intensities, while negative ones are expected in unproductive systems with low consumption rates (Bardgett and Wardle, 2003; Figure 1).

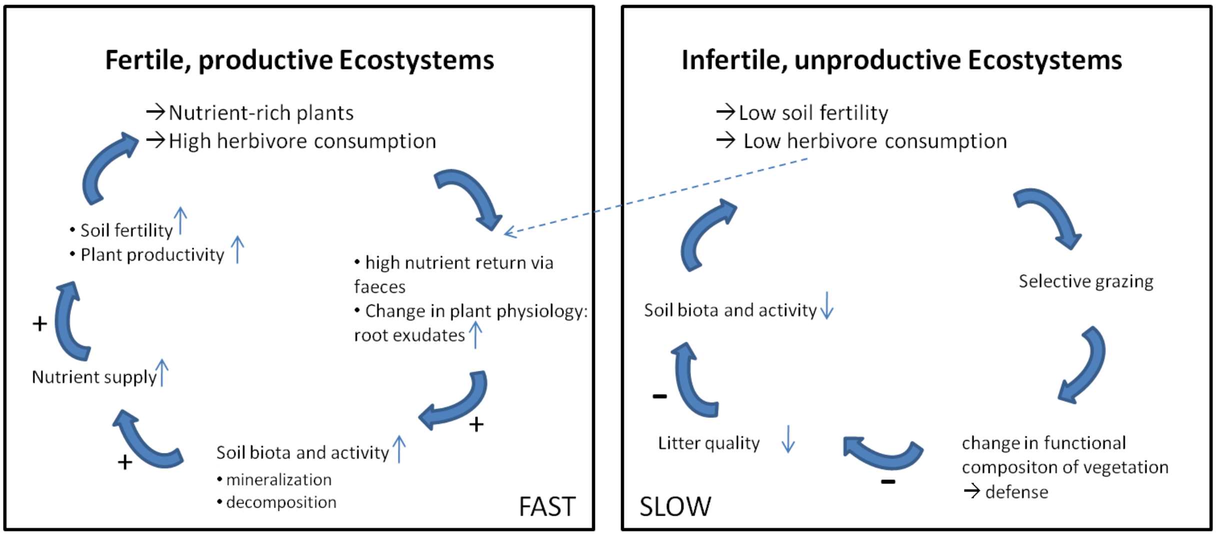


Figure 1: Differences of herbivore effects on the ecosystem depending on its productivity. In unproductive ecosystems with low consumption by herbivores, positive effects of herbivores (e.g. nutrient return via faeces, enhanced root exudation) are highly localized and have little importance at the ecosystems scale. Unproductive ecosystems mainly depend on decomposition processes. However, these processes are less pronounced in productive ecosystems, where the slow steps of litter production and decomposition are bypassed. Summarized from Bargett and Wardle, 2003.

While many studies have focused on such direct and indirect impacts of herbivores on soil processes as soil nutrient cycling (Tracy and Frank, 1998; Bakker et al., 2004) and decomposition (Stark et al., 2000; Wang et al., 2006), less is known on how herbivores may affect microbial communities, although they are responsible for these soil processes. Most studies described the relation between grazing and microbes mostly by shifts in bacteria and fungi ratios and not by changes in bacterial community structure. Grasslands adapted to low grazing pressure are thought to be dominated by fungi, whereas in productive ecosystems with high grazing pressure bacteria are pre-dominant (Klumpp et al., 2009). Also Bardgett et al. (1996, 2001) provided evidence that intensively grazed sites are dominated by bacteria, whereas in less heavily grazed sites fungi play a greater role. Favoring bacterial-based energy channels are supposed to be associated with enhanced rates of decomposition and nutrient mineralization (Wright et al., 2010). In the few studies, in which changes in bacterial community structure were investigated, it was hypothesized that grazing can induce changes in the proportion of bacteria functional groups (Patra et al., 2005) such as for example increases in urine processing bacteria, due to large inputs of N (Orwin et al., 2010).

The few studies that investigated microbial community structure only considered one group of herbivores (usually large ungulates or domestic herbivores; Clegg, 2006; Bardgett et al., 1997), even though several species of different herbivores generally coexist in a grassland ecosystem. There are studies examining the effect of different grazing intensities on microbes (Holland, 1995; Zhou et al., 2010), but all were investigating animals of the same body size. This disregards the fact that grazing intensity and the amount of biomass consumed seems to be highly correlated with the body size of the grazer (Hobbs, 1996; Bakker et al., 2004). Due to metabolic restrictions, different sized animals are not only known to consume different amounts of resources; they also differ in their demand for resource quality. Small herbivores consume, for example, only small amounts, but they are selective and have to include high quality nutrients into their diet. As a consequence, different sized animals could potentially have different impacts on the abundance and composition of the microbial community compared to animals of the same body size. Given the lack of information on how different sized herbivores affect microbial communities, the objective of this study was to investigate how the exclusion of four groups of different sized herbivores affects bacterial communities in two different vegetation types in the Swiss Alps. More specifically, I investigated how one and two years of gradual exclusion of large, medium and small mammals and invertebrates affected the mineral soil microbial biomass C, determined by the substrate induced method, as well as the community structures of bacteria in the rhizosphere and mineral soil using T-RFLP analyses. In addition, I tested how differences in these parameters were related to environmental variables such as soil temperature and soil moisture, as microorganisms are reported to react sensitively to environmental conditions. I expected larger and faster changes in microbial biomass C and bacterial community structure the more herbivores were excluded, as the release of grazing pressure increased and dung input decreased. These differences were expected to be more pronounced in the more productive vegetation type, as this type is grazed with greater intensity.

MATERIAL AND METHODS

STUDY SITE AREA

This project was conducted in the Swiss National Park (SNP), which is located in southeastern Switzerland. The park covers an area of 170.3 km^2 with an elevation range of 1400 to 3174 m. Averaged over the years 1960 to 2009, mean annual temperature and precipitation amount to 0.6 ± 0.6°C and 871 ± 156 mm (mean ± SD), respectively, recorded at the park`s weather station in Buffalora (1977 m; MeteoSchweiz 2011). Since hunting, fishing, agricultural or silvicultural activities are prohibited within the SNP and visitors are not allowed to leave hiking trails, human disturbance is kept minimal. Subalpine grasslands were created during agricultural land-use dating back to the 14^{th} century. They are important grazing sites for herbivores within the SNP, even though they only cover 3 km^2. These grasslands can be divided in two different vegetation types: nutrient-rich short-grass and lower quality tall-grass. Large (>1 ha) homogenous patches of both types can be found throughout the Park. Short-grass developed after the park foundation in 1914 on former resting areas of cattle, where dung and urine accumulated during centuries, whereas tall-grass developed where cattle grazed (Schütz et al., 2006). Intensive grazing by herbivores keeps short-grass at a approximate height between two to five centimeters. Short-grass is dominated by red fescue (*Festuca rubra* L.), quaking grass (Briza media L.) and common bent grass (*Agrostis tenuis* Sipthrob), whereas tall-grass can exceed 20 cm in height and mostly tussocks of evergreen sedge (*Carex sempervirens* Vill.) or mat grass (*Nardus stricta* L.) are found (Schütz et al., 2006).

EXCLOSURE FENCES

18 fences located in six study areas ranging from 1975 to 2299 meters of altitude were established immediately after snowmelt in spring 2009: Val Mingèr (4 fences), Val dal Botsch (2), Stabelchod (4), Stabelchod Dadaint (2), Margunet (2) and Alp Grimmels (4) (Figure 2). Soil texture classes were mainly sandy loam or loam with a soil pH ranging from 6.33 to 7.84. Mineral soil nutrients varied from 4.9-30.3 mg/kg for phosphorous (P), 4.7 to 23.1% and 0.3 to 1.4%, for soil carbon (C) and nitrogen (N), respectively (unpublished data, Table 1). After the field season, fences were taken down to protect them from snow pressure and avalanches and re-established in spring 2010 after snowmelt. At each study site half of the fences were set on nutrient-rich short-grass and the other half on the lower quality tall-grass.

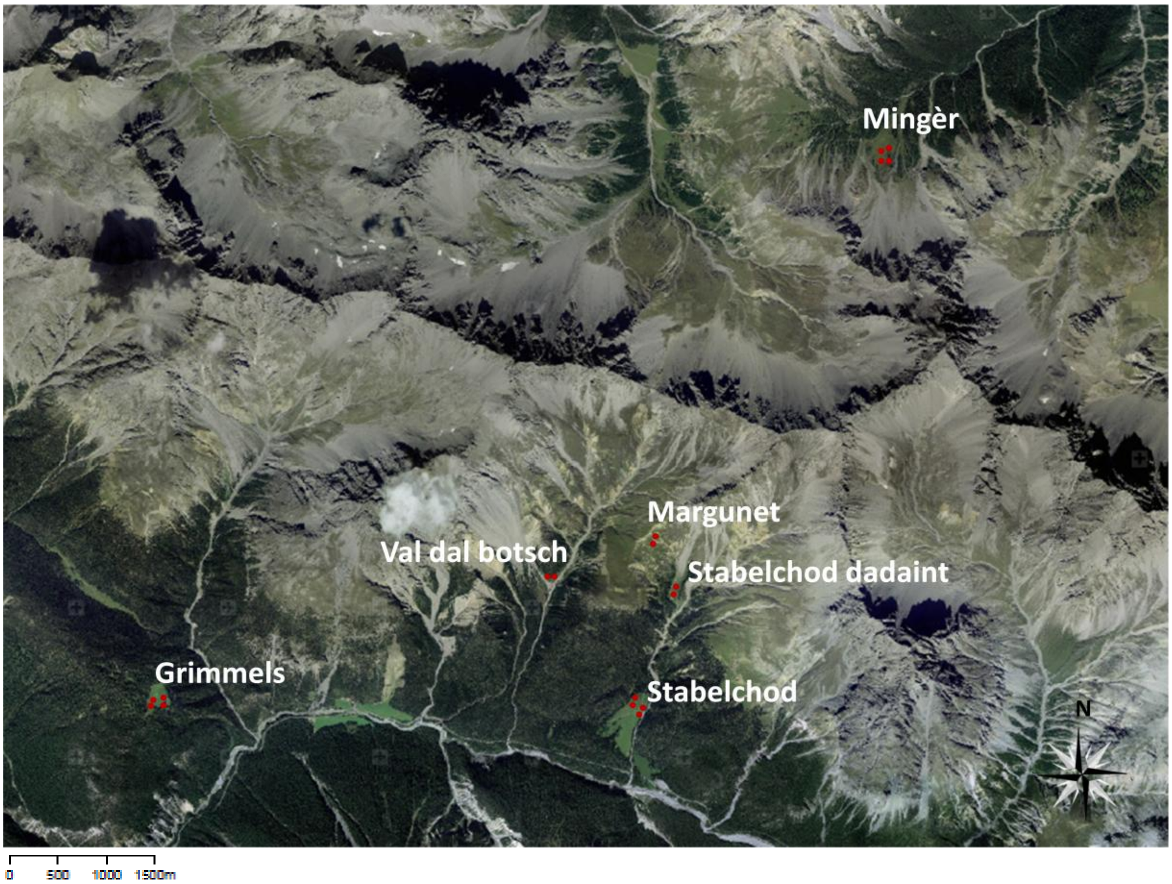


Figure 2: Location of study site areas within the Swiss National Park (1:50000). Red dots are indicating individual fences.

Table 1: Characteristics of soil and vegetation of fences, determined before the experiment. Veg type= vegetation type

Fence	Veg type	Elevation (m)	pH	Sand (%)	Silt (%)	Clay (%)	Soil textural class
1	Short	1975	7.7	55.4	39.4	5.2	sandy loam
2	Tall	1981	7.6	56.0	34.4	9.6	sandy loam
3	Short	1980	7.69	58.2	36.6	5.2	sandy loam
4	Tall	1986	7.6	53.4	37.2	9.4	sandy loam
5	Short	2133	7.81	40.4	49.2	10.4	loam
6	Tall	2140	7.84	60.4	36.2	3.4	sandy loam
7	Short	2275	7.1	46.0	31.6	22.4	loam
8	Tall	2299	6.33	49.8	28.6	21.6	loam
9	Short	2091	7.5	82.4	17.6	0	loamy sand
10	Tall	2075	7.6	59.2	37.6	3.2	sandy loam
11	Short	2032	7.74	48.2	38.6	13.2	loam

12	Tall	2060	7.63	48.2	39.6	12.2	loam
13	Short	2079	7.28	44.6	39	16.4	loam
14	Tall	2112	7.12	39.5	32.7	27.8	clay loam
15	Short	2170	6.59	57.5	37.7	4.8	sandy loam
16	Tall	2176	7.4	49.8	41	9.2	loam
17	Short	2181	7.18	60.8	37	2.2	sandy loam
18	Tall	2162	7.4	53.6	41	5.4	sandy loam

The stepwise exclusion of different sized herbivores was achieved using exclosures with different mesh sizes. To prevent grazing of large vertebrate herbivores such as red deer (*Cervus elaphus* L.) and chamois (*Rupricapra rupricarpa* L.) a 7x9 m area surrounded by a solar powered (AGRARO Sunpower S250, Landi, Bern, Switzerland) electrical fence was established (see Figure 3, 4). Electrical tape (20 mm wide, AGRARO ECO, Landi, Bern, Switzerland) was placed at 0.7, 0.95, 1.2, 1.5 and 2.1 m of height. An additional tape, not connected to power, was installed at a height of 0.5 m, to give breezing entrance to smaller herbivores, but still repel large herbivores. Inside this fence four 2x3 m plots were established. One of these plots remained unfenced to allow grazing of all herbivores except the excluded ungulates (further referred as "ungulate plot"). To exclude medium sized vertebrate grazers such as marmots (*Marmota marmot* L.) and snow hares (*Lepus timidus* L.), one plot was fenced with a 90 cm high solar powered electrical fence (AGRARO, Landi, Bern, Switzerland), commonly used in sheep herding ("marmot plot"). Another plot was fenced with chicken wire (Hortima AG, Hausen, Switzerland) with a mesh size of 1.5x1.5 cm to prevent access for small vertebrate mammals, mainly small rodents (*Clethrionomys* spp., *Microtus* ssp., *Apodemus* ssp.) and all bigger herbivores, allowing only invertebrate herbivores such as grasshoppers, caterpillars and cicadas to graze ("mouse plot"). In the last plot an exclusion of all herbivores was realized by surrounding the plot with fine-meshed (1x1 mm) mosquito net (Sala Ferramenta AG, Biasca, Switzerland) and covered with a mosquito net lined wooden frame ("insect plot"). To prevent hatching of invertebrates within the fence and their entering when opening the mesh for measurements, the enclosed area was regularly sprayed with a biodegradable insecticide (Clean kill original, Eco Belle GmbH, Waldshut-Tiengen, Germany). At least 5 m from the exclosure construction was another 2x3 m unfenced plot used as a control area where access to all herbivores was granted, thus no grazers of any size were excluded ("none"). Each plot was divided into six 1x1 m quadrates with each quadrate assigned for specific data collection.

To assess possible changes of microclimates in insect plots, microclimate control plots were erected. In these control plots the same insect plot set up was established, but the bottom 20 cm were replaced by chicken wire as also used at the mouse plot. This replacement was realized at the side away from the prevailing wind and blocked small mammals from entering the plot. Soil moisture, soil temperature and aboveground biomass did not differ between the plots, what shows that the insect plot construction does not have a significant impact on the experiment.

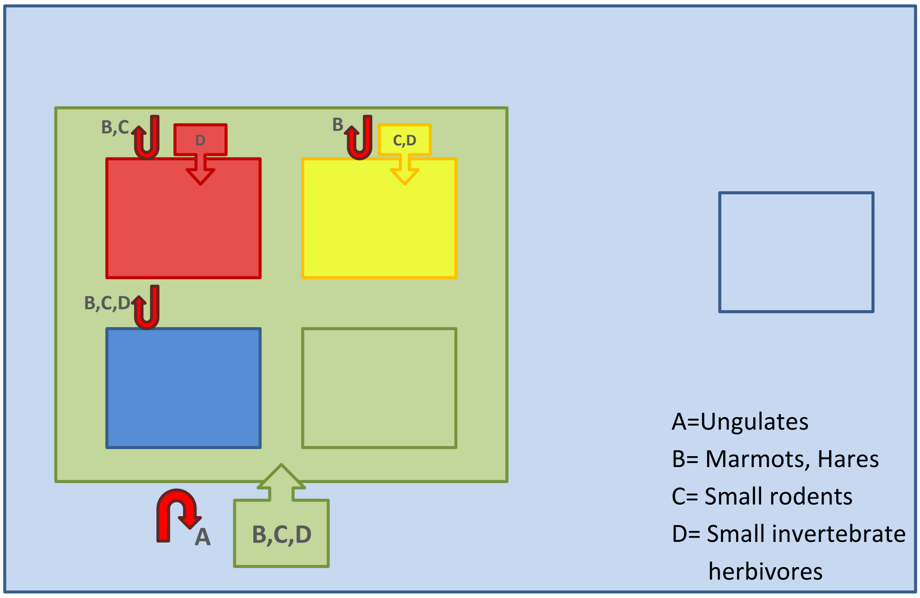


Figure 3: Experimental set up of the fences. The green rectangle represents the 7x9 m plot, which contains the four 2x3 m subplots. On the right hand side the control plot outside of the fence can be seen. Colors and letters are indicating which animals are allowed to have access to the plots. Red arrows represent an exclusion of animals. A= ungulates, B= marmots, hares, C= small rodents, D= small invertebrate herbivores.

Figure 4: Experimental set up in the field. Inside the 7x9 m fence, the four subplots can be seen. On the lower left ungulate plot, upper left mouse plot, upper right insect plot, lower right marmot plot are installed.

Soil sampling

Sampling of soils took place in late August 2009 and early September 2010. Prior to the sampling two strips of 10 cm x 1 m were cleared from vegetation and within this area three soil samples were randomly collected with a core sampler (5 cm diameter; AMS core sampler, AMS Inc, American Falls, ID, USA) in the quadrate assigned for destructive measurements in each plot at all sites. Thereby two different soil layers were distinguished. In a first step, organic soil within the dense root layer (rhizosphere) was collected and in a second step a 10 cm mineral soil core beneath the rhizosphere was taken. Since the soil has a high rock content, deeper soil sampling was not possible (Risch et al., 2008). The three cores were combined for each of the two layers separately, and immediately put on ice. Upon arrival at the field station the samples were sieved through a 2 mm sieve and stored in the cold room at 4°C until they were transferred to WSL. Samples of 2009 were stored in extraction buffer at -20 °C until I analyzed them in 2010.

Microbial biomass C

Microbial biomass C was determined using the substrate-induced method of Anderson and Domsch (1978). Briefly, glucose (5 g kg^{-1} soil) was added to 25 g of sieved mineral soil (dry weight equivalent) followed by the measurement of CO_2 production using a LI-COR 6200 gas analyzer (LI-COR Biosciences, Lincoln, NE, USA) 1-2 h after glucose addition. Prior to the analysis samples were brought to 60% water-filled pore space with addition of de-ionized water. A ten day incubation at room temperature allowed to subside spurious microbial activity resulting from sampling disturbance. Time of incubation was determined by a preliminary experiment, which showed 10 days being the minimal request for microbial activity to reach a steady state (basal respiration; Risch et al., 2010). Microbial biomass C was determined for mineral soil only as the rhizosphere layer only contains small amounts of soils. To gather enough material, up to 10 or 15 cores would have been necessary, which was not feasible given the small size of our quadrates.

Bacterial community structure

To assess the bacterial community structure, soil samples were analyzed according to Frey et al. (2009). The 16S rDNA genes of the total extracted DNA were PCR-amplified and with the help of terminal restriction fragment length polymorphism (T-RFLP) evaluated.

For DNA extraction 350-600 mg fresh soil and 750 mg glass beads (0.1 mm diameter, B. Braun Biotech International, Melsungen, Germany) were suspended in 1.3 ml DNA extraction buffer (2% CTAB, 20mM EDTA pH 8, 2 M NaCl; 100 mM Tris THAM pH 8, 2% PVP) and frozen until further treatment. Extraction was obtained using a bead beating procedure (FastPrep 120, Savant

Instruments, NY, USA) of 40 s at 5.5 m s^{-1} followed by 5 min centrifugation at 13000 rpm. Each soil sample was extracted three times with a repeated addition of 1 ml of extraction buffer and its supernatant was pooled. The pooled extract of all three extraction steps was purified with 2 ml chloroform-isoamyl alcohol (24:1 [v/v]). Precipitation of DNA was achieved through an addition of 3 ml isopropanol incubated for 1 h at 37°C followed by a 15 min centrifugation at 13000 rpm. The pellets were washed with 70% EtOH, air dried and re-suspended in 220 µl of AE Buffer (10mM Tris-Cl, 0.5mM EDTA, pH 9).

To bind PCR inhibiting substances such as humic acids, samples were processed with a BSA-pretreatment where 12.5 µl AE Buffer, 2.5 µl BSA (Fluka, Buchs, Switzerland) and 10 µl DNA were incubated for 5 min at 90°C. Amplification of bacterial 16S rDNA gene was conducted with a PCR with a fluorescent labeled (6-FAM) forward primer 27f (5'-AGAGTTTGATCMTGGCTCAG-3') and an unlabeled reverse primer 1378r (5'-CGGTGTGTACAAGGCCCGGGAACG-3'). 20 µl reaction mixture consisting of 0.2 µM of each of the primers, 1x PCR-buffer (Qiagen, Hilden, Germany), 2 µM $MgCl_2$, 0.4 mM deoxynucleoside triphosphate (Promega), 0.6 mg ml^{-1} BSA and 0.05 U/µl HotStar Taq polymerase (Qjagen) were added to 5 µl of prediluted (1:50) DNA. PCR amplification was performed with a PTC-100 thermocycler (MJ Research, Waltham, MA, USA) with the following cycling conditions: An initial activating step for HotStar Taq polymerase (15 min at 95°C) was followed by 35 amplification cycles consisting of 45 s denaturation at 95°C, 45 s annealing at 48°C, 2 min extension at 72°C and final extension for 5 min at 72°C. The PCR amplification was then ended with an additional 5 min final extension step at 72°C. The amplification success was verified by electrophoresis on a 1% agarose gel in 1% TAE buffer.

The PCR product was digested with 0.1 U of the restriction nuclease MspI (Promega) in 1% Y Tango buffer diluted with HPLC water, incubating for 3 h at 37 °C followed by a 20 min inactivation step at 65 °C. Digestion products were then desalted with Montage SEQ96 plates (Millipore Corporation, Billerica, MA, USA). For this execution, a vacuum (22-23 bar) was applied in order to let the digestion products, which were preliminarily transferred into the wells flow through the membrane. The membrane was then washed twice with 20 µl of AE-buffer, applying the same procedure. After another 20 µl AE-buffer with incubation on a shaker for 10 min at 750 rpm, DNA was re-suspended and transferred to a new PCR plate.

For T-RFLP analyses, a mix of 1 µl of the previously obtained restriction digests, 0.1 µl of the internal size standard ROX500 (Applied Biosystems, Foster City, CA, USA) and 12.9 µl HiDi formamide (Applied Biosystems, Foster City, CA, USA) was denaturated for 5 min at 95 °C and then chilled on ice water before separation on an ABI Prism 310 Genetic Analyzer (Applied Biosystems, Foster City, CA, USA) equipped with a 36 cm capillary filled with POP-4™ polymer. T-RFLP profiles were analyzed using

Genotyper v3.7 NT (Applied Biosystems, Foster City, CA, USA), where all terminal restriction fragments (T-RFs) above a signal threshold of 50 relative fluorescence units were determined manually. Relative signal intensities were obtained by dividing signal intensities of each individual T-RF by the sum of all signal intensities of a sample. This normalization is requested to compensate differences in PCR product quantity and T-RFLP fingerprint intensity among samples (Hartmann et al., 2005), which makes a comparison of signal intensities among different samples possible.

Shannon diversity (H) and Evenness (E) of species were used to measure bacterial diversity. Shannon index was calculated as follows: $H = -\sum(n_i/N)\ln(n_i/N)$, where n_i is the height of individual peaks and N the sum of all peak heights per sample. Calculation of Evenness was obtained by dividing Shannon index H by species richness R, which is basically the number of ribotypes per sample; thus $E = H/\log(R)$. Further, it should be noted that when analyzing T-RFLPs, not every peak is representing one species and therefore it is possible that species of different identity have restriction fragments with exactly the same number of base pairs.

Biotic and abiotic parameters

Soil moisture and soil temperature

Soil temperature and soil moisture were measured every other week throughout both field seasons (May-September). Measurements were conducted for the 0-10 cm depth at the previously assigned quadrate of each plot. Soil temperature was measured with a waterproof digital pocket thermometer (Barnstead International, Dubuque, IA, USA) and soil moisture was assessed at five random points within the quadrate with a Field- Scout TDR-100 (time domain reflectometer; Spectrum Technologies, Plainfield, IL, USA).

Root biomass

To determine root biomass, five rhizosphere soil samples were randomly taken within the same stripes as described before for the 0 to 10 cm depth with a soil corer (2.2 cm diameter, Giddings Machine Company, Windsor, CO, USA). Samples were dried at 30° C and roots were manually separated from soil material. Roots were then dried at 65° C for 48 h and weighted. Root biomass was averaged over the five samples.

STATISTICS

Microbial biomass C

The impact of the different sized herbivores on microbial biomass C was assessed with a three-way ANOVA based on linear mixed effect models. Fixed factors considered were treatment (none, ungulates, marmot, mouse, insect), vegetation type (short-, tall-grass) and year (2009, 2010), fence nested in vegetation type was taken as a random factor and the dependent variable was microbial biomass C. To assess effects within years, the linear mixed effect model was also applied separately for years. As model assumption of normally distributed residuals was violated, microbial biomass C was box-cox transformed with a lambda of 0.35. Least-significant difference (LSD) post-hoc pairwise comparisons tests were used for the significant factors. When exclosure effects were detected, environmental factors, potentially influencing microbial biomass C were tested using backward selection in linear regression. For both years of experiment soil moisture, soil temperature and root biomass were tested.

Bacterial community structure

As preliminary analysis and expectation suggested a difference in bacterial community structure between soil types, ordination was done separately to reduce variance for each soil type (rhizosphere and mineral). Study site was integrated into the ordination as a covariable in order to reduce effects of the blocked design.

Prior to the analysis, data was square-root transformed to prevent a too strong influence of a few high values. Initial detrended correspondence analysis (DCA) indicated that the data exhibited a linear, rather than a unimodal response, which justified the use of linear ordination methods (Leps and Smilauer, 2003). Therefore a principal component analysis (PCA) with focus scaling on inter sample distances was applied. Axis scores of PCA were then subjected to a three way type I ANOVA based on linear mixed effect model. Fixed factors considered were treatment (none, ungulates, marmot, mouse, insect), vegetation type (short-, tall-grass) and year (2009, 2010); fence nested in vegetation type was taken as a random factor and the dependent variable were axis scores of the first and second principal component, respectively. Abiotic and biotic parameters were tested in backward selection of linear regression to find out if detected patterns are related to environmental factors. To assess the impact on bacterial diversity the latter mentioned three way type I ANOVA based on linear mixed effect models was applied with the dependent variable Shannon diversity index and Evenness. Data was not transformed as the normality and homogeneity criteria were met.

Statistics was performed with IBM SPSS 19.0 (SPSS Inc., USA). Ordination was carried out using Canoco 4.5 (Microcomputer Power, USA). Significance was determined at the 0.05 probability level.

RESULTS

MICROBIAL BIOMASS C

Microbial biomass C ranged from 330 to 2734 mg kg^{-1} soil and 185 to 1545 mg kg^{-1} soil for 2009 and 2010, respectively. After the second season of exclusion (fall 2010), microbial biomass C was significantly lower than after the first season (fall 2009) for all treatments ($F_{1,156.025}$= 57.492, p<0.001). The reductions in microbial biomass C from the first to the second year differed depending on the number of herbivore groups that were excluded ($F_{4,67.081}$= 3.365, p=0.014; Figure 5). The largest reduction was found when all herbivores were excluded from grazing (Insect plot), being significantly larger compared to the control plot ("none") and all other reductions, but the ones on the mouse plot.

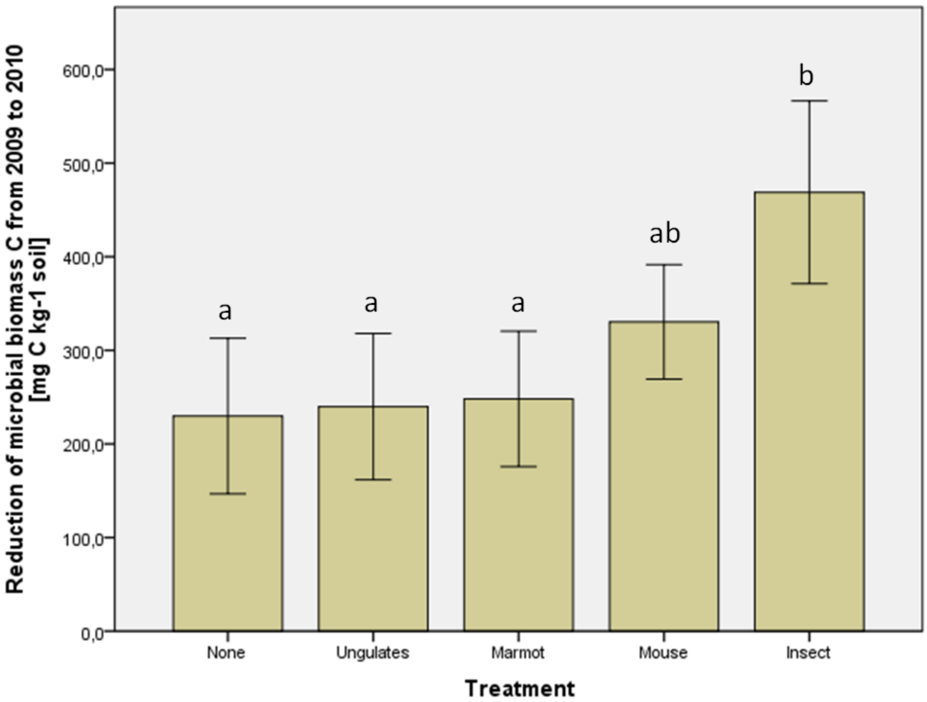


Figure 5: Impact of grazing treatment on reduction of microbial biomass C from 2009 to 2010. Data are represented as means ± SE. Data not sharing the same letter are significantly different.

Analyzing the two years separately no effect of grazing exclusion on microbial biomass C was detected after the first season ($F_{4,67.107}$=1.137, p=0.347), whereas after the second season a treatment effect could be observed ($F_{4,68.000}$=2.742, p=0.035) (Figure 6). Microbial biomass C was higher when only ungulates were excluded compared to all further exclusions of herbivores. In contrast, there was no difference in microbial biomass C to plots on which all herbivores were allowed to graze. Vegetation type did not have an influence on microbial biomass C at all (2009: $F_{1, 16.053}$=0.364, p=0.555; 2010 $F_{1, 16.000}$=0.043, p=0.838).

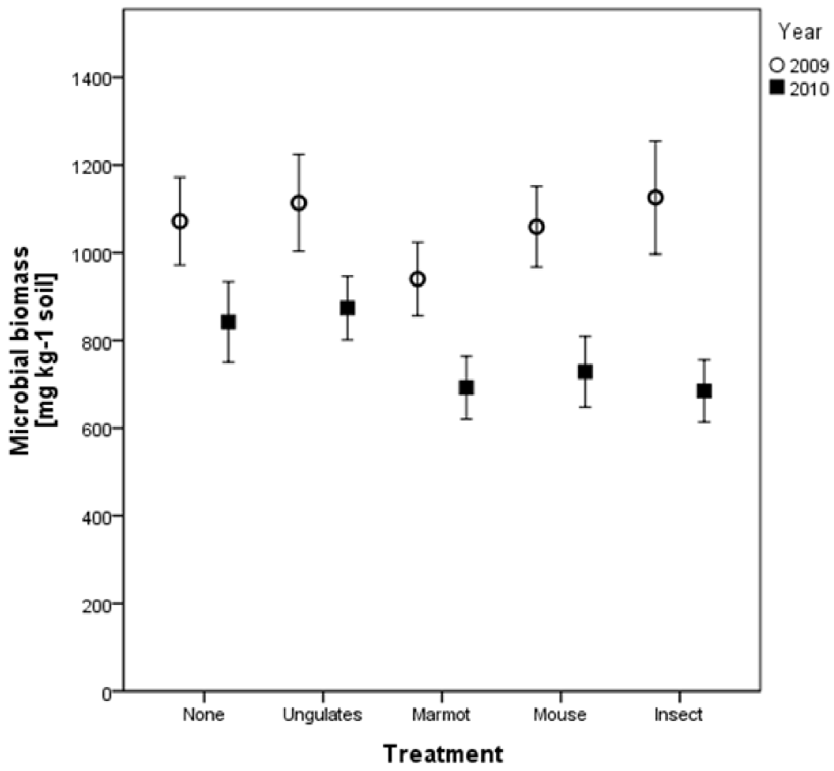


Figure 6: Impact of grazing treatment on microbial biomass C after one (2009) and two years (2010) of exclusion. Data are represented as means ± SE. Data not sharing the same letter are significantly different.

Both, soil temperature (T=2.917, p=0.004) and soil moisture (T=4.963, p<0.001) were significantly lower in 2010 than in 2009 in the SNP. Microbial biomass C was positively influenced by soil temperature (T=2.141, p=0.034, β=0.170), whereas microbial biomass C and soil moisture were negatively correlated (T=-1.990, p=0.048, β=-0.158). This negative impact of soil moisture was even more pronounced within years (2009: T=-3.338, p=0.001, β=-0.331; 2010: T=-5.361, p<0.001, β=-0.496).

Bacterial community structure

Overall, a total of 85 terminal restriction fragments with different length (ribotypes) were detected. Fragment lengths ranged from 50.16 to 496.91 bp. The relative abundance of fragments ranged from 0.19 % to 3.78 % and 0.14 % to 4.65 % for rhizosphere and mineral soil, respectively.

Rhizosphere

The first two axes of the ordination explained 51.4 % of the total variability of the bacterial community structure within the rhizosphere (Figure 7a). Axis 1 accounted for 40.5 % of the variation and 10.9 % of the variation were explained by axis 2. Bacterial community structure was clearly separated by years along the first axis ($F_{1,155.078}$=944.438, p<0.001, Figure 7b). Also on axis 2 a separation by year could explain part of the variation ($F_{1,155.218}$=6.445, p=0.012), mainly due to one fence at the study site in Grimmels and one in Stabelchod, where community structure in 2009 was different from all other sites and the year 2010. Neither treatment (axis 1: $F_{4,155.145}$=0.669, p=0.615; axis 2: $F_{4,155.407}$=0.288, p=0.886) nor vegetation type (axis 1: $F_{1,16.076}$=0.346, p=0.564; axis 2: $F_{1,16.181}$=0.705, p=0.413) explained any of the variability observed.

Both soil temperature (axis 1: T=-4.655, p<0.001; axis 2: T=3.545, p=0.001) and soil moisture (axis 1: T=-5.923, p<0.001; axis 2: T=2.464, p=0.015) were associated with the variability in microbial community structure found and particularly discriminated between the two years (Figure 7b).

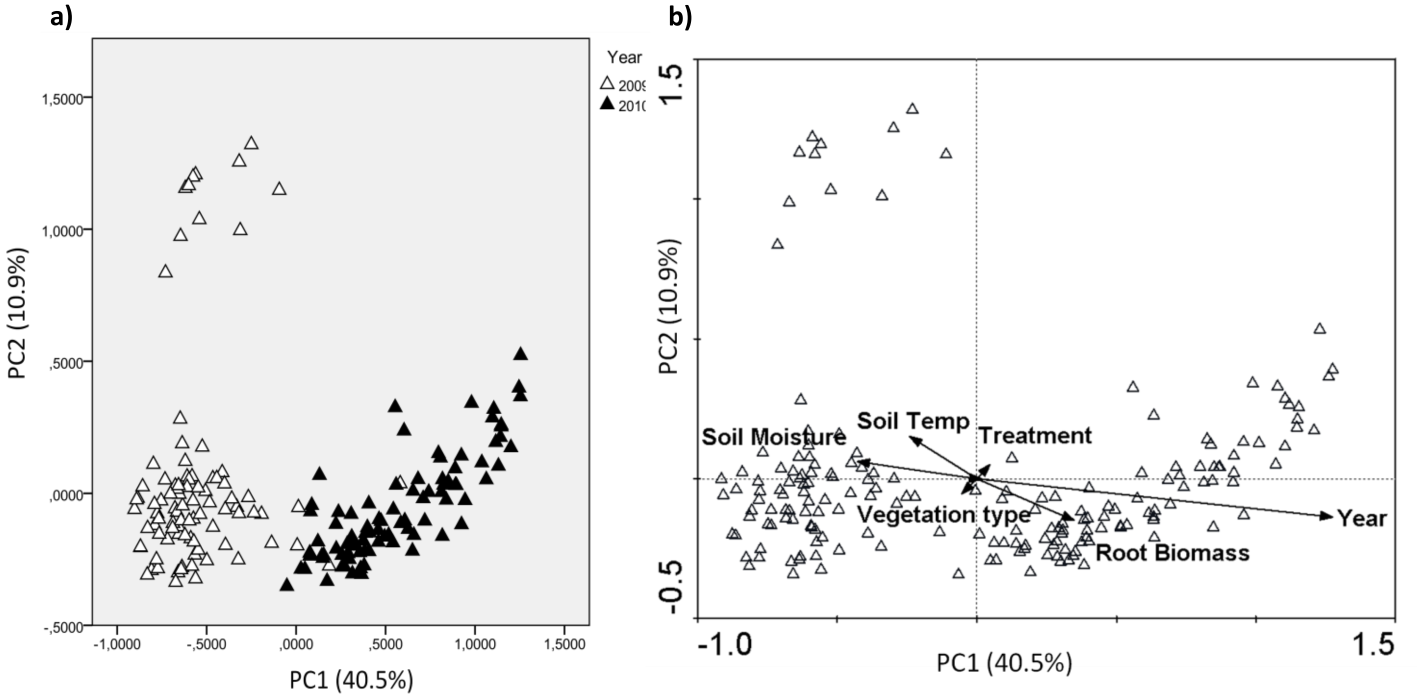


Figure 7: a) First two principal components (PC) of ordination of rhizosphere bacterial community structure data based on T-RFLP analysis of 16S DNA gene: empty triangle = 2009, filled triangle = 2010 b) Biplot of samples of the same data including biotic and abiotic parameters influencing microbial community structure.

Mineral soil

The first two axes of ordination explained 42.3 % of the total variability of the bacterial community structure within mineral soil (Figure 8a). Axis 1 accounted for 26.3 % of the variation and 16.0 % of the variability were explained by axis 2. The same annual pattern as for rhizosphere soil could be detected in the mineral soil. The microbial community structure was significantly different between the two years. The year effect was much more pronounced on the second axis ($F_{1,152.133}$=239.632, p<0.001) than on the first axis ($F_{1,154.290}$=8.326, p=0.004). Again, neither treatment (axis 1:

$F_{4,154.256}$=1.227, p=0.302; axis 2: $F_{4,152.102}$=0.651, p=0.627) nor vegetation type (axis 1: $F_{1,16.287}$=0.007, p=0.934; axis 2: $F_{1,14.071}$=0.574, p=0.461) were suitable explaining factors for the variability of the bacterial community structure.

Analysis of environmental parameters showed that soil moisture (axis 1: T=-3.049, p=0.003; axis 2: T=3.993, p<0.001), soil temperature (axis 2: T=4.337, p<0.001), root biomass (axis 1: T=-2.159, p=0.032, axis 2: T=-3.968, p<0.001) and microbial biomass C (axis 1: T=4.798, p<0.001) were associated with the variability in bacterial community structure found and particularly discriminated between the two years (Figure 8b).

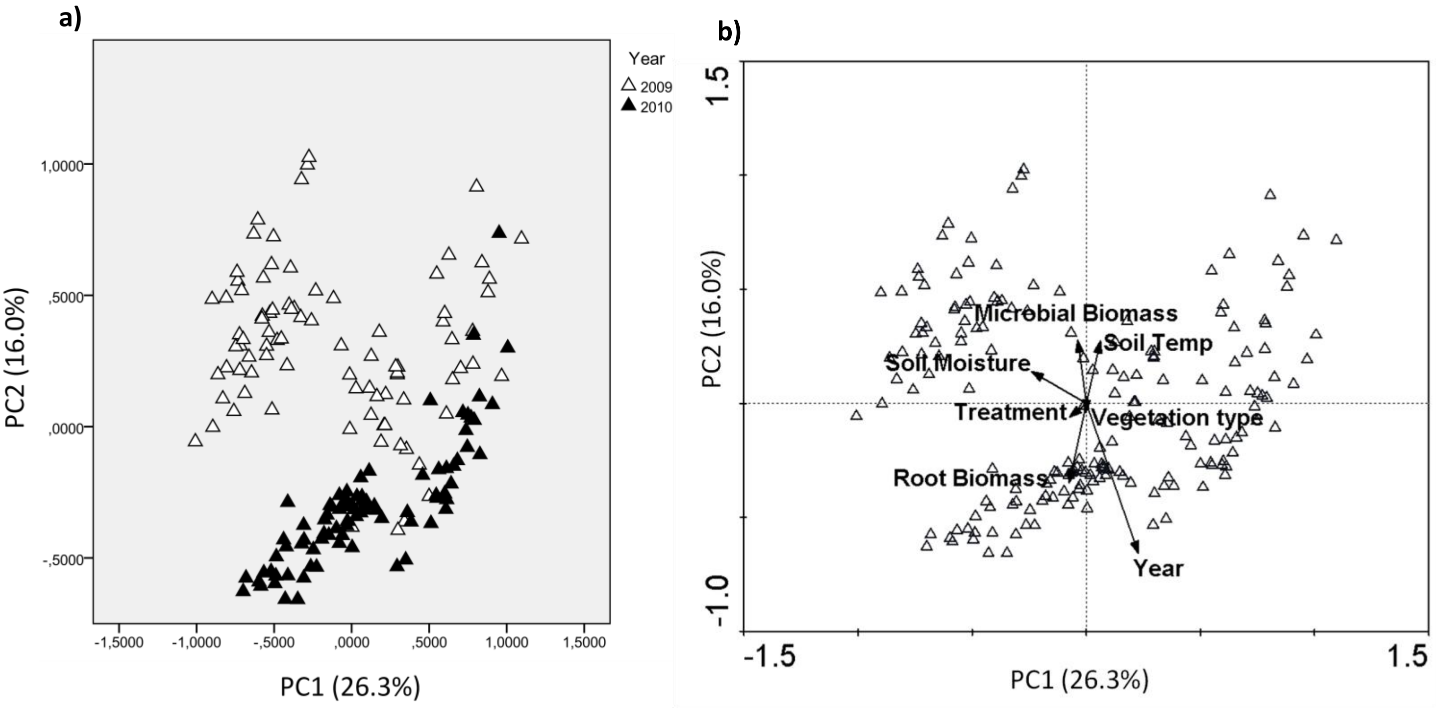


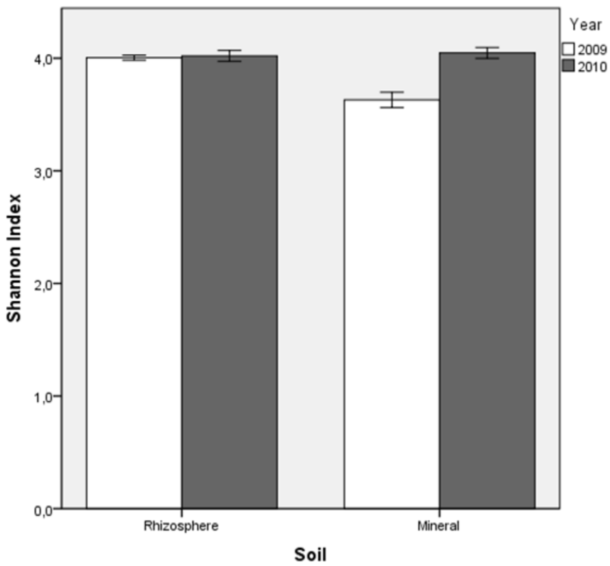
Figure 8: a) First two principal components (PC) of ordination of rhizosphere bacterial community structure data based on T-RFLP analysis of 16S DNA gene: empty triangle = 2009, filled triangle = 2010 b) Biplot of samples of the same data including biotic and abiotic parameters influencing microbial community structure.

BACTERIAL DIVERSITY

Both diversity indices showed no treatment effect (rhizosphere: Shannon index $F_{4,155.441}$=0.146, p=0.965, Evenness: $F_{4,157.077}$=0.081, p=0.606; mineral soil: Shannon index $F_{4,157.056}$=0.283, p=0.889, Evenness: $F_{4,157.408}$=0.644, p=0.632) and bacterial diversity of both soil types did not differ with vegetation type (rhizosphere: Shannon index $F_{1,14.307}$=0.960, p=0.343, Evenness: $F_{1,16.203}$=0.438, p=0.517; mineral soil: Shannon index $F_{1,16.289}$=1.062, p=0.318, Evenness: $F_{1,16.661}$=0.804, p=0.383).

The Shannon index (Figure 9a) indicated a higher bacterial diversity in rhizosphere than in mineral soil in 2009 ($F_{1,157.000}$=28.583, p<0.001), while this effect was not found in 2010 ($F_{1,157.00}$=0.154, p=0.695). Shannon diversity was higher after the second year of exclusion (2010) compared to the first year for mineral soil ($F_{1,157.065}$=26.913, p<0.001), whereas in rhizosphere soil no change in bacterial diversity was found between the two years ($F_{1,155.443}$=0.100, p=0.752). A temporal effect was also found for Evenness, indicating a more even bacterial community in 2009 compared to 2010 (rhizosphere: $F_{1,157.078}$=34.108, p<0.001; mineral soil: $F_{1,157.415}$=32.233, p<0.001) as Evenness decreased after two years of exclosure (Figure 9b). Evenness was higher in mineral soil than in the rhizosphere for both years (2009: $F_{1,157.392}$=16.914, p<0.001; 2010: $F_{1,157.000}$=8.105, p=0.005).

a)



b)

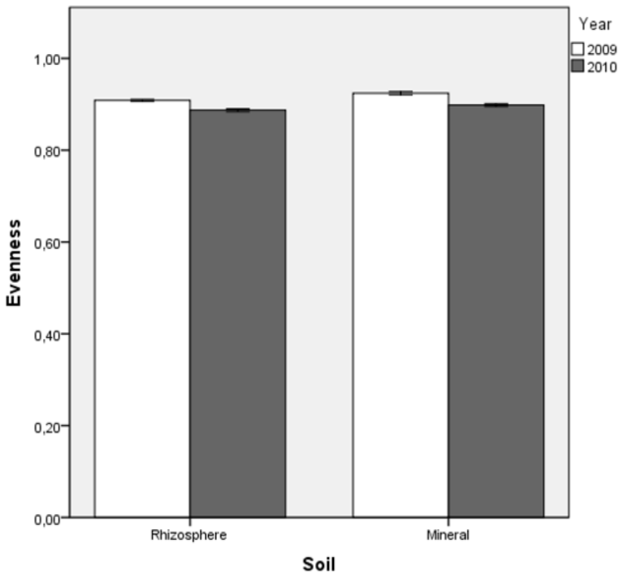


Figure 9: Soil and year differences of a) Shannon index and b) Evenness of bacterial community samples. Values are represented as means ± 1 SE

Discussion

Microbial biomass C

After the first year of exclusion no differences in microbial biomass C between treatments could be observed. After the second year of experiment, however, the successive exclusion of herbivores caused a decrease in microbial biomass C indicating that grazing tends to have a positive effect on microbial biomass C in the SNP. This finding is consistent with other studies that investigated how large herbivores, mainly cattle and sheep affected the abundance of microbes (e.g. Bardgett and Leemans, 1995; Bardgett et al., 1997; Wang et al., 2006). Generally, these authors attributed the reduction of microbial biomass C to cessation of grazing , i.e. to the lack of directly available nutrients in form of excreta as well as to changes in quality and quantity of root exudation and biomass that, have positive effects on microbial growth. However, surprisingly, in my study I did not find a difference in microbial biomass C between grazing of all animals and exclusion of ungulates where the largest release of grazing intensity and dung input would have been expected. Only when medium sized mammals such as marmots and hares were also excluded, a large reduction in microbial biomass C was observed. A possible explanation for this could either be higher grazing pressure of domestic herbivores kept as herds or the absence of medium sized herbivores in the presence of cattle in the above mentioned studies. Since medium sized mammals were still allowed to graze in our study after ungulates were excluded, their presence could have damped the found effect. As the effect was only detected after the second year of exclusion, it is seen that microbes need time to react on changes in grazing regimes. As prior to the experiment animals were allowed to graze everywhere, it could be argued that soil properties were still adapted to the pre-treatment state. Therefore, only after a whole season of exclusion soil properties could have changed what then reflected in microbial biomass C. According to this hypothesis a much stronger impact of grazing could be expected for the next years of the experiment. To see this effect, also belowground grazing should be taken into consideration. Effects of microbe feeding animals were neglected in this study. They are known to have the potency to dampen the effect of grazing, since an increase in microbial biomass C could lead to an increase of their predators (Sørensen et al., 2008). Therefore it is possible that grazing effects were partly compensated by microbial predation. This would imply that changes in microbial biomass not only influence plants and their productivity, but also higher trophic levels within the decomposer community of the soil compartment e.g. microbe-feeding nematodes, microarthropods and litter associated gastropods (Wardle et al. 2001).

Nevertheless, Sørensen et al. (2008) stated that effects of defoliation on microbial biomass C can range from positive (Mawdsley and Bardgett, 1997; Guitian and Bardgett, 2000) through neutral

(Tracy and Frank, 1998) to negative (Stark and Kytöviita, 2006; Williamson and Wardle, 2007) depending on the system considered. Bardgett and Wardle (2003) attributed the range of impacts to the balance of the wide variety of influencing mechanisms, again suggesting positive effects more likely in ecosystems with high soil fertility. Taking this into account, surprisingly no effect of vegetation type (short-grass, tall-grass) on microbial biomass C could be found, although in our ecosystems there is a difference in grazing intensity and productivity. Schütz et al. (2006) showed that red deer consume 85% of the annual produced biomass in short-grass vegetation, while only 17% are consumed in tall-grass vegetation.

A clear reduction of microbial biomass C from one year to the next was found in the SNP. Since this reduction was also found between the control plots where grazing intensity remained more or less the same, this inter-annual reduction cannot just be attributed to grazing influence. Rather, I assume this pattern has likely to be associated with climatic differences than with the exclusion of herbivores. Both annual and seasonal patterns in microbial biomass C are found in literature. Bohlen et al. (2001) found a variation in microbial biomass over the course of three years and explained it with a variation of growing-season precipitation. Additionally they could show that microbial biomass was significantly different within a year (season), exhibiting higher microbial biomass in summer than in fall or spring, with a consistent scheme among years. Bardgett et al. (1997) supported these findings and attributed the seasonal effect to changes in soil temperature and moisture conditions and increased availability in root exudates due to increased root growth and turnover in spring and summer. On average, both, soil temperature and soil moisture were significantly lower in 2010 compared to the ones measured in 2009 in the SNP. Consequently, in 2009 microbial biomass C seems to be positively influenced by soil temperature and soil moisture. In fact, there is a strong negative correlation between microbial biomass C and soil moisture within years. Considering this disagreement, lower microbial biomass C in 2010 is more likely being attributed to lower soil temperature than soil moisture.

Bacterial community structure

I could not find any influence of herbivore exclusion on bacterial community structure. A lot of studies only investigated grazing effect on total microbial community structure in terms of bacteria to fungi proportion. They mostly found the microbial community to be influenced by grazing as there were shifts in the fungal communities. This is emphasized by Frank et al. (2003) who found a difference in soil microbial composition between grazed and ungrazed plots, but as application of fungicide suppressed the difference of microbial community structure; it was shown that difference originated from fungal communities. However, Frank et al. (2003) stated that no conclusions about bacterial communities were allowed to made. The few studies that investigated grazing effect on soil bacterial community structure, all reported effects of grazing exclusion on the structure of bacterial communities, thus contrasting my findings. For example, Zhou et al. (2010) found differences in bacterial community structure in grasslands of different grazing intensities. Low and medium sheep grazed sites had different microbial communities from not and heavily grazed sites. Attard et al. (2008) provided evidence that alterations of the grazing intensity resulted in a shift in bacterial community structure in a microcosms experiment with simulated grazing (clipping) and urine application on previously ungrazed sites and cessation of grazing on previously disturbed sites. These alterations in management resulted in changes in microbial community structure with faster shifts in previously undisturbed sites. Similarly, Clegg et al. (2006) found a grazing effect of cattle on parts of the microbial community composition in managed grasslands, mainly on pseudomonad community structure. Grayston et al. (2001) also reported that pseumonads responded rapidly to increased nutrient availability, which could be a consequence of grazing. Research by Singh et al. (2009) support this as they have shown that addition of cattle urine results in changes in microbial activity and N availability. Both Attard et al. (2008) and Clegg et al. (2006) explained their findings by changes in the inputs of urine and faeces, changes in plant composition and soil structure.

Although the two grasslands types studied in SNP showed obvious differences in vegetation composition and productivity, I could not find any influence of vegetation type on bacterial community structure. This is consistent with findings of Marshall et al. (2011), who reported resistance of soil microbial communities to removal of plant functional groups. To explain the results they stated that it may take a longer period of time to produce detectable changes in microbial community structure and the outcome was dependent on several other influencing factors. Similarly, also Kennedy et al. (2004) found only a small effect of plant species on the composition of microbes in the soil, as chemical treatments (nitrogen and lime supply) outweighed plant effects. Contrasting the findings of these two studies and my own results, Grayston et. al. (2001), reported variation in microbial community structure with regard to grassland type and explained these findings by qualitative and quantitative variation in carbon compounds released by plants. Also, Waldrop and Firestone (2006) could support the hypothesis of different plant communities being associated with distinct microbial communities. Zhou et al. (2010) found a grazing induced shift in dominant plant species, which possibly was responsible for the change in bacterial community structure. However, since they could not separate effects of grazing from vegetation influence, these results cannot be attributed to vegetation alone. This would match results of Attard et al. (2008) who found both shifts in bacterial community structure and in plant species composition. However, changes in the bacterial community structure occurred prior to changes in plant species composition. Waldrop and Firestone (2006) attributed the lack of plant community effect on microbial community structure to too small differences among plant species in terms of quantity and quality of litter inputs to soil or microclimatic effects. This argument seems not reasonable for my own study, as vegetation types were clearly distinct. Overall, I think that the mechanistic relationship between plant and microbial communities is still not very well understood regarding the confusing and contradictory results found in the few studies carried out to date.

I detected distinct differences in bacterial community structure from one year to the next. This inter-annual pattern was found for both soil layers, being more pronounced in the rhizosphere. Several studies could also document temporal patterns in microbial community structure, yet mostly seasonal effects were found (e.g. Waldrop and Firestone, 2006; Bardgett et al., 1999; Grayston et al., 2001). Seasonal variation in microbial community structure could originate from variation in resource availability, soil temperature and soil moisture, which may be overriding controls of microbial community composition. This study investigated only between year effects, but the years were distinctly different in terms of environmental factors and therefore they might have the same effect like seasons in other studies. This assumption is supported by Waldrop and Firestone (2006), who found a seasonal, but not an inter-annual pattern in microbial community structure, since environmental factors varied only within seasons and not between years.

In my study, microbial community structure was correlated with biotic and abiotic factors measured, such as root and microbial biomass, soil moisture and soil temperature. All these factors were different between the two years with microbial biomass and soil moisture being higher and soil temperature and root biomass being lower in 2009 than in 2010. As these factors explained the inter-annual differences, this would suggest that they are likely driving forces for bacterial community structure. It is possible that the correlation of bacterial community structure and microbial biomass C has a non-biological background. Hartmann et al. (2005), who also found a strong correlation between bacterial community structure and soil microbial biomass C, assumed that this relation could result from the strong correlation of soil microbial biomass C and soil DNA content, which is the basis for the T-RFLP analysis. As microbial biomass C was also influenced by soil temperature and soil moisture, it is possible that the correlation of microbial biomass C to the community structure is only artificial. However, root biomass could alter soil structure and therefore creating microhabitats in the soil suitable for different microorganisms (Marshall et al., 2011; Bardgett et al., 2005). Lower root biomass would also indicate lower amounts of root exudates, which could have affected microorganisms. This is also the reason why we can expect differences in soil layers, since bacterial communities in the rhizosphere are directly in contact with root exudates and herbivore faeces. In addition we can think of a stronger influence of environmental abiotic parameters to which rhizosphere microorganisms are more directly exposed. Since root exudates and faeces are known to play important roles in regulating microbial properties, we would expect faster and larger changes in rhizosphere than in mineral soil when manipulating grazing. Results of more pronounced distinction of bacterial community structure within rhizosphere would fit the assumptions of the rhizosphere being more exposed to root exudates and environment. Soil moisture could influence microbes as soil water content affects the diffusion of soluble carbon and nutrients to microbes in the soil (Stark and Firestone, 1995). Soil temperature is thought to be related to soil bacterial community structure via accelerated soil processes and root growth (Lynch and Panting, 1982), which, in turn provide a variety of nutrients.

A wide range of studies found environmental factors shaping bacterial communities. Zhou et al. (2010) showed that besides grazing intensities soil moisture and pH were best indicators of the changes in soil bacterial community structure. Bell et al. (2008) hypothesized that the activity of microbial communities are primarily regulated by moisture, showing that soil moisture together with soil temperature and resource availability were driving forces of soil microbial dynamics in desert grasslands. Also Waldrop and Firestone (2006) attributed changes in microbial community structure to soil water content and temperature. Further, a microcosm study of Kennedy et al. (2004) revealed that soil physical-chemical factors as lime and nitrogen affected bacterial community structure in upland acidic grassland soil more than plant species composition.

The importance of environmental factors on bacterial community structure was also emphasized by Attard et al. (2008). Although their study found a shift in bacterial community composition after cessation and application of grazing, it was shown that it also corresponded to the resulting change in environmental conditions. Fewer changes in bacterial community were found in inner soil fractions that were less exposed to environmental variation. Further, they found stronger effects with regard to application rather than cessation of grazing as changes in environmental conditions due to cessation of grazing were less pronounce than changes with simulation of grazing by clipping and application of urine.

Bacterial diversity

Bacterial diversity was not influenced by grazing in my study, which contrasts findings from other studies. Bardgett et al. (2001) showed, for example, a reduced Evenness of microbial communities with increasing grazing intensity, reaching lowest values in the most heavily grazed sites. This indicates that microbial community becomes more even as the intensity of grazing declines. Also Zhou et al. (2010) found variations in bacterial diversity, which could be attributed to grazing intensity with intermediate grazing resulting in the most divers microbial community. As their study also found grazing intensity impact on bacterial community structure, this would indicate that shifts in bacterial communities have consequences for bacterial diversity. They could not provide a single explanation; rather they listed various potential explanatory factors such as fecal deposition, shifts in rhizosphere exudation and aboveground plant community composition and changes in soil texture and permeability, which could directly and indirectly influence soil bacterial community composition and diversity. Further they reported results from other studies, which showed intermediate grazing to increase plant productivity, stimulation of net N mineralization, nitrification and ammonification, and potentially denitrification, which might support higher soil bacterial diversities. Exhibiting highest diversity at a moderate grazing level would match the intermediate disturbance hypothesis (Connell, 1978).

Again, vegetation type did not influence bacterial diversity in my study. This is consistent with data from McCaig et al. (2001), who showed that bacterial community diversity in less fertile unimproved and fertilized improved grasslands did not differ. However, the authors doubt that their method reveals differences in community structure, since Bardgett et al. (1997) and Grayston et al. (2001) found higher microbial diversity in unimproved than in improved grasslands.

Like microbial biomass C and bacterial community structure, bacterial diversity also showed an annual pattern. The temporal pattern for the Shannon index was only found in mineral soil, indicating a higher bacterial diversity after the second year of exclusion. On the other hand, Evenness different for both soil types, each having lower values after the second year of exclusion. This results in an increased diversity even though a reduction of Evenness. Shannon index is known to increase if either there are new unique species or an increased Evenness. As I found a decreasing Evenness, the higher diversity can be attributed to additionally occurring species. A decrease of Evenness indicates more variation in communities between the species. Less Evenness would indicate a selection for specific bacterial groups (McCaig et al., 2001), but this would not match the higher diversity indicated by Shannon index.

As for microbial biomass C there was also a difference in microbial diversity between the control plots during the two years of experiment, indicating that the increase in bacterial diversity cannot directly be attributed to cessation of grazing. Not only diversity indices showed a year effect, but also the number of ribotypes (an equivalent to species richness) was different between the years, which can influence diversity indices a lot. These results could occur artificially as T-RFLP peaks were selected manually. But overall, results of bacterial community structure reflect findings from diversity indices. Zhou et al. (2010) could show a relation between bacterial community structure and diversity, as ordination and diversity index analysis revealed the same results. On the other hand microbial biomass and community structure do not necessarily have to be related. While microbial biomass C was influenced by grazing, bacterial community structure did not change in relation to grazing exclusion. This independence is supported by Grayston et al. (2001) who found little temporal variation in microbial biomass C while soil microbial community structure varied quantitatively, possibly because soil microbial community structure was more related to environmental variables as soil temperature and moisture, plant productivity and therefore substrate supply. Microbial biomass C was, in contrast, reported to be related to qualitative aspects of resource availability. This is consistent with findings of Waldrop and Firestone (2006), who reported a change in microbial community structure over time even though microbial biomass remained stable. They attributed these findings to the fact that microbial community composition was controlled by climatic factors, whereas microbial biomass should be more related to total input of carbon from plants to soil. In fact, both microbial biomass C and bacterial community structure are influenced by biotic and abiotic conditions, as the effect of different years indicate, but only microbial biomass C starts showing a reaction to grazing removal. This would match the previous argument of dependence on carbon input into soil.

CONCLUSION

Excluding the different herbivores did not result in changes of the bacterial community structure, rather I found that abiotic and biotic parameters were associated with the variability found. However, the abundance of microbial biomass C seemed to be influenced by grazing as two years of exclusion resulted in a reduction in microbial biomass C. Yet, also, microbial biomass C was related to abiotic environmental conditions, making a clear delineation of the cause difficult. Two years of exclusion might be insufficient to show the impact of grazing on soil microbial abundance and community structure, since some proposed mechanisms affect microorganisms only indirectly. Even if there were changes aboveground, it likely takes time until microorganisms are able to react, since a functioning ecosystem has some resilience. Nevertheless, the fact that microbial biomass started to show an influence of grazing treatment after the second year of exclusion could indicate that over longer time frames, grazing exclusion will alter the abundance and structure of the microbial community. Studies that reported grazing effects on microorganisms mainly used long-time exclosures (e.g. 16 years (Zhou et al., 2010); 37 years (Bardgett et al., 1997). Yet, even long-time exclusion of grazers does not necessarily result in alterations of microbial properties as Tracy and Frank (1998) did not find any differences, even though herbivore exclusion lasted 35-40 years.

Understanding the impact of different sized herbivores is important in terms of ecosystem management and predictions of the reaction of the ecosystem to the alternation of herbivore abundance and composition, which could occur by reintroduction of predators, outbreaks of diseases or parasites or changes in hunting law. It is important to continue research on the impact of herbivores on microorganisms, since they are involved in processes, which affect the success of all trophic levels.

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APPENDIX

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Numbers in the header are representing fragment length (bp) and corresponding table elements indicate relative abundance (%) of that fragment in the sample.

A

Soil	Year	Study Site	Fence	Treatment	Veg type	Root Biomass	Soil Temp	Soil Moisture	50.16	50.98	53.10	55.12	56.74	59.47	60.15	62.21	63.75	64.81	66.98	67.92	69.93	71.07	72.60	73.02	80.71	83.81	84.87	87.25
Rhizosphere	2009	1	1	1	1	394.67	14.18	36.90	0.582	0.665	0.000	0.000	0.000	0.000	1.359	0.755	0.869	0.838	0.849	0.789	0.640	0.000	0.000	0.536	0.588	0.547	1.216	0.976
Rhizosphere	2009	1	1	2	1	436.77	14.64	37.40	2.229	1.113	0.000	0.000	0.880	0.000	0.000	0.329	0.000	1.393	0.935	0.835	1.107	0.899	1.249	0.000	0.000	0.379	0.000	1.200
Rhizosphere	2009	1	1	3	1	557.81	14.58	44.95	0.754	0.000	0.000	0.000	0.378	0.000	2.208	0.929	1.127	1.145	1.273	1.618	0.827	0.000	0.000	0.522	0.000	0.575	1.398	1.053
Rhizosphere	2009	1	1	4	1	405.20	14.36	44.45	0.501	0.573	0.000	0.000	0.000	0.700	1.141	0.756	0.638	0.752	0.743	0.757	0.643	0.627	0.542	0.634	0.925	0.944	1.047	0.829
Rhizosphere	2009	1	1	5	1	431.51	13.66	39.05	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Rhizosphere	2009	1	2	1	2	1457.66	12.95	23.28	0.353	0.451	0.000	0.000	0.000	0.655	0.000	0.951	0.944	0.828	0.905	0.882	0.000	0.649	0.000	0.670	0.621	0.575	1.154	0.812
Rhizosphere	2009	1	2	2	2	884.07	12.70	23.90	0.551	0.714	0.336	0.000	0.543	0.000	1.597	1.053	1.202	1.225	1.251	1.417	0.785	0.554	0.572	0.773	0.308	0.405	1.203	0.911
Rhizosphere	2009	1	2	3	2	1326.10	12.60	18.92	0.412	0.401	0.215	0.000	0.000	0.000	1.351	0.979	0.821	0.814	0.872	0.819	0.529	0.659	0.617	0.577	0.625	0.593	0.728	0.643
Rhizosphere	2009	1	2	4	2	878.81	12.28	21.87	0.465	0.000	0.000	0.000	0.000	0.600	1.865	1.057	0.712	0.935	0.876	1.147	0.751	0.000	0.581	0.571	0.516	0.584	1.131	0.974
Rhizosphere	2009	1	2	5	2	599.90	11.76	27.27	0.523	0.000	0.000	0.000	0.000	0.000	1.821	0.000	0.797	0.895	0.988	1.206	0.824	0.716	0.546	0.636	0.620	0.656	1.162	0.981
Rhizosphere	2009	1	3	1	1	584.12	14.04	43.04	0.451	0.507	0.000	0.000	0.000	0.000	1.079	0.836	0.766	0.857	0.874	0.927	0.477	0.501	0.363	0.466	0.352	0.507	1.013	0.785
Rhizosphere	2009	1	3	2	1	373.62	14.20	33.68	0.000	0.000	0.000	0.000	0.000	0.000	1.978	0.000	0.000	0.702	0.603	0.606	0.606	0.792	0.438	0.548	0.770	0.631	0.882	0.741
Rhizosphere	2009	1	3	3	1	394.67	14.78	48.15	2.122	1.206	0.000	0.000	0.596	0.000	0.000	0.000	0.000	0.000	1.569	0.000	0.841	0.694	1.096	0.894	0.664	0.444	0.000	0.000
Rhizosphere	2009	1	3	4	1	684.10	14.50	39.65	1.555	0.392	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.864	0.647	0.661	0.711	0.594	0.000	0.668	0.396
Rhizosphere	2009	1	3	5	1	352.57	13.84	46.30	0.877	0.993	0.000	0.000	0.000	0.000	1.817	0.982	1.269	1.273	1.250	1.371	0.773	0.604	0.000	0.511	1.046	0.977	1.862	1.364
Rhizosphere	2009	1	4	1	2	731.46	12.88	43.25	0.358	0.000	0.000	0.000	0.000	0.000	1.571	0.940	0.657	0.701	1.108	0.701	0.672	0.733	0.577	0.512	0.491	0.481	1.100	0.930
Rhizosphere	2009	1	4	2	2	1373.46	13.06	25.60	0.568	0.646	0.000	0.000	0.000	0.443	0.868	0.883	0.954	0.984	1.075	1.011	0.630	0.606	0.000	0.575	0.840	0.819	1.096	0.765
Rhizosphere	2009	1	4	3	2	478.87	12.58	32.73	0.933	1.201	0.000	0.000	0.000	1.541	1.246	1.614	1.356	1.418	1.216	1.870	0.822	0.526	0.000	0.964	0.658	0.000	2.362	1.567
Rhizosphere	2009	1	4	4	2	694.63	13.04	29.73	0.588	0.741	0.000	0.000	0.000	0.000	1.605	0.911	0.916	1.033	0.724	0.828	0.543	0.000	0.000	0.000	0.000	0.000	1.103	0.951
Rhizosphere	2009	1	4	5	2	694.63	12.60	28.27	0.408	0.000	0.275	0.000	0.000	0.537	1.670	0.778	0.722	0.971	0.879	1.223	0.710	0.000	0.540	0.466	0.869	0.863	0.905	0.692
Rhizosphere	2009	2	5	1	1	452.56	14.94	56.15	1.433	0.538	0.000	0.000	0.317	0.000	0.000	0.257	0.000	0.000	0.000	0.876	1.058	0.000	0.674	0.904	0.648	0.472	0.471	0.390
Rhizosphere	2009	2	5	2	1	321.00	13.34	41.95	0.692	0.711	0.433	0.000	0.485	0.806	1.523	0.986	1.346	1.548	1.678	2.208	1.147	0.000	0.000	0.875	0.524	0.712	1.501	1.189
Rhizosphere	2009	2	5	3	1	278.90	14.20	63.00	0.519	0.000	0.282	0.000	0.000	0.396	1.445	0.805	0.845	0.905	0.875	0.872	0.707	0.668	0.535	0.565	0.508	0.579	1.027	0.809
Rhizosphere	2009	2	5	4	1	726.20	13.98	61.50	0.524	0.000	0.000	0.000	0.287	0.000	1.853	1.273	0.805	0.831	0.885	0.877	0.654	0.892	0.913	0.604	0.424	0.432	1.042	0.858
Rhizosphere	2009	2	5	5	1	810.40	14.28	52.95	2.868	1.897	0.000	0.000	1.280	0.000	0.677	0.000	0.000	1.387	1.235	1.065	0.651	1.221	1.564	0.000	0.000	0.000	0.519	1.176
Rhizosphere	2009	2	6	1	2	1426.09	15.68	14.05	0.818	0.960	0.000	0.000	0.000	0.934	1.304	1.234	1.194	1.359	1.493	1.825	1.042	0.674	0.711	0.858	0.000	0.693	1.236	1.106
Rhizosphere	2009	2	6	2	2	2362.78	13.62	40.36	0.483	0.567	0.000	0.000	0.000	0.636	0.689	0.799	0.719	0.761	0.765	0.826	0.597	0.618	0.000	0.638	0.390	0.482	1.056	0.832
Rhizosphere	2009	2	6	3	2	999.84	13.68	28.85	0.471	0.548	0.000	0.000	0.000	0.464	0.756	0.843	0.847	0.726	0.758	0.703	0.470	0.630	0.000	0.574	0.252	0.403	1.245	0.891
Rhizosphere	2009	2	6	4	2	915.64	13.22	27.35	0.000	0.878	0.000	0.000	0.000	0.650	1.100	1.006	1.176	1.460	1.060	1.578	0.655	0.517	0.000	0.527	0.000	0.510	1.577	1.175
Rhizosphere	2009	2	6	5	2	894.59	13.48	41.08	0.000	0.548	0.000	0.000	0.000	0.918	1.271	0.851	0.867	1.111	1.390	0.824	0.000	0.423	0.000	0.650	0.000	0.456	1.191	0.898
Rhizosphere	2009	3	7	1	1	1157.71	11.62	44.25	0.000	0.503	0.000	0.000	0.000	0.441	0.701	1.083	0.802	0.790	0.835	0.696	0.000	0.683	0.000	0.589	0.545	0.389	0.977	0.745
Rhizosphere	2009	3	7	2	1	720.94	12.78	35.35	0.658	0.684	0.000	0.000	0.000	0.655	1.067	1.003	0.765	1.097	1.006	1.305	0.654	0.631	0.000	0.641	0.000	0.621	1.222	1.098
Rhizosphere	2009	3	7	3	1	1289.27	11.96	45.27	0.441	0.505	0.000	0.000	0.000	0.975	0.997	1.111	0.987	0.948	0.947	1.052	0.658	0.731	0.000	0.604	0.283	0.307	1.144	0.834
Rhizosphere	2009	3	7	4	1	1068.25	12.24	42.13	0.449	0.518	0.000	0.000	0.000	0.419	0.552	1.218	0.785	0.907	0.902	1.027	0.471	0.638	0.000	0.619	0.366	0.368	1.211	0.922
Rhizosphere	2009	3	7	5	1	705.15	11.88	53.73	0.000	0.561	0.000	0.000	0.000	0.683	0.640	0.918	0.727	0.977	0.751	1.042	0.418	0.521	0.000	0.570	0.564	0.575	1.164	0.891
Rhizosphere	2009	3	8	1	2	494.66	12.36	53.33	0.000	0.666	0.000	0.000	0.000	0.758	1.048	1.092	0.876	1.091	1.002	1.284	0.591	0.716	0.000	0.607	0.364	0.391	1.247	0.883
Rhizosphere	2009	3	8	2	2	2131.24	11.64	54.60	0.496	0.665	0.000	0.000	0.000	0.552	0.781	0.848	0.898	0.940	1.285	0.919	0.617	0.000	0.000	0.590	0.420	0.386	1.361	0.959
Rhizosphere	2009	3	8	3	2	478.87	11.22	53.93	0.000	0.693	0.000	0.000	0.000	0.768	0.815	1.163	1.139	1.066	1.079	1.139	0.542	0.779	0.000	0.540	0.335	0.372	1.369	0.968
Rhizosphere	2009	3	8	4	2	363.10	10.94	55.07	0.405	0.455	0.000	0.000	0.000	0.242	0.000	0.595	0.615	0.740	1.110	0.788	0.000	0.813	0.000	0.684	0.787	0.693	0.974	0.737
Rhizosphere	2009	3	8	5	2	284.16	11.54	54.20	0.450	0.510	0.000	0.000	0.000	0.319	0.000	0.664	0.663	0.757	1.006	0.912	0.000	0.766	0.000	0.644	0.595	0.545	1.028	0.738
Rhizosphere	2009	4	9	1	1	447.30	15.66	21.34	0.642	0.572	0.000	0.000	0.000	0.505	0.775	0.733	0.893	1.315	0.976	1.463	0.593	0.507	0.000	0.573	0.000	0.440	1.494	1.005
Rhizosphere	2009	4	9	2	1	310.48	15.34	31.13	1.027	1.083	0.000	0.000	0.000	1.425	1.164	1.439	1.256	1.308	1.360	0.465	0.465	0.000	0.000	0.456	0.000	0.000	2.138	1.480
Rhizosphere	2009	4	9	3	1	815.66	15.98	16.00	0.000	0.791	0.000	0.000	0.000	0.784	0.944	0.968	0.984	1.099	1.023	1.127	0.528	0.633	0.000	0.472	0.000	0.410	1.659	1.220
Rhizosphere	2009	4	9	4	1	952.48	15.30	19.53	0.871	1.138	0.000	0.000	0.000	0.710	1.246	1.094	1.351	1.385	0.953	1.241	0.510	0.346	0.000	0.504	0.000	0.409	2.131	1.353
Rhizosphere	2009	4	9	5	1	331.53	15.48	32.65	0.646	0.000	0.000	0.000	0.000	0.585	0.804	0.802	0.875	0.947	0.774	0.974	0.000	0.693	0.000	0.679	0.269	0.336	1.376	0.942
Rhizosphere	2009	4	10	1	2	768.30	13.88	15.33	0.614	0.744	0.000	0.000	0.000	0.000	0.686	0.685	0.961	1.007	0.844	1.016	0.733	0.582	0.000	0.569	0.274	0.572	1.473	1.119
Rhizosphere	2009	4	10	2	2	794.61	14.04	18.07	0.433	0.488	0.000	0.000	0.000	0.569	0.770	0.768	1.077	0.896	0.973	0.946	0.564	0.596	0.000	0.647	0.266	0.399	1.168	0.797
Rhizosphere	2009	4	10	3	2	999.84	12.86	22.00	0.490	0.585	0.000	0.000	0.000	0.599	0.610	0.707	0.979	0.891	0.793	0.800	0.511	0.552	0.000	0.592	0.297	0.336	1.129	0.756
Rhizosphere	2009	4	10	4	2	805.13	13.66	20.00	0.413	0.571	0.000	0.000	0.000	0.515	0.818	0.810	0.978	1.001	0.877	1.160	0.377	0.423	0.000	0.483	0.000	0.423	1.627	1.045
Rhizosphere	2009	4	10	5	2	673.58	12.24	31.13	0.000	0.606	0.000	0.000	0.000	0.407	0.617	0.665	0.978	0.977	0.926	0.863	0.672	0.629	0.000	0.663	0.375	0.414	1.210	0.847
Rhizosphere	2009	5	11	1	1	699.89	15.70	31.40	0.000	1.455	0.000	0.000	0.269	0.000	0.521	0.000	0.283	0.000	0.306	0.000	0.000	2.463	0.000	1.104	1.024	0.751	0.756	0.419
Rhizosphere	2009	5	11	2	1	799.87	16.62	14.20	0.589	0.607	0.000	0.000	0.324	0.000	2.513	1.057	0.705	0.944	0.805	0.953	1.067	1.337	0.607	1.001	0.432	0.460	1.061	0.647
Rhizosphere	2009	5	11	3	1	568.33	16.18	17.67	0.433	0.000	0.275	0.000	0.420	0.000	2.009	1.158	0.590	0.892	0.749	0.996	0.808	0.868	0.760	0.762	0.314	0.418	1.091	0.786
Rhizosphere	2009	5	11	4	1	573.59	16.86	11.47	0.336	0.000	0.000	0.000	0.000	0.000	2.800	0.000	0.583	0.878	0.666	0.867	0.920	1.180	0.780	0.933	0.000	0.000	0.798	0.583
Rhizosphere	2009	5	11	5	1	347.31	15.84	19.67	0.944	1.141	0.000	0.000	0.225	0.000	0.379	0.000	0.246	0.000	0.324	0.000	0.000	1.581	0.000	0.956	0.000	0.715	0.640	0.441
Rhizosphere	2009	5	12	1	2	531.49	16.56	16.40	0.470	0.000	0.000	0.000	0.000	0.000	2.498	1.246	0.760	0.762	0.912	0.798	1.112	0.000	0.735	0.560	0.000	0.329	1.131	0.902
Rhizosphere	2009	5	12	2	2	778.82	16.76	17.80	1.929	1.323	0.835	0.000	0.789	0.000	0.862	0.000	0.440	0.000	0.000	0.000	0.000	1.293	0.999	1.336	0.000	0.000	0.000	0.460
Rhizosphere	2009	5	12	3	2	789.35	15.88	20.87	2.292	1.534	1.233	0.000	0.921	0.000	1.059	0.000	0.459	0.000	0.523	0.000	0.377	0.562	1.602	0.536	0.000	0.000	0.000	0.000
Rhizosphere	2009	5	12	4	2	405.20	16.84	17.80	0.437	0.532	0.000	0.000	0.000	0.000	1.456	1.274	0.704	0.853	0.675	0.884	0.945	0.915	0.983	0.000	0.000	0.253	1.021	0.977
Rhizosphere	2009	5	12	5	2	468.35	16.36	25.60	0.391	0.469	0.331	0.000	0.278	0.000	1.508	0.885	0.761	0.964	0.760	1.029	0.734	0.802	0.640	0.636	0.000	0.365	1.069	0.766
Rhizosphere	2009	5	13	1	1	526.23	14.50	20.40	0.372	0.000	0.000	0.000	0.000	0.000	1.812	0.000	0.591	0.676	0.733	0.686	0.663	0.679	0.601	0.634	0.446	0.407	1.065	0.733
Rhizosphere	2009	5	13	2	1	741.99	15.48	22.47	0.642	0.643	0.270	0.000	0.000	0.000	1.822	1.187	0.786	1.031	0.816	1.288	0.790	0.724	0.728	0.000	0.000	0.452	1.125	0.801
Rhizosphere	2009	5	13	3	1	547.28	15.32	20.67	0.741	0.000	0.000	0.000	0.000	0.000	2.461	0.890	0.858	0.924	0.789	1.175	1.010	0.771	0.799	0.756	0.382	0.544	1.285	0.929
Rhizosphere	2009	5	13	4	1	673.58	14.40	19.93	0.433	0.539	0.280	0.000	0.000	0.000	1.755	0.985	0.747	1.111	0.872	1.368	0.740	0.891	0.801	0.000	0.409	0.515	0.975	0.771
Rhizosphere	2009	5	13	5	1	847.23	14.08	28.87	0.650	0.000	0.000	0.000	0.000	0.000	2.250	0.000	1.360	1.023	0.831	1.161	0.999	0.000	0.439	0.632	0.000	0.509	1.763	1.188
Rhizosphere	2009	5	14	1	2	705.15	13.56	29.47	0.544	0.556	0.354	0.000	0.300	0.000	1.700	0.761	0.778	0.804	0.793	1.017	0.726	0.654	0.549	0.501	0.827	0.852	1.256	0.889
Rhizosphere	2009	5	14	2	2	768.30	12.42	24.67	0.386	0.403	0.000	0.000	0.000	0.374	0.000	0.846	0.677	0.771	0.894	0.824	0.483	0.724	0.000	0.476	0.865	0.814	1.105	0.823
Rhizosphere	2009	5	14	3	2	668.31	12.16	22.20	0.457	0.421	0.000	0.000	0.000	0.555	0.672	0.901	0.790	0.919	0.975	1.109	0.648	0.642	0.000	0.616	0.758	0.707	1.177	0.862
Rhizosphere	2009	5	14	4	2	542.02	11.48	22.07	0.988	1.092	2.232	0.000	0.000	0.000	0.717	0.000	0.000	0.000	0.000	0.000	1.268	0.000	0.000	0.996	0.783	0.000	0.586	0.000
Rhizosphere	2009	5	14	5	2	689.36	12.36	26.87	1.775	0.000	2.580	0.000	0.000	0.633	0.681	0.000	0.000	0.000	0.000	0.000	0.000	1.469	0.000	0.864	0.759	0.000	0.637	0.000
Rhizosphere	2009	6	15	1	1	399.94	12.66	51.62	0.000	0.588	0.000	0.000	0.000	0.438	0.650	0.792	0.730	0.951	0.841	0.991	0.438	0.535	0.000	0.558	1.273	1.370	1.379	0.946
Rhizosphere	2009	6	15	2	1	326.26	12.24	54.33	0.557	0.650	0.000	0.000	0.000	0.515	0.965	0.910	0.834	0.800	0.783	0.758	0.632	0.711	0.000	0.707	0.754	0.704	1.362	1.078
Rhizosphere	2009	6	15	3	1	563.07	13.96	53.60	0.408	0.454	0.000	0.000	0.000	0.451	0.761	0.907	0.746	0.898	0.867	0.866	0.738	0.791	0.000	0.744	1.118	1.188	1.280	0.955
Rhizosphere	2009	6	15	4	1	536.76	12.68	49.36	0.497	0.555	0.000	0.000	0.000	0.268	0.615	0.841	0.769	0.825	0.776	0.802	0.000	0.763	0.000	0.618	1.149	1.078	1.102	0.779
Rhizosphere	2009	6	15	5	1	484.13	12.28	53.35	0.000	0.481	0.000	0.000	0.000	0.234	0.580	0.819	0.518	0.744	0.722	0.681	0.511	0.639	0.000	0.597	1.601	1.750	1.278	0.876
Rhizosphere	2009	6	16	1	2	689.36	11.80	49.50	0.000	0.443	0.000	0.000	0.000	0.309	0.627	0.690	0.546	0.724	0.805	0.640	0.507	0.709	0.000	0.797	2.009	1.770	1.225	0.947
Rhizosphere	2009	6	16	2	2	573.59	12.90	44.43	0.554	0.615	0.000	0.000	0.000	0.626	0.880	0.837	0.880	0.889	0.850	0.918	0.509	0.538	0.000	0.000	1.775	2.088	1.683	1.132
Rhizosphere	2009	6	16	3	2	478.87	13.14	52.90	0.000	0.471	0.000	0.000	0.000	0.388	0.543	0.572	0.524	0.613	0.907	0.569	0.456	0.000	0.000	1.412	2.427	2.479	0.000	1.017
Rhizosphere	2009	6	16	4	2	457.82	13.60	47.00	0.391	0.441	0.000	0.000	0.000	0.464	0.648	0.668	0.585	0.594	0.655	0.595	0.692	1.133	0.000	0.000	2.215	2.318	0.000	1.012
Rhizosphere	2009	6	16	5	2	447.30	13.94	24.13	0.464	0.485	0.000	0.000	0.000	0.387	0.639	0.676	0.630	0.751	0.764	0.730	0.488	0.675	0.000	0.868	2.356	2.368	0.000	1.129
Rhizosphere	2009	6	17	1	1	689.36	13.94	30.12	0.406	0.480	0.000	0.000	0.000	2.180	0.000	0.732	0.586	0.604	0.503	0.777	0.000	0.534	0.000	0.500	0.856	0.793	1.131	0.802
Rhizosphere	2009	6	17	2	1	389.41	14.16	26.50	0.542	0.641	0.000	0.000	0.000	0.483	0.779	0.861	0.804	0.817	0.851	0.952	0.670	0.555	0.000	0.000	1.602	1.711	1.290	1.009
Rhizosphere	2009	6	17	3	1	515.71	12.80	43.15	0.457	0.499	0.000	0.000	0.000	0.587	0.804	0.808	0.582	0.771	0.660	0.815	0.549	0.625	0.000	0.615	1.073	1.088	1.169	0.910
Rhizosphere	2009	6	17	4	1	678.84	12.74	39.25	0.522	0.525	0.000	0.000	0.000	0.656	0.888	0.884	0.699	0.954	0.866	0.916	0.661	0.662	0.000	0.687	0.955	0.824	1.186	0.936
Rhizosphere	2009	6	17	5	1	484.13	13.46	29.90	0.469	0.506	0.000	0.000	0.000	0.585	0.779	0.952	0.837	0.892	0.697	0.746	0.551	0.665	0.000	0.604	0.984	0.934	1.184	0.952
Rhizosphere	2009	6	18	1	2	463.08	13.96	36.98	0.000	0.597	0.000	0.000	0.000	0.479	0.533	0.638	0.613	0.702	0.691	0.738	0.526	0.581	0.000	0.562	1.864	2.153	1.178	0.792
Rhizosphere	2009	6	18	2	2	720.94	12.16	40.40	0.503	0.604	0.503	0.421	0.000	0.425	0.662	0.824	0.770	0.885	0.762	0.894	0.000	0.634	0.000	0.601	1.578	1.570	1.647	1.151
Rhizosphere	2009	6	18	3	2	663.05	11.52	51.55	0.482	0.617	0.000	0.000	0.000	0.522	0.673	0.815	0.778	0.890	0.777	0.905	0.506	0.682	0.000	0.659	1.576	1.574	1.638	1.141
Rhizosphere	2009	6	18	4	2	484.13	12.46	46.51	0.401	0.500	0.000	0.000	0.000	0.407	0.595	0.711	0.545	0.695	0.583	0.656	0.000	0.643	0.000	0.862	2.325	2.309	1.398	0.957
Rhizosphere	2009	6	18	5	2	463.08	11.60	47.85	0.488	0.550	0.000	0.000	0.000	0.346	1.001	0.789	0.708	0.794	0.680	0.821	0.507	0.708	0.000	0.648	1.719	1.919	1.277	0.940

88.43	90.13	91.01	94.18	103.78	104.79	106.53	108.73	109.93	120.76	121.91	124.15	125.19	127.49	130.96	134.07	137.62	138.78	140.42	142.49	144.41	146.07	148.11	151.74	157.52	160.34	163.24	169.00	170.92	172.33	181.44	193.17	195.82
1.218	0.532	0.625	0.454	0.000	0.555	0.295	0.000	0.000	0.000	0.600	0.000	0.860	1.161	0.764	0.623	1.225	1.466	1.108	0.946	1.071	1.467	1.433	0.964	0.653	0.877	0.844	0.870	0.589	0.741	0.000	0.519	0.852
0.939	1.303	0.000	0.000	0.000	0.520	0.000	0.000	0.000	0.729	1.013	1.477	0.849	0.000	0.000	0.000	1.031	1.776	1.766	0.000	0.000	0.000	0.924	0.000	0.000	0.684	0.000	0.000	0.000	0.000	0.000	0.851	0.767
1.752	0.581	0.447	0.394	0.000	0.737	0.378	0.000	0.660	0.000	0.490	0.639	0.911	1.171	0.742	0.633	1.031	1.131	1.018	0.839	0.000	1.479	1.475	1.119	0.709	0.000	0.754	0.714	0.453	0.520	0.000	0.368	0.872
1.034	0.589	0.625	0.506	0.000	0.363	0.000	0.000	0.000	0.333	0.633	0.000	0.912	1.287	0.876	0.712	1.266	1.581	1.213	1.163	1.096	1.649	1.631	1.081	0.754	0.912	0.866	0.825	0.663	0.678	0.399	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.025	0.737	0.512	0.434	0.000	0.436	0.000	0.000	0.000	0.565	0.925	0.949	1.092	1.596	1.099	0.852	1.279	1.249	1.161	0.949	1.097	1.469	1.655	1.578	0.882	1.016	0.814	0.869	0.647	0.694	0.488	0.408	0.730
1.481	0.000	0.327	0.338	0.364	1.028	0.308	0.000	0.000	0.313	0.572	0.000	0.966	1.402	1.029	0.564	0.952	1.054	0.922	0.776	0.933	1.339	1.502	1.521	0.901	1.381	0.925	0.668	0.521	0.662	0.543	0.000	0.793
0.711	0.644	0.522	0.474	0.000	0.491	0.000	0.000	0.000	0.454	0.858	0.851	1.181	1.541	0.726	0.720	1.169	1.138	1.137	0.783	0.962	1.464	1.517	1.720	0.856	1.427	1.064	0.738	0.719	0.586	0.412	0.402	0.000
1.385	0.000	0.397	0.289	0.000	0.517	0.000	0.000	0.000	0.324	0.725	0.769	1.156	1.716	1.462	0.586	1.016	0.939	0.941	0.000	0.736	1.347	1.335	1.076	0.749	1.407	1.029	0.652	0.542	0.551	0.538	0.431	0.763
1.320	0.801	0.000	0.323	0.000	0.615	0.000	0.000	0.000	0.000	0.770	0.777	1.119	1.758	1.478	0.608	1.012	0.932	0.978	0.000	0.861	1.297	1.400	1.700	0.723	1.289	1.089	0.761	0.626	0.696	0.788	0.000	0.532
1.057	0.471	0.533	0.307	0.000	0.447	0.428	0.372	0.401	0.346	0.549	0.000	0.895	1.487	0.944	0.674	1.153	1.509	1.026	1.101	0.940	1.803	1.717	1.173	0.796	1.208	0.993	0.869	0.642	0.672	0.614	0.366	0.000
0.744	0.584	0.694	0.506	0.000	0.000	0.000	0.000	0.000	0.000	0.659	0.680	0.916	1.441	0.970	0.753	1.191	0.000	0.992	0.911	0.000	1.600	1.468	1.167	0.453	0.659	0.506	0.566	0.000	0.000	0.000	0.000	0.513
0.931	0.654	0.969	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.858	1.140	1.778	0.000	1.152	0.000	0.734	0.000	1.656	0.000	2.024	2.093	0.574	0.000	1.207	1.061	0.729	0.000
0.000	0.327	0.000	0.343	0.699	0.490	0.000	0.000	0.000	0.000	0.000	0.404	0.000	0.000	0.000	0.000	0.955	1.388	0.000	0.869	0.881	0.978	1.401	0.000	1.918	1.718	1.158	0.865	0.000	0.943	0.943	0.406	0.000
1.939	0.000	0.627	0.448	0.000	0.748	0.000	0.000	0.000	0.000	0.549	0.000	0.833	1.442	0.804	0.555	1.074	1.388	0.000	0.000	1.009	1.846	1.554	0.859	0.485	0.585	0.448	0.492	0.000	0.000	0.000	0.000	0.000
1.141	0.623	0.546	0.000	0.279	0.685	0.283	0.000	0.000	0.000	0.852	0.800	1.195	1.640	1.296	0.668	1.071	1.034	0.973	0.000	0.927	1.335	1.501	1.838	0.815	1.116	0.907	0.830	0.000	0.666	0.655	0.520	0.799
1.017	0.690	0.506	0.427	0.000	0.627	0.000	0.000	0.000	0.000	0.000	0.909	1.057	1.667	1.111	0.744	1.293	1.550	1.308	1.017	1.137	1.658	1.757	1.500	0.863	1.128	0.939	0.852	0.588	0.650	0.976	0.514	0.682
2.682	0.000	0.000	0.000	0.000	1.063	0.000	0.000	0.000	0.000	0.483	0.627	0.744	1.297	0.690	0.000	0.887	1.177	0.862	0.645	0.814	1.448	1.605	0.874	0.956	0.685	0.447	0.535	0.000	0.000	0.516	0.000	0.616
1.183	0.000	0.000	0.000	0.000	0.000	0.000	0.533	0.000	0.450	0.717	0.801	1.081	1.787	1.177	0.622	1.041	1.019	0.000	0.000	0.794	1.600	1.622	1.257	1.031	0.000	0.967	0.000	0.591	0.000	0.688	0.000	0.707
0.873	0.771	0.548	0.428	0.000	0.299	0.275	0.000	0.000	0.000	0.699	0.722	1.040	1.142	0.751	0.396	0.959	0.959	0.971	0.684	0.943	1.365	1.398	1.741	0.714	0.000	0.877	0.878	0.672	0.762	1.047	0.318	0.635
0.000	0.446	0.000	0.727	0.280	0.000	0.000	0.000	0.000	0.000	0.257	0.000	0.282	0.000	0.422	0.000	1.087	1.212	0.000	0.876	0.000	0.000	0.000	1.395	1.507	1.641	1.351	0.950	1.280	1.448	0.000	0.574	0.409
1.876	0.000	0.340	0.263	0.000	0.657	0.363	0.308	0.321	0.000	0.395	0.000	0.733	1.134	0.421	0.674	0.945	1.027	0.808	0.826	0.836	1.509	1.403	0.898	0.760	0.889	0.685	1.005	0.685	0.778	0.570	0.495	0.898
0.896	0.433	0.477	0.345	0.000	0.383	0.310	0.000	0.000	0.340	0.575	0.000	0.815	1.223	0.678	0.831	1.246	1.452	1.058	0.925	1.156	1.624	1.540	0.938	0.696	0.000	0.675	1.096	0.737	0.797	0.384	0.463	0.725
1.189	0.872	0.556	0.000	0.336	0.496	0.000	0.000	0.000	0.000	0.793	0.747	1.071	1.579	1.200	0.560	1.112	0.000	1.046	0.000	0.965	1.238	1.408	1.769	0.757	1.345	0.929	0.597	0.000	0.500	0.459	0.342	0.709
1.881	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.828	0.926	0.000	0.000	1.162	0.000	0.000	1.348	0.000	0.000	0.796	0.000	0.787	0.529	1.282	0.000	0.000	0.000	0.000	0.877	0.918	0.470	0.000	0.000
1.387	0.000	0.328	0.320	0.000	0.696	0.543	0.527	0.570	0.373	0.633	0.712	0.946	1.503	0.476	0.757	1.073	1.307	0.925	0.847	0.985	1.611	1.697	1.090	0.936	1.114	0.822	0.904	0.493	0.625	0.368	0.306	0.698
1.045	0.703	0.604	0.500	0.000	0.487	0.000	0.000	0.000	0.571	0.879	0.863	0.987	1.383	0.842	0.671	1.269	1.573	1.279	1.198	1.166	1.726	1.610	1.228	0.999	1.078	0.814	0.832	0.605	0.693	0.649	0.397	0.752
1.193	0.563	0.510	0.349	0.000	0.473	0.485	0.000	0.363	0.583	0.868	0.000	1.011	1.425	0.836	0.000	1.410	1.822	1.337	1.329	1.235	1.569	1.623	1.145	0.995	1.216	0.994	1.114	0.679	0.920	0.535	0.000	0.000
1.824	0.000	0.553	0.308	0.000	0.823	0.000	0.000	0.000	0.534	0.729	0.887	0.967	1.582	0.978	0.729	1.239	1.441	1.120	1.025	0.000	1.502	1.846	1.527	1.080	1.410	1.274	0.942	0.000	0.830	0.372	0.455	0.663
1.213	0.611	0.479	0.309	0.000	0.543	0.351	0.000	0.000	0.456	0.747	0.817	1.014	1.318	0.791	0.565	1.150	1.541	1.163	1.221	1.048	1.351	1.619	1.299	0.803	1.036	0.920	0.905	0.622	0.769	0.451	0.439	0.828
0.878	0.717	0.664	0.457	0.000	0.388	0.000	0.000	0.000	0.668	1.156	1.094	1.248	1.772	1.193	0.731	1.456	1.517	1.413	1.021	1.195	1.759	1.657	1.531	1.077	1.325	1.002	1.000	0.766	0.888	0.990	0.622	0.000
1.418	0.637	0.557	0.445	0.000	0.600	0.000	0.000	0.000	0.549	0.894	1.026	1.105	1.465	0.944	0.745	1.419	1.497	1.327	1.006	1.036	1.595	1.534	1.268	0.975	1.408	1.135	1.008	0.000	0.965	0.388	0.459	0.894
1.077	0.972	0.690	0.557	0.000	0.460	0.000	0.000	0.000	0.000	1.099	1.029	1.374	1.847	1.246	0.000	1.350	1.411	1.193	1.073	1.168	1.480	1.780	1.699	1.025	1.307	0.925	0.989	0.755	0.778	1.065	0.484	0.816
1.222	0.661	0.474	0.328	0.000	0.508	0.232	0.000	0.000	0.597	1.110	0.996	1.202	1.655	1.049	0.809	1.481	1.454	1.339	0.978	1.152	1.638	1.750	1.725	1.192	1.579	1.244	1.267	0.951	1.124	0.645	0.469	0.823
1.183	0.619	0.590	0.520	0.000	0.440	0.000	0.000	0.000	0.675	0.927	0.982	1.025	1.488	0.974	0.749	1.306	1.275	1.139	0.893	1.079	1.775	1.682	1.436	1.151	1.609	1.201	0.994	0.776	0.851	0.616	0.511	0.819
1.209	1.139	0.559	0.341	0.000	0.378	0.391	0.000	0.329	0.000	0.912	0.854	1.150	1.641	1.037	0.715	1.398	1.307	1.266	0.944	1.095	1.487	1.929	1.998	1.053	1.575	1.252	1.157	0.812	0.922	0.789	0.505	0.883
1.331	0.842	0.737	0.563	0.000	0.542	0.000	0.000	0.000	0.000	1.084	0.960	1.043	1.618	0.965	0.741	1.425	1.535	1.287	1.075	1.252	1.740	1.587	1.295	0.819	0.955	0.823	1.009	0.771	0.798	1.024	0.571	0.872
1.392	1.027	0.596	0.393	0.000	0.473	0.000	0.000	0.000	0.000	0.806	0.745	0.999	1.918	1.251	0.651	0.000	1.167	1.002	0.952	1.071	1.375	1.920	1.908	0.993	1.257	1.005	0.983	0.886	0.767	0.916	0.000	0.753
0.000	1.234	1.056	0.761	0.000	0.282	0.000	0.000	0.000	0.000	1.007	0.843	0.867	1.564	0.952	0.000	1.386	1.491	1.302	1.207	1.207	1.368	1.442	1.206	0.614	0.758	0.719	0.926	0.860	0.743	0.825	0.518	0.904
0.960	1.224	0.910	0.770	0.000	0.407	0.249	0.000	0.000	0.000	0.990	0.853	0.969	1.554	1.035	0.000	1.209	1.337	1.204	1.012	1.155	1.298	1.404	1.288	0.628	0.841	0.733	0.861	0.736	0.676	0.830	0.462	0.763
1.473	0.701	0.563	0.460	0.000	0.524	0.390	0.000	0.000	0.346	0.698	0.799	0.993	1.426	0.813	0.814	1.308	1.552	1.142	1.104	1.047	1.547	1.637	1.123	0.949	0.908	0.694	1.107	0.673	0.812	0.657	0.454	0.829
2.454	0.000	0.398	0.000	0.000	0.978	0.000	0.000	0.644	0.000	0.453	0.616	0.858	1.433	0.744	0.730	1.075	1.394	0.911	0.915	0.775	1.736	1.713	0.957	1.115	0.950	0.621	0.889	0.675	0.786	0.000	0.357	0.991
1.842	0.000	0.000	0.338	0.000	0.920	0.387	0.000	0.278	0.465	0.678	0.800	0.994	1.308	0.770	0.932	1.307	1.543	1.188	1.120	0.996	1.757	1.705	1.214	1.038	1.138	0.864	1.040	0.759	0.876	0.366	0.429	0.000
2.211	0.000	0.432	0.000	0.000	0.830	0.616	0.000	0.395	0.395	0.581	0.000	0.798	1.345	0.838	0.642	1.070	1.657	1.010	1.115	0.854	1.611	1.488	0.818	0.828	0.891	0.519	0.927	0.383	0.631	0.372	0.530	1.037
1.317	0.634	0.577	0.417	0.000	0.391	0.000	0.000	0.000	0.457	0.926	0.891	1.080	1.627	0.957	0.877	1.500	1.782	1.357	1.355	1.121	1.845	1.716	1.211	0.834	1.013	0.819	1.125	0.716	0.935	0.572	0.599	0.952
1.502	0.566	0.480	0.345	0.000	0.561	0.000	0.000	0.000	0.413	0.736	0.857	0.955	1.583	0.885	0.810	1.281	1.799	1.222	1.301	1.043	1.634	1.687	1.156	0.899	1.199	0.855	0.980	0.660	0.804	0.399	0.578	0.855
1.099	0.640	0.531	0.414	0.000	0.463	0.255	0.000	0.000	0.483	0.803	0.846	0.909	1.280	0.741	0.787	1.273	1.768	1.286	1.349	1.219	1.639	1.629	1.213	0.830	0.947	0.842	1.146	0.699	0.960	0.685	0.506	0.000
1.047	0.567	0.000	0.375	0.000	0.380	0.506	0.000	0.310	0.425	0.772	0.871	0.957	1.436	0.785	0.752	1.314	1.915	1.391	1.516	1.191	1.572	1.656	1.126	0.901	0.999	0.886	1.097	0.600	0.944	0.524	0.519	0.849
1.625	0.000	0.427	0.327	0.000	0.675	0.424	0.000	0.317	0.419	0.770	0.816	0.988	1.408	0.825	0.769	1.266	1.524	1.216	1.098	1.083	1.592	1.650	1.213	0.977	1.140	0.812	1.069	0.700	0.855	0.561	0.521	0.816
1.183	0.585	0.468	0.408	0.000	0.516	0.408	0.000	0.327	0.527	0.848	0.909	0.971	1.461	0.874	0.770	1.229	1.755	1.318	1.415	1.093	1.579	1.602	1.135	0.718	1.003	0.894	0.981	0.651	0.877	0.495	0.639	0.000
0.334	0.000	0.285	0.000	0.000	0.610	0.519	0.000	0.000	0.000	0.000	0.000	0.279	0.336	0.000	0.000	1.018	1.126	0.986	0.702	0.000	0.714	0.000	1.155	0.000	1.474	1.535	0.732	1.184	0.881	0.000	0.000	0.392
0.979	0.611	0.494	0.505	0.000	0.375	0.331	0.000	0.000	0.470	0.683	0.000	0.000	1.051	0.543	0.810	1.222	1.325	1.101	0.955	1.255	1.725	1.577	1.276	0.864	1.118	0.956	0.935	0.760	0.871	0.331	0.326	0.622
1.184	0.714	0.603	0.643	0.335	0.426	0.324	0.000	0.000	0.421	0.000	0.000	0.000	1.166	0.721	0.898	1.289	1.253	1.251	0.000	1.282	1.615	1.658	1.612	0.981	1.417	1.097	1.081	0.916	1.038	0.000	0.384	0.681
0.789	0.639	0.560	0.602	0.463	0.391	0.450	0.000	0.000	0.361	0.569	0.000	0.755	1.208	0.709	0.850	1.276	1.212	1.209	0.000	1.176	1.461	1.599	1.654	0.000	1.331	1.055	1.034	0.847	1.024	0.000	0.326	0.568
0.000	0.000	0.352	0.000	0.344	0.369	0.000	0.000	0.000	0.230	0.368	0.000	0.000	0.279	0.000	0.000	0.981	1.251	0.000	0.818	0.000	0.821	1.087	0.000	0.000	1.669	1.702	0.000	1.205	0.000	0.000	0.351	0.273
1.289	0.890	0.691	0.586	0.000	0.436	0.000	0.000	0.000	0.376	0.861	0.804	1.172	1.506	0.888	0.692	1.288	1.211	1.127	0.000	1.159	1.568	1.777	1.930	1.074	1.606	1.035	0.545	0.000	0.000	0.633	0.413	0.665
0.597	0.000	0.000	0.000	0.000	0.856	0.000	1.809	0.000	0.000	0.858	0.000	0.000	0.000	2.253	0.634	0.000	1.791	1.351	0.000	0.462	0.000	0.794	0.000	0.000	0.000	0.000	0.000	0.313	0.668	0.000	0.000	0.000
0.000	0.468	0.870	0.000	0.000	0.456	0.403	0.909	0.000	0.753	0.000	0.000	1.350	1.065	0.000	0.000	1.182	2.024	0.000	0.585	0.000	0.000	0.000	0.000	0.000	0.926	0.000	0.000	0.000	0.000	0.000	0.000	1.134
1.048	1.178	0.000	0.000	0.233	0.328	0.000	0.000	0.000	0.000	0.767	0.704	1.123	1.960	1.374	0.647	1.212	0.000	1.024	0.000	1.124	1.407	1.736	2.073	1.088	1.703	1.343	1.034	0.674	0.867	0.878	0.339	0.568
0.989	0.717	0.593	0.538	0.000	0.307	0.000	0.000	0.290	0.428	0.721	0.000	0.886	1.311	0.718	0.809	1.337	1.331	1.190	0.926	1.145	1.748	1.867	1.632	0.831	1.079	0.910	0.921	0.649	0.740	0.504	0.448	0.000
0.873	0.849	0.818	0.810	0.000	0.000	0.000	0.000	0.000	0.000	0.764	0.750	0.920	1.445	0.790	0.763	1.235	1.486	1.135	1.095	1.232	1.635	1.626	1.280	0.658	0.999	0.742	1.331	0.758	1.046	0.780	0.328	0.623
1.139	0.595	0.471	0.423	0.417	0.382	0.317	0.000	0.000	0.273	0.626	0.628	0.000	1.513	0.925	0.765	1.287	1.166	1.151	0.000	1.067	1.527	1.725	1.599	1.093	1.376	0.898	0.953	0.735	0.798	0.472	0.394	0.692
1.397	1.011	0.556	0.470	0.317	0.568	0.000	0.000	0.000	0.000	0.743	0.693	1.022	1.874	1.267	0.561	1.076	0.000	1.015	0.724	0.959	1.569	1.711	1.209	0.699	1.020	0.833	0.629	0.000	0.486	0.591	0.000	0.617
0.950	1.088	0.632	0.575	0.238	0.288	0.000	0.000	0.000	0.000	0.762	0.762	1.052	1.671	1.224	0.525	1.048	1.021	1.029	0.828	1.030	1.452	1.521	1.669	0.720	1.068	0.799	0.907	0.625	0.753	0.897	0.318	0.601
1.874	0.000	0.463	0.362	0.000	0.674	0.000	0.000	0.000	0.000	0.547	0.640	0.797	1.232	0.711	0.528	1.031	1.400	1.005	0.916	0.961	1.743	1.590	1.114	0.740	0.945	0.750	0.873	0.648	0.000	0.717	0.516	0.723
1.186	0.934	0.443	0.000	0.000	0.507	0.000	0.000	0.000	0.000	0.765	0.697	0.881	1.305	0.789	0.665	1.112	1.179	1.057	0.722	1.076	1.529	1.638	1.506	0.749	1.035	0.790	1.009	0.608	0.909	0.952	0.000	0.459
0.856	1.032	0.622	0.396	0.000	0.315	0.000	0.000	0.000	0.000	1.046	0.889	1.190	1.803	1.203	0.665	1.258	1.284	1.239	0.858	1.156	1.612	1.850	1.806	0.818	1.136	0.905	0.747	0.618	0.558	1.073	0.407	0.722
1.089	0.875	0.604	0.429	0.000	0.619	0.000	0.000	0.000	0.000	0.963	0.970	1.271	1.931	1.402	0.719	1.205	1.172	1.120	0.840	1.032	1.551	1.807	1.804	1.071	1.170	0.840	0.612	0.689	0.000	0.864	0.406	0.917
0.000	0.289	0.000	0.386	0.555	0.318	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.927	0.000	2.017	0.858	1.283	0.000	0.561	0.000	0.974	1.459	1.877	1.627	0.000	1.023	0.903	0.495	0.734	0.305
0.000	0.614	0.351	0.530	0.408	0.463	0.000	0.000	0.000	0.000	0.000	0.000	0.351	0.000	0.000	0.699	0.000	1.578	0.922	0.954	0.000	0.600	0.843	1.119	0.000	1.680	1.558	0.543	0.815	0.561	0.412	0.000	0.000
1.258	0.698	0.627	0.522	0.000	0.534	0.342	0.000	0.251	0.000	0.633	0.696	0.739	1.263	0.815	0.748	1.221	1.402	1.073	1.044	1.111	1.684	1.595	1.183	0.760	0.885	0.000	0.900	0.835	0.718	0.641	0.498	0.866
1.340	0.675	0.618	0.521	0.000	0.517	0.000	0.000	0.000	0.461	0.765	0.804	0.860	1.325	0.770	0.817	1.270	1.532	1.260	1.147	1.346	1.608	1.553	1.099	0.770	0.926	0.000	1.097	0.821	0.894	0.300	0.627	0.969
1.131	0.901	0.724	0.639	0.000	0.338	0.305	0.000	0.238	0.000	0.688	0.809	0.000	1.319	0.777	0.922	1.299	1.448	1.196	1.134	1.349	1.561	1.634	1.325	0.764	0.891	0.000	1.080	0.802	0.939	0.425	0.548	0.914
0.919	0.803	0.781	0.693	0.000	0.000	0.306	0.000	0.227	0.540	0.713	0.821	0.824	1.334	0.810	0.894	1.357	1.545	1.225	1.195	1.362	1.837	1.704	1.300	0.770	0.950	0.000	1.014	0.814	0.813	0.432	0.579	0.987
1.059	0.756	0.715	0.582	0.000	0.377	0.000	0.000	0.000	0.000	0.673	0.746	0.730	1.228	0.728	0.804	0.000	1.391	1.042	1.070	1.234	1.694	1.629	1.358	0.757	0.917	0.745	0.950	0.720	0.713	0.469	0.541	0.000
1.085	0.938	0.899	0.586	0.000	0.340	0.000	0.000	0.192	0.493	0.864	0.819	0.934	1.366	0.772	0.775	1.212	1.242	1.052	0.918	1.121	1.710	1.573	1.363	0.758	0.916	0.705	0.780	0.660	0.000	0.722	0.514	0.000
1.461	0.807	0.644	0.435	0.000	0.547	0.331	0.000	0.271	0.000	0.690	0.803	0.852	1.359	0.745	0.681	1.178	1.282	1.065	0.950	1.142	1.572	1.608	1.229	0.598	0.730	0.638	0.771	0.570	0.581	0.529	0.516	0.766
1.074	0.838	0.787	0.411	0.000	0.296	0.200	0.000	0.000	0.368	0.800	0.705	0.924	1.116	0.541	0.640	1.155	1.147	0.981	0.785	0.922	1.677	1.644	1.442	0.672	0.705	0.619	0.734	0.545	0.443	0.681	0.661	0.000
0.968	1.312	0.837	0.539	0.000	0.279	0.000	0.000	0.000	0.000	0.814	0.766	0.919	1.665	1.048	0.775	1.236	1.221	1.063	0.964	1.057	1.490	1.739	1.873	0.743	0.881	0.650	0.804	0.696	0.633	0.942	0.459	0.636
1.170	1.089	0.945	0.582	0.000	0.436	0.000	0.000	0.000	0.427	0.902	0.801	1.058	1.386	0.763	0.645	1.135	1.181	1.022	0.910	1.095	1.606	1.752	1.564	0.729	0.850	0.678	0.928	0.660	0.679	0.842	0.000	0.630
0.979	0.602	0.534	0.000	0.000	0.000	0.480	0.000	0.000	0.000	0.579	0.611	0.737	1.180	0.581	0.683	1.216	1.459	1.104	1.097	1.039	1.507	1.590	1.049	0.620	0.752	0.761	0.959	0.661	0.750	0.000	0.000	0.618
1.266	0.891	0.602	0.427	0.000	0.520	0.000	0.000	0.000	0.304	0.716	0.733	0.936	1.228	0.805	0.700	1.171	1.080	1.004	0.785	1.009	1.572	1.678	1.539	0.612	0.812	0.648	1.017	0.685	0.787	0.471	0.385	0.654
1.044	0.727	0.686	0.501	0.000	0.494	0.465	0.000	0.331	0.453	0.699	0.728	0.796	1.251	0.706	0.000	1.373	1.581	1.182	1.193	1.130	1.519	1.576	1.134	0.692	0.848	0.000	1.078	0.819	0.893	0.489	0.512	0.794
1.038	0.705	0.676	0.549	0.000	0.306	0.350	0.000	0.225	0.000	0.773	0.773	0.882	1.306	0.756	0.000	1.388	1.619	1.206	1.139	1.234	1.490	1.521	1.072	0.813	0.885	0.000	1.109	0.853	0.931	0.414	0.536	0.884
1.100	0.644	0.594	0.437	0.000	0.408	0.000	0.000	0.000	0.389	0.748	0.760	0.960	1.255	0.792	0.986	1.494	1.564	1.303	1.176	1.208	1.502	1.677	1.087	0.998	0.897	0.875	1.155	0.821	0.971	0.341	0.567	0.812
0.866	0.928	0.601	0.427	0.000	0.270	0.000	0.000	0.000	0.000	0.793	0.755	0.950	1.381	0.896	0.547	0.977	1.049	0.916	0.716	0.994	1.379	1.655	1.722	0.677	0.700	0.596	0.710	0.646	0.000	0.740	0.574	0.566
1.535	0.000	0.702	0.414	0.000	0.577	0.000	0.207	0.000	0.493	0.861	0.879	1.070	1.531	0.979	0.816	1.362	1.476	1.190	1.026	1.212	1.469	1.781	1.405	0.758	0.882	0.794	1.029	0.811	0.838	0.849	0.541	0.976
1.539	0.931	0.706	0.457	0.000	0.570	0.261	0.000	0.000	0.448	0.819	0.845	1.012	1.526	0.975	0.765	1.335	1.446	1.165	1.006	1.202	1.474	1.731	1.403	0.711	0.851	0.791	1.013	0.816	0.821	0.818	0.510	0.973
0.977	0.838	0.830	0.545	0.000	0.258	0.270	0.000	0.000	0.444	0.701	0.725	0.822	1.185	0.683	0.774	1.199	1.300	1.026	0.952	1.088	1.421	1.601	1.232	0.689	0.777	0.733	0.899	0.705	0.688	0.626	0.000	0.812
1.105	0.956	0.758	0.535	0.000	0.413	0.306	0.000	0.000	0.000	0.808	0.794	0.982	1.458	0.894	0.753	1.287	1.442	1.147	1.021	1.213	1.451	1.803	1.590	0.684	0.847	0.831	1.112	0.826	0.931	0.659	0.544	0.773

197.81	198.75	203.06	204.60	206.61	207.61	208.31	213.99	215.95	217.32	219.70	223.06	225.02	232.82	275.75	286.91	291.02	394.09	398.20	401.56	418.49	422.18	431.29	434.26	435.80	438.20	447.87	464.19	483.84	486.76	491.96	496.91
0.963	0.000	0.627	0.000	0.887	1.043	1.001	1.074	0.731	0.735	0.380	0.546	0.693	0.691	0.411	0.936	0.742	0.000	0.986	0.815	0.000	0.000	0.000	1.629	1.929	1.697	1.123	0.000	2.003	2.206	0.000	1.509
0.000	0.000	1.094	0.000	0.532	0.358	0.516	0.000	0.802	0.000	0.000	0.000	0.000	0.000	0.323	0.000	0.374	0.000	0.000	1.931	0.725	0.000	1.294	0.000	0.000	0.000	1.661	0.000	0.000	0.000	0.000	0.000
1.170	1.289	0.700	0.000	0.899	0.961	1.174	1.604	1.090	1.510	0.000	0.439	0.495	0.922	0.493	0.000	0.570	0.436	1.008	0.881	0.498	0.000	1.268	0.000	1.684	1.424	0.000	0.000	1.681	1.650	0.000	1.177
0.920	0.000	0.586	0.000	0.733	0.762	0.690	1.223	0.836	0.856	0.000	0.461	0.615	0.718	0.399	0.910	0.667	0.000	1.119	0.998	0.616	0.000	0.000	0.000	1.991	0.000	1.105	0.000	2.106	2.442	0.000	1.390
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.868	0.866	1.006	0.000	0.811	1.043	0.593	0.718	0.299	0.394	0.451	0.505	0.642	0.836	0.712	0.682	0.800	0.563	0.545	0.000	0.000	1.663	0.000	1.612	1.169	0.000	1.825	2.355	0.000	0.000
0.999	1.024	0.592	0.000	0.757	0.789	0.944	1.538	1.094	1.372	0.771	0.457	0.364	0.769	0.777	0.644	0.610	0.556	1.035	0.918	0.541	0.000	1.216	0.000	1.640	0.000	0.877	0.000	1.670	2.052	0.000	1.130
0.000	0.000	0.761	0.000	0.849	0.852	0.795	1.226	0.825	0.884	0.000	0.472	0.354	0.574	0.710	0.682	0.000	0.363	0.996	0.782	0.551	0.000	0.000	0.000	1.786	0.000	1.023	0.000	2.019	2.576	0.000	1.366
0.928	0.832	0.603	0.000	0.809	0.836	0.852	1.308	0.000	1.029	0.000	0.436	0.308	0.678	0.667	0.677	0.000	0.000	1.052	0.825	0.541	0.000	1.431	0.000	1.579	0.000	0.648	0.000	1.717	2.925	0.000	1.113
0.642	0.620	0.750	0.000	0.863	0.673	0.762	1.346	0.000	0.917	0.483	0.406	0.000	0.620	0.761	0.569	0.556	0.000	0.000	0.000	0.529	0.000	0.000	0.000	1.867	1.762	0.000	0.000	0.000	3.335	0.000	0.000
0.654	0.000	0.514	0.000	0.984	0.938	0.935	1.294	0.854	0.947	0.000	0.581	0.691	0.831	0.642	0.000	0.600	0.000	1.159	0.976	0.655	0.000	1.386	0.000	1.864	1.690	1.198	0.000	1.731	2.207	0.000	1.134
0.800	0.685	0.499	0.000	0.503	0.000	0.415	0.757	0.000	0.411	0.000	0.000	0.000	0.496	0.586	1.014	0.777	0.419	0.956	0.890	0.000	0.000	0.000	1.562	1.955	1.672	0.644	0.000	1.954	3.302	0.000	1.368
0.000	0.374	0.480	0.000	0.512	0.475	0.000	0.000	0.624	0.679	0.754	0.654	0.378	0.000	0.000	0.000	0.464	0.668	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.917	1.031	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.562	0.537	0.000	0.000	0.614	0.280	0.000	0.736	0.848	0.768	0.000	0.000	0.312	0.493	0.000	0.000	0.000	0.000	0.000	0.553	0.773	0.757	1.658	0.000	0.000	0.000	0.000	1.916
0.000	0.000	0.445	0.000	0.857	0.861	0.839	1.003	0.593	0.622	0.000	0.000	0.520	0.546	0.462	0.756	0.569	0.000	1.253	0.931	0.649	0.000	0.000	0.000	1.834	1.580	0.912	0.000	1.823	2.011	0.000	0.000
0.853	0.676	0.676	0.000	0.877	1.036	0.886	0.891	0.617	0.565	0.407	0.501	0.390	0.405	0.623	0.776	0.617	0.326	0.940	0.719	0.511	0.000	1.541	0.000	0.000	1.612	0.751	0.000	1.672	2.042	0.000	1.241
0.919	0.000	0.773	0.828	0.869	0.000	0.741	0.000	0.643	0.746	0.000	0.513	0.544	0.527	0.666	0.000	0.667	0.000	1.065	0.799	0.573	0.000	0.000	0.000	1.848	1.557	1.019	0.000	1.811	2.433	1.300	0.000
0.700	0.651	0.000	1.409	1.274	0.000	1.549	1.940	1.078	1.504	0.000	0.728	0.520	0.957	0.542	0.424	0.000	0.920	0.998	0.603	0.480	0.000	0.933	1.061	1.085	0.850	0.600	0.597	1.399	1.703	0.651	0.000
0.955	0.792	0.457	0.000	0.951	0.933	0.863	1.287	0.801	0.907	0.000	0.438	0.000	0.577	0.822	0.866	0.000	0.434	1.126	0.644	0.698	0.000	0.000	1.364	1.295	1.254	0.486	0.000	1.548	1.921	0.000	0.000
0.762	0.689	0.799	0.000	0.956	0.889	0.949	1.336	0.795	0.946	0.000	0.562	0.508	0.544	0.671	0.784	0.720	0.000	0.000	0.849	0.548	0.000	0.000	0.000	1.945	2.005	0.000	0.000	1.840	2.959	0.000	1.280
0.000	0.357	0.328	0.000	0.390	0.000	0.627	0.000	0.660	0.000	0.000	0.000	0.479	0.354	0.000	0.370	0.563	0.492	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.000	1.401	0.000	0.000	0.000	0.000	0.000
1.001	0.921	0.000	0.000	0.923	0.966	1.025	1.729	1.239	1.587	0.000	0.624	0.435	0.830	0.422	0.570	0.503	0.000	0.850	0.654	0.623	0.000	0.936	0.997	1.287	1.267	0.732	0.000	1.111	1.275	0.000	0.807
0.830	0.000	0.507	0.000	0.928	0.913	0.920	1.397	0.901	0.858	0.000	0.588	0.468	0.510	0.347	0.644	0.572	0.394	0.832	0.598	0.723	0.000	0.000	1.327	1.605	1.527	0.000	0.000	1.583	1.580	0.000	1.184
0.782	0.660	0.712	0.000	0.753	0.678	0.678	1.087	0.000	0.647	0.000	0.354	0.297	0.426	0.704	0.674	0.561	0.382	1.239	1.525	0.634	0.000	0.000	0.000	2.168	0.000	0.000	0.000	0.000	2.694	0.000	1.235
0.000	0.889	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.914	0.000	0.793	0.000	0.917	0.932	0.774	1.487	1.262	1.210	0.000	0.633	0.585	0.752	0.532	0.550	0.579	0.000	0.828	0.537	0.570	0.000	1.147	0.000	1.387	1.298	0.798	0.000	1.323	1.500	0.000	0.932
0.959	0.000	0.828	0.916	1.019	0.000	0.935	1.015	0.656	0.660	0.000	0.469	0.600	0.634	0.569	0.760	0.693	0.858	0.999	0.000	0.000	0.000	0.000	0.000	2.023	1.911	1.243	1.224	2.404	2.695	0.000	1.477
0.947	0.000	0.883	0.870	0.000	0.000	0.800	0.000	0.624	0.722	0.000	0.455	0.645	0.569	0.599	0.873	0.000	0.818	0.836	0.000	0.000	0.000	0.000	0.000	1.868	1.841	1.083	1.092	1.789	2.038	1.234	1.414
0.855	0.000	0.598	1.238	1.153	0.000	1.368	1.364	0.788	1.131	0.000	0.468	0.642	0.648	0.688	0.722	0.000	0.879	0.885	0.612	0.582	0.000	1.373	0.000	0.000	1.588	0.931	1.096	1.644	1.894	0.000	0.000
0.000	0.000	0.701	0.000	1.075	0.000	0.000	1.033	0.000	0.744	0.000	0.320	0.532	0.550	0.439	0.748	0.738	0.774	0.793	0.000	0.000	0.000	0.000	1.792	1.788	0.000	1.062	1.095	1.699	0.000	0.000	0.000
0.929	0.000	0.869	0.786	0.000	0.000	0.679	0.899	0.545	0.539	0.300	0.479	0.532	0.350	0.705	0.000	0.744	0.910	1.034	0.709	0.000	0.000	0.000	0.000	1.811	0.000	1.114	1.323	1.864	2.249	0.000	1.433
1.095	0.000	0.705	0.874	1.107	0.000	1.034	0.000	0.000	1.095	0.000	0.533	0.529	0.701	0.598	0.847	0.727	0.786	0.875	0.690	0.720	0.000	0.000	0.000	1.815	0.000	1.032	1.296	1.995	2.026	1.510	0.000
0.867	0.000	0.827	0.846	0.979	0.000	0.854	1.133	0.719	0.747	0.339	0.563	0.591	0.419	0.780	0.903	0.000	0.866	0.876	0.617	0.648	0.000	0.000	1.741	0.000	1.670	1.073	1.379	0.000	1.994	1.283	0.000
0.961	0.870	0.723	0.763	0.905	0.000	0.727	1.198	0.718	0.820	0.284	0.406	0.688	0.458	0.850	0.897	0.781	0.000	0.917	0.618	0.651	0.000	0.000	1.719	0.000	1.626	0.998	1.401	1.694	1.882	0.000	1.372
0.956	0.834	0.702	0.888	0.970	0.000	0.972	0.000	0.615	0.654	0.364	0.465	0.634	0.497	0.720	0.751	0.686	0.829	1.016	0.745	0.000	0.000	0.000	0.000	1.778	1.699	0.958	1.301	1.712	1.985	1.490	1.271
0.952	0.879	0.753	1.097	1.022	0.000	1.126	0.000	0.596	0.702	0.000	0.624	0.522	0.355	0.830	0.000	0.708	0.000	1.070	0.714	0.716	0.000	0.000	0.000	1.574	0.000	0.000	1.332	0.000	1.706	0.000	0.000
0.968	0.000	0.841	0.788	0.000	0.000	0.789	1.019	0.598	0.674	0.000	0.632	0.000	0.496	0.597	1.032	0.759	0.000	1.055	0.668	0.700	0.000	0.000	1.702	0.000	1.661	1.116	1.212	0.000	2.181	0.000	1.521
0.907	0.684	0.744	1.156	1.066	0.000	1.158	0.000	0.738	1.030	0.000	0.571	0.467	0.543	0.697	0.803	0.670	0.000	0.888	0.584	0.653	0.000	0.000	0.000	1.467	1.522	0.794	1.210	0.000	1.851	1.242	1.051
0.868	0.000	0.804	0.800	1.009	0.000	0.768	0.884	0.510	0.519	0.000	0.689	0.710	0.252	0.424	0.981	0.000	0.000	0.790	0.500	0.564	0.000	0.000	0.000	1.456	1.442	1.143	1.224	1.710	2.080	0.000	1.593
0.830	0.000	0.812	0.714	0.000	0.000	0.724	0.938	0.564	0.610	0.000	0.588	0.551	0.352	0.483	0.917	0.833	0.000	0.904	0.598	0.558	0.000	0.000	1.702	0.000	1.592	0.000	1.282	1.775	2.160	0.000	1.633
0.884	0.821	0.931	1.018	1.014	0.000	1.013	1.484	0.865	1.075	0.311	0.649	0.877	0.631	0.493	0.883	0.799	0.672	0.862	0.601	0.562	0.000	0.000	0.000	1.557	1.480	0.904	1.046	1.463	1.661	1.198	1.306
1.061	0.991	0.812	1.572	1.466	0.000	1.689	0.000	0.813	1.100	0.000	0.699	0.489	0.709	0.463	0.511	0.480	0.702	0.796	0.000	0.541	0.000	0.984	1.054	1.233	0.000	0.693	0.752	1.120	1.159	0.816	0.723
1.049	0.000	0.818	1.137	0.000	0.000	1.252	1.459	0.949	1.112	0.000	0.373	0.533	0.673	0.482	0.000	0.000	0.726	0.820	0.591	1.364	0.000	0.000	0.000	1.608	0.000	0.894	0.000	1.537	1.664	1.162	1.215
1.024	1.022	0.636	1.434	1.353	0.000	1.608	0.000	0.000	1.150	0.000	0.722	0.574	0.763	0.430	0.493	0.516	0.732	0.849	0.491	0.553	0.000	1.089	0.000	1.235	1.139	0.803	0.742	1.367	1.525	0.936	0.896
1.035	0.000	0.916	1.081	1.080	0.000	1.011	1.179	0.645	0.738	0.000	0.522	0.664	0.789	0.447	0.798	0.000	0.792	0.891	0.627	0.843	0.000	0.000	0.000	1.815	0.000	1.098	0.000	1.933	1.971	1.520	1.456
0.952	0.839	0.756	1.010	1.013	0.000	1.043	1.403	0.887	1.037	0.453	0.536	0.723	0.666	0.603	0.826	0.699	0.864	0.836	0.000	0.563	0.000	1.530	0.000	1.709	1.737	1.142	1.128	1.650	1.832	1.307	1.339
0.932	0.000	1.122	0.000	0.000	0.000	0.784	0.000	0.727	0.832	0.000	0.396	0.658	0.551	0.541	0.857	0.901	0.838	0.909	0.651	0.363	0.000	0.000	0.000	1.801	1.873	1.092	1.127	1.919	2.243	1.406	1.537
0.957	0.000	0.958	0.903	1.064	0.000	0.857	1.113	0.637	0.717	0.000	0.441	0.733	0.925	0.538	0.814	0.848	0.832	0.906	0.000	0.515	0.000	0.000	1.820	0.000	1.766	1.180	1.084	2.020	2.152	1.411	1.499
0.904	0.808	1.016	1.098	1.104	0.000	1.158	0.000	0.805	1.061	0.368	0.482	0.620	0.848	0.567	0.790	0.704	0.852	1.028	0.000	0.638	0.000	0.000	0.000	1.702	1.643	0.971	1.095	1.755	2.244	1.200	1.300
0.876	0.000	0.883	0.928	0.842	0.000	0.886	0.000	0.797	0.965	0.000	0.458	0.640	0.794	0.408	0.742	0.760	0.852	0.903	0.673	0.517	0.000	0.000	0.000	1.892	1.941	1.179	0.000	2.041	2.208	1.646	1.560
0.000	0.000	0.448	0.000	0.000	0.725	0.848	0.848	0.901	0.913	0.480	0.933	0.541	0.533	0.000	0.481	0.624	0.861	0.473	0.000	0.000	0.000	0.000	0.000	1.247	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.740	0.882	0.868	0.000	0.768	0.000	0.685	0.632	0.375	0.477	0.000	0.458	0.497	0.386	0.518	0.744	0.844	0.685	1.124	1.043	0.661	0.000	1.339	1.411	1.853	0.000	0.000	0.000	1.591	1.918	0.000	1.389
0.794	0.849	0.838	0.000	0.876	0.000	0.820	0.849	0.000	0.644	0.359	0.561	0.557	0.359	0.641	0.774	0.748	0.000	0.906	0.870	0.501	0.000	1.325	0.000	1.883	0.000	0.000	0.000	1.356	1.736	0.000	1.328
0.736	0.806	0.767	0.000	0.715	0.000	0.606	0.733	0.361	0.470	0.000	0.386	0.459	0.000	0.729	0.771	0.816	0.000	0.839	0.000	0.459	0.000	1.381	1.319	1.722	0.000	0.721	0.000	0.000	1.677	0.000	1.294
0.000	0.000	0.339	0.000	0.000	0.000	0.652	0.721	0.662	0.769	0.605	0.000	0.786	0.320	0.000	0.713	0.711	0.000	0.978	0.000	0.000	0.000	0.000	1.804	1.670	0.000	0.767	0.000	1.310	1.182	0.000	1.262
0.784	0.609	0.848	0.000	0.914	0.000	0.846	0.583	0.406	0.387	0.000	0.000	0.369	0.312	0.937	0.710	0.664	0.437	1.219	1.055	0.768	0.000	1.436	0.000	1.939	0.000	0.000	0.000	0.000	1.954	0.000	1.290
0.398	0.322	0.000	0.000	0.000	0.328	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.351	0.000	0.000	0.000	0.000	2.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.021	1.056	0.000	0.000	0.000	0.830	0.000	0.000	0.000	0.486	0.399	0.000	0.471	0.000	0.000	0.000	0.683	0.474	0.000	0.381	0.000	0.000	0.875	0.465	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.660	0.522	0.772	0.000	0.846	0.000	0.713	0.906	0.569	0.665	0.000	0.369	0.364	0.389	1.068	0.670	0.680	0.513	1.147	1.030	0.768	0.000	0.000	0.000	2.036	1.958	0.000	0.000	1.316	1.598	0.000	1.185
0.800	0.742	0.862	0.000	0.814	0.000	0.675	0.913	0.482	0.566	0.000	0.303	0.555	0.377	0.580	0.000	0.728	0.563	1.090	0.908	0.613	0.000	1.377	0.000	1.786	0.000	0.000	0.000	1.610	1.993	0.000	1.347
0.660	0.676	0.835	0.000	0.671	0.000	0.539	0.655	0.364	0.000	0.000	0.442	0.658	0.383	0.546	0.894	0.877	0.699	1.147	0.000	0.614	0.000	0.000	0.000	1.879	0.000	0.000	0.000	1.776	2.458	0.000	1.445
0.815	0.813	0.772	0.000	0.724	0.000	0.668	0.944	0.592	0.742	0.000	0.430	0.340	0.498	0.683	0.737	0.736	0.000	1.152	1.053	0.801	0.000	0.000	0.000	1.878	0.000	0.000	0.000	1.657	2.648	0.000	1.264
0.716	0.670	0.811	0.000	0.868	0.783	0.868	0.887	0.542	0.675	0.000	0.000	0.000	0.490	0.602	0.623	0.570	0.387	1.092	1.005	0.764	0.000	0.000	0.000	1.925	0.000	0.000	0.000	0.000	2.240	0.000	1.155
0.714	0.725	0.945	0.000	0.696	0.000	0.636	0.776	0.511	0.559	0.274	0.000	0.593	0.376	0.669	0.613	0.608	0.418	1.162	1.207	0.715	0.000	0.000	0.000	2.038	1.891	0.000	0.000	1.634	2.900	0.000	1.177
0.584	0.000	0.461	0.000	0.803	0.729	0.830	0.994	0.609	0.687	0.000	0.000	0.461	0.727	0.553	0.644	0.558	0.000	1.118	0.858	0.600	0.000	0.000	1.330	1.766	1.600	0.840	0.000	1.442	1.599	0.000	1.013
0.532	0.993	0.682	0.000	0.639	0.000	0.538	0.883	0.503	0.547	0.000	0.585	0.432	0.428	0.635	0.506	0.520	0.378	1.230	1.055	0.792	0.000	1.594	0.000	1.828	0.000	0.000	0.000	1.842	3.457	0.000	1.034
0.704	0.660	0.763	0.872	0.000	0.000	0.721	0.949	0.588	0.675	0.000	0.575	0.460	0.447	0.718	0.452	0.514	0.000	1.441	1.123	0.845	0.000	0.000	1.991	0.000	1.692	1.241	1.341	1.944	2.695	0.000	1.177
0.827	0.784	0.713	0.926	0.895	0.000	0.875	0.000	0.785	0.916	0.340	0.420	0.000	0.555	0.554	0.533	0.484	0.000	1.160	0.855	0.746	0.000	0.000	1.814	0.000	1.647	1.353	1.209	1.833	2.716	0.000	1.166
0.000	0.000	0.000	0.000	0.476	0.511	0.762	0.000	0.000	0.708	0.764	0.000	0.917	0.000	0.000	0.388	0.524	0.000	0.000	0.000	0.000	0.000	0.000	0.748	0.713	0.000	0.000	0.000	0.000	0.000	0.000	1.069
0.364	0.480	0.000	0.000	0.000	0.328	0.385	0.803	0.848	0.000	0.000	1.116	0.962	0.000	0.000	0.000	0.349	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.000	1.592
0.861	0.758	0.691	0.701	0.689	0.000	0.719	0.000	0.720	0.815	0.000	0.414	0.488	0.436	0.494	0.810	0.681	0.000	0.834	0.635	0.465	0.000	1.564	0.000	0.000	2.199	0.000	1.058	2.211	2.099	0.000	1.303
1.038	0.000	0.681	0.914	0.982	0.000	0.955	0.000	0.730	0.821	0.000	0.612	0.000	0.424	0.330	1.200	0.000	0.461	0.669	0.497	0.343	0.000	1.590	0.000	0.000	1.806	0.000	1.164	2.171	0.000	1.480	1.749
0.937	0.863	0.902	0.938	1.005	0.000	0.938	1.095	0.624	0.668	0.327	0.558	0.501	0.376	0.000	1.023	0.818	0.000	0.749	0.605	0.392	0.000	1.509	0.000	0.000	1.879	0.000	0.000	2.037	0.000	1.487	0.000
1.006	0.000	0.929	0.904	0.000	0.000	0.918	0.968	0.549	0.531	0.000	0.450	0.552	0.301	0.452	1.087	0.818	0.454	0.805	0.664	0.431	0.000	1.719	0.000	0.000	2.069	0.000	1.132	2.316	0.000	1.690	0.000
0.000	0.755	0.815	0.884	0.726	0.000	0.776	0.946	0.547	0.559	0.000	0.448	0.511	0.294	0.484	0.909	0.751	0.000	0.838	0.650	0.508	0.000	1.669	0.000	0.000	2.038	0.000	1.069	0.000	2.039	1.443	1.388
0.746	0.000	0.779	0.807	0.000	0.000	0.683	0.828	0.495	0.472	0.257	0.434	0.506	0.241	0.599	0.812	0.719	0.000	1.080	0.856	0.000	0.000	0.000	0.000	0.000	1.885	0.000	1.185	0.000	2.125	0.000	1.278
0.814	0.756	0.608	0.962	0.905	0.000	0.934	0.000	0.616	0.673	0.326	0.541	0.517	0.333	0.350	0.717	0.582	0.000	0.863	0.609	0.511	0.000	1.423	0.000	0.000	1.929	0.881	0.000	2.010	0.000	0.000	1.129
0.553	0.000	0.580	0.758	0.000	0.000	0.591	0.000	0.514	0.433	0.298	0.458	0.347	0.255	0.000	0.505	0.504	0.000	0.990	0.722	0.000	0.000	0.000	0.000	1.654	1.952	0.000	0.979	2.471	2.372	0.000	1.032
0.631	0.000	0.758	0.845	0.748	0.000	0.694	0.776	0.450	0.405	0.287	0.611	0.379	0.246	0.495	0.690	0.593	0.000	0.768	0.607	0.445	0.000	0.000	0.000	1.731	1.684	0.000	0.000	2.150	0.000	0.000	1.085
0.615	0.705	0.789	0.788	0.000	0.000	0.647	0.851	0.531	0.458	0.283	0.555	0.520	0.273	0.466	0.678	0.647	0.000	0.927	0.712	0.556	0.000	0.000	1.715	0.000	1.708	0.000	1.035	2.068	2.075	0.000	1.121
0.665	0.000	0.600	0.564	0.593	0.000	0.513	0.629	0.000	0.000	0.000	0.371	0.532	0.000	0.492	0.894	0.750	0.403	0.719	0.542	0.000	0.000	1.301	0.000	1.618	1.827	0.840	0.951	1.570	1.739	0.000	1.266
0.730	0.788	0.630	0.830	0.810	0.000	0.830	0.000	0.615	0.701	0.000	0.628	0.492	0.466	0.485	0.720	0.720	0.000	0.904	0.751	0.510	0.000	0.000	0.000	1.892	1.945	0.000	1.240	0.000	2.256	1.509	1.303
0.839	0.000	0.748	0.681	0.685	0.000	0.677	1.101	0.665	0.681	0.267	0.395	0.617	0.420	0.437	0.996	0.822	0.500	0.628	0.446	0.350	0.000	1.512	0.000	1.737	1.986	0.000	0.000	1.969	1.960	1.487	1.561
0.904	0.000	0.771	0.751	0.687	0.000	0.758	0.000	0.612	0.611	0.000	0.657	0.000	0.316	0.384	1.073	0.827	0.451	0.621	0.472	0.366	0.000	1.431	0.000	1.585	1.868	0.000	0.000	0.000	0.000	1.253	1.506
0.876	0.000	0.847	0.938	0.891	0.000	0.880	0.927	0.547	0.567	0.274	0.494	0.652	0.302	0.405	1.034	0.757	0.460	0.586	0.408	0.372	0.000	1.299	0.000	0.000	1.753	0.000	0.964	1.571	0.000	1.264	1.483
0.688	0.794	0.700	0.856	0.743	0.000	0.782	0.917	0.547	0.576	0.232	0.501	0.486	0.345	0.516	0.742	0.669	0.000	0.915	0.747	0.523	0.000	0.000	0.000	1.712	1.712	0.000	1.105	2.097	2.362	0.000	1.163
0.997	0.960	0.756	0.930	0.956	0.945	0.000	1.083	0.611	0.709	0.000	0.591	0.672	0.344	0.530	1.041	0.000	0.483	0.658	0.472	0.388	0.516	0.000	1.412	0.000	1.656	0.000	0.000	0.000	1.699	0.000	1.306
1.005	0.918	0.750	0.956	0.896	0.000	0.977	0.000	0.578	0.692	0.000	0.560	0.671	0.353	0.587	1.085	0.906	0.000	0.715	0.504	0.418	0.000	0.000	0.000	1.569	1.807	0.000	1.092	0.000	1.871	0.000	1.420
0.820	0.785	0.721	0.000	0.000	0.000	0.615	0.898	0.500	0.526	0.356	0.561	0.520	0.266	0.407	0.902	0.781	0.479	0.695	0.000	0.390	0.000	0.000	0.000	0.000	1.994	0.000	0.000	1.923	0.000	1.196	1.285
0.800	0.792	0.758	0.828	0.732	0.000	0.751	0.000	0.597	0.605	0.425	0.620	0.597	0.315	0.443	0.971	0.896	0.000	0.800	0.000	0.462	0.000	0.000	0.000	0.000	2.232	0.000	0.000	0.000	2.195	0.000	1.414

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Soil	Year	Study Site	Fence	Treatment	Veg type	Root Biomass	Soil Temp	Soil Moisture	50.16	50.98	53.10	55.12	56.74	59.47	60.15	62.21	63.75	64.81	66.98	67.92	69.93	71.07	72.60	73.02	80.71	83.81	84.87	87.25	88.43
Rhizosphere	2010	1	1	1	1	793.56	15.00	23.34	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Rhizosphere	2010	1	1	2	1	772.40	14.84	24.09	1.034	1.065	0.439	0.406	0.373	0.000	1.691	1.359	1.610	1.223	1.305	1.337	1.095	0.000	0.000	0.617	0.578	0.710	2.109	1.599	2.366
Rhizosphere	2010	1	1	3	1	839.65	14.63	24.00	1.233	1.237	0.493	0.456	0.427	1.262	1.742	1.486	1.829	1.410	1.442	1.560	1.167	0.000	0.000	0.681	0.000	0.740	2.291	1.764	2.653
Rhizosphere	2010	1	1	4	1	987.89	14.71	23.97	1.239	1.263	0.493	0.454	0.407	1.458	1.737	1.486	1.926	1.386	1.505	1.562	1.209	0.000	0.000	0.714	0.439	0.743	2.428	1.813	2.745
Rhizosphere	2010	1	1	5	1	792.45	13.20	26.60	1.459	1.433	0.541	0.498	0.538	2.482	1.930	1.546	2.130	1.650	1.653	2.022	1.153	0.000	0.000	0.743	0.449	0.891	2.617	1.983	3.027
Rhizosphere	2010	1	2	1	2	1258.80	12.91	20.54	1.212	1.217	0.457	0.435	0.415	1.467	1.639	1.465	1.946	1.401	1.558	1.614	1.128	0.000	0.000	0.661	0.493	0.763	2.289	1.773	2.650
Rhizosphere	2010	1	2	2	2	1301.95	12.21	16.40	1.050	1.064	0.303	0.000	0.000	2.232	1.437	1.298	1.661	1.177	1.384	1.488	0.948	0.000	0.000	0.557	0.322	0.600	2.022	1.537	2.250
Rhizosphere	2010	1	2	3	2	1110.40	11.70	15.54	1.063	1.051	0.000	0.000	0.000	3.039	1.416	1.260	1.559	1.146	1.304	1.509	0.849	0.000	0.000	0.594	0.737	0.757	1.981	1.501	2.218
Rhizosphere	2010	1	2	4	2	1211.33	11.81	20.91	0.000	1.156	0.000	0.000	0.000	3.780	0.000	1.379	1.730	1.276	1.375	1.633	1.192	0.000	0.000	0.665	0.655	0.759	2.120	1.582	2.374
Rhizosphere	2010	1	2	5	2	921.12	11.17	23.69	1.137	1.107	0.389	0.370	0.363	2.735	0.000	1.358	1.697	1.223	1.319	1.593	0.896	0.000	0.000	0.506	0.769	0.824	2.119	1.591	2.445
Rhizosphere	2010	1	3	1	1	663.05	14.73	21.14	1.342	1.362	0.449	0.427	0.427	2.026	1.797	1.438	2.032	1.571	1.717	1.890	1.232	0.000	0.000	0.847	0.416	0.762	2.741	1.965	3.172
Rhizosphere	2010	1	3	2	1	769.98	14.67	20.43	1.481	1.464	0.513	0.455	0.511	1.339	1.766	1.399	2.140	1.740	1.856	2.021	1.124	0.000	0.000	0.775	0.493	0.962	2.517	1.755	2.850
Rhizosphere	2010	1	3	3	1	581.01	14.69	29.43	0.978	1.058	0.451	0.417	0.299	1.350	1.377	1.307	1.589	1.189	1.319	1.386	1.007	0.252	0.000	0.633	0.664	0.639	2.121	1.583	2.262
Rhizosphere	2010	1	3	4	1	713.57	15.44	17.74	1.164	1.220	0.474	0.487	0.458	1.097	1.564	1.386	2.012	1.502	1.579	1.796	1.216	0.000	0.000	0.752	0.450	0.780	2.503	1.778	2.383
Rhizosphere	2010	1	3	5	1	953.16	13.66	26.74	1.296	1.335	0.546	0.485	0.537	1.814	1.705	1.518	1.997	1.459	1.635	1.703	1.285	0.000	0.000	0.791	0.653	0.805	2.589	1.915	2.883
Rhizosphere	2010	1	4	1	2	1591.85	12.14	22.94	1.010	1.016	0.436	0.402	0.000	1.558	1.357	1.269	1.676	1.192	1.356	1.307	0.886	0.000	0.000	0.618	0.546	0.694	2.006	1.492	2.211
Rhizosphere	2010	1	4	2	2	1013.42	11.80	22.23	0.000	1.647	0.544	0.482	0.000	1.581	2.217	1.586	2.316	1.670	1.815	2.066	1.265	0.000	0.000	0.929	0.554	1.078	2.734	1.973	3.380
Rhizosphere	2010	1	4	3	2	1407.83	12.29	18.80	1.577	1.515	0.566	0.545	0.550	2.269	2.216	1.659	2.248	1.628	1.694	1.932	1.149	0.000	0.000	0.774	0.000	0.912	2.799	2.120	3.284
Rhizosphere	2010	1	4	4	2	1223.86	11.99	20.80	1.643	1.779	0.672	0.855	0.695	1.126	1.895	1.905	2.162	1.580	1.891	1.515	1.816	0.000	0.000	0.968	0.400	0.876	3.468	2.826	3.708
Rhizosphere	2010	1	4	5	2	1096.25	11.91	20.60	1.397	1.399	0.606	0.622	0.506	2.061	1.877	1.720	2.247	1.596	1.823	1.931	1.317	0.000	0.000	0.835	0.499	0.863	3.046	2.244	3.389
Rhizosphere	2010	2	5	1	1	965.63	13.56	32.91	0.915	0.927	0.411	0.379	0.246	1.574	1.225	1.253	1.408	1.132	1.247	1.304	0.834	0.381	0.000	0.506	0.600	0.665	1.954	1.517	2.089
Rhizosphere	2010	2	5	2	1	961.90	12.30	25.69	0.849	0.875	0.361	0.343	0.221	1.376	1.152	1.129	1.373	1.025	1.195	1.255	0.847	0.309	0.000	0.567	0.672	0.704	1.768	1.359	2.060
Rhizosphere	2010	2	5	3	1	704.04	12.56	34.77	0.960	0.997	0.389	0.359	0.320	1.575	1.324	1.331	1.605	1.237	1.434	1.477	0.980	0.287	0.000	0.663	0.626	0.771	2.103	1.643	2.437
Rhizosphere	2010	2	5	4	1	629.16	12.47	35.66	1.161	1.202	0.432	0.409	0.467	0.993	1.604	1.518	2.039	1.420	1.654	1.600	1.206	0.000	0.000	0.775	0.627	0.813	2.666	1.976	3.009
Rhizosphere	2010	2	5	5	1	519.81	12.41	32.11	0.000	1.180	0.420	0.385	0.350	2.251	2.273	1.463	1.933	1.423	1.521	1.646	1.105	0.000	0.000	0.681	1.007	1.079	2.480	1.880	2.761
Rhizosphere	2010	2	6	1	2	1228.07	13.73	16.14	1.053	1.063	0.456	0.392	0.360	1.202	1.531	1.432	1.740	1.292	1.380	1.443	0.964	0.000	0.000	0.551	0.501	0.699	2.157	1.660	2.401
Rhizosphere	2010	2	6	2	2	980.68	12.74	21.31	0.751	0.798	0.358	0.295	0.244	0.776	1.168	1.193	1.287	1.017	1.087	1.015	0.827	0.472	0.000	0.455	1.291	1.123	1.942	1.455	1.793
Rhizosphere	2010	2	6	3	2	838.48	12.73	18.74	1.158	1.176	0.483	0.437	0.425	1.131	1.489	1.408	1.732	1.307	1.398	1.439	1.000	0.000	0.000	0.618	0.675	0.776	2.277	1.710	2.500
Rhizosphere	2010	2	6	4	2	992.10	12.60	16.31	1.030	1.038	0.437	0.407	0.289	1.511	1.304	1.309	1.571	1.195	1.340	1.376	0.818	0.000	0.000	0.558	0.804	0.755	2.157	1.653	2.408
Rhizosphere	2010	2	6	5	2	1332.21	12.10	25.34	0.989	1.032	0.395	0.346	0.391	1.048	1.333	1.267	1.659	1.227	1.433	1.472	1.052	0.000	0.000	0.637	0.597	0.764	2.153	1.651	2.444
Rhizosphere	2010	3	7	1	1	1227.80	12.26	25.23	0.857	0.899	0.355	0.289	0.000	1.985	1.169	1.239	1.382	1.055	1.352	1.232	0.920	0.000	0.000	0.524	0.814	0.749	1.827	1.469	1.937
Rhizosphere	2010	3	7	2	1	891.33	12.41	32.51	1.194	1.189	0.526	0.426	0.000	0.000	3.634	1.476	1.379	1.746	1.222	1.683	1.445	0.000	0.000	0.941	0.764	0.802	2.113	1.641	2.484
Rhizosphere	2010	3	7	3	1	1332.73	11.53	32.63	1.098	1.095	0.000	0.000	0.000	0.000	2.883	1.260	1.482	1.108	1.193	1.223	1.048	0.000	0.000	0.000	1.341	1.211	2.009	1.534	2.190
Rhizosphere	2010	3	7	4	1	1467.29	11.99	31.77	1.059	0.906	0.561	0.414	0.000	0.000	2.222	1.185	1.399	1.680	1.589	2.212	0.849	0.000	0.000	0.592	0.653	0.973	2.376	1.558	2.514
Rhizosphere	2010	3	7	5	1	1664.89	11.64	34.09	1.138	1.153	0.403	0.374	0.339	1.180	1.666	1.426	1.742	1.356	1.385	1.455	1.088	0.000	0.000	0.705	0.586	0.761	2.347	1.779	2.535
Rhizosphere	2010	3	8	1	2	1411.14	11.54	32.69	1.093	1.102	0.461	0.376	0.394	1.212	1.533	1.366	1.643	1.253	1.316	1.505	0.952	0.431	0.000	0.587	0.516	0.704	2.115	1.590	2.314
Rhizosphere	2010	3	8	2	2	1011.94	10.81	33.14	1.060	1.038	0.413	0.363	0.366	1.145	1.439	1.274	1.609	1.206	1.272	1.346	0.901	0.000	0.000	0.543	0.985	0.995	2.106	1.598	2.304
Rhizosphere	2010	3	8	3	2	1159.45	10.13	33.66	1.091	1.081	0.476	0.443	0.427	1.265	1.453	1.297	1.646	1.249	1.317	1.539	0.908	0.479	0.000	0.550	0.600	0.718	2.155	1.652	2.394
Rhizosphere	2010	3	8	4	2	911.38	10.11	40.91	0.986	0.990	0.428	0.363	0.325	1.282	1.387	1.284	1.599	1.188	1.193	1.319	0.899	0.488	0.000	0.540	0.946	0.862	1.965	1.479	2.132
Rhizosphere	2010	3	8	5	2	902.22	10.43	36.89	1.028	1.039	0.393	0.333	0.322	1.813	1.363	1.225	1.561	1.165	1.310	1.423	0.978	0.424	0.000	0.561	0.851	0.847	1.989	1.500	2.243
Rhizosphere	2010	4	9	1	1	487.50	15.61	14.60	1.520	1.447	0.631	0.593	0.586	1.753	2.159	1.579	2.235	1.666	1.744	1.956	1.377	0.000	0.000	0.874	0.000	0.850	2.944	2.094	3.355
Rhizosphere	2010	4	9	2	1	387.52	14.23	22.91	1.460	1.451	0.517	0.598	0.583	1.831	2.034	1.579	2.299	1.650	1.878	2.105	1.591	0.000	0.000	1.077	0.440	0.891	2.923	2.013	3.154
Rhizosphere	2010	4	9	3	1	691.63	15.34	17.09	1.310	1.358	0.696	0.724	0.650	1.397	1.792	1.771	2.304	1.755	1.875	1.934	1.408	0.000	0.000	0.869	0.324	0.795	3.103	2.282	3.407
Rhizosphere	2010	4	9	4	1	1306.95	14.93	20.37	1.347	1.371	0.665	0.621	0.590	1.404	1.769	1.608	2.162	1.625	1.726	1.872	1.523	0.000	0.000	1.026	0.502	0.725	2.916	2.106	3.343
Rhizosphere	2010	4	9	5	1	757.83	13.96	26.06	1.328	1.348	0.609	0.603	0.534	1.293	1.730	1.665	2.256	1.646	1.795	1.876	1.437	0.000	0.000	0.935	0.459	0.715	3.005	2.118	3.315
Rhizosphere	2010	4	10	1	2	1051.15	13.74	17.43	1.162	1.219	0.452	0.429	0.427	1.480	1.555	1.433	1.896	1.357	1.487	1.610	1.049	0.000	0.000	0.735	0.293	0.694	2.410	1.795	2.731
Rhizosphere	2010	4	10	2	2	961.74	13.70	23.09	1.515	1.509	0.493	0.486	0.556	1.296	1.863	1.391	2.088	1.546	1.951	1.882	1.185	0.000	0.000	0.792	0.444	0.964	2.626	1.848	3.261
Rhizosphere	2010	4	10	3	2	2044.88	13.19	23.60	1.537	1.510	0.590	0.621	0.675	0.000	1.937	1.236	1.853	1.053	1.456	2.238	1.014	1.954	0.000	1.219	0.480	1.058	2.624	1.900	3.265
Rhizosphere	2010	4	10	4	2	1588.53	13.41	22.46	1.413	1.419	0.000	0.404	0.427	0.000	3.442	1.493	2.160	1.557	1.639	1.809	1.414	0.000	0.000	0.726	0.930	0.000	2.316	1.823	2.994
Rhizosphere	2010	4	10	5	2	624.43	11.63	28.63	0.780	0.786	0.355	0.335	0.000	0.000	1.412	1.182	1.406	1.080	1.142	1.107	0.984	0.346	0.000	0.564	0.912	0.789	1.869	1.460	1.864
Rhizosphere	2010	5	11	1	1	999.16	15.30	25.60	0.895	0.909	0.399	0.389	0.325	0.974	1.411	1.320	1.432	1.103	1.164	1.224	0.862	0.423	0.000	0.000	0.498	0.621	1.953	1.461	2.127
Rhizosphere	2010	5	11	2	1	732.15	15.57	18.71	0.892	0.882	0.416	0.391	0.000	0.000	1.310	1.296	1.476	1.125	1.198	1.143	0.864	0.881	0.000	0.000	0.444	0.580	1.918	1.510	1.942
Rhizosphere	2010	5	11	3	1	624.53	15.47	22.26	0.898	0.886	0.513	0.455	0.000	0.921	1.303	1.084	1.267	1.425	1.258	1.717	1.029	0.447	0.000	0.675	0.262	0.714	2.031	1.331	2.233
Rhizosphere	2010	5	11	4	1	1135.24	15.67	19.71	0.839	0.823	0.356	0.342	0.275	0.848	1.241	1.408	1.495	1.152	1.192	1.142	0.836	0.782	0.000	0.554	0.361	0.555	1.873	1.504	1.910
Rhizosphere	2010	5	11	5	1	1272.95	14.77	28.29	0.798	0.796	0.447	0.387	0.288	0.961	1.194	1.205	1.341	1.040	1.090	1.143	0.820	0.566	0.000	0.532	0.545	0.562	1.746	1.314	1.754
Rhizosphere	2010	5	12	1	2	644.11	15.77	21.34	1.107	1.093	0.439	0.354	0.360	1.217	1.432	1.416	1.577	1.299	1.438	1.559	1.021	0.000	0.000	0.602	0.277	0.674	2.142	1.611	2.357
Rhizosphere	2010	5	12	2	2	1538.38	15.77	19.57	0.905	0.885	0.408	0.384	0.000	0.000	2.165	1.339	1.433	1.111	1.140	1.169	0.957	0.939	0.000	0.665	0.444	0.545	1.842	1.448	1.987
Rhizosphere	2010	5	12	3	2	1387.94	14.40	15.26	0.908	0.865	0.384	0.378	0.304	0.998	1.432	1.214	1.376	1.121	1.160	1.287	0.890	0.531	0.000	0.463	0.513	0.638	1.921	1.481	2.051
Rhizosphere	2010	5	12	4	2	1547.65	15.86	19.97	1.329	1.245	0.452	0.361	0.365	1.314	1.867	1.372	1.685	1.365	1.324	1.318	0.938	0.000	0.000	0.649	1.000	0.846	2.705	1.863	2.577
Rhizosphere	2010	5	12	5	2	786.03	13.97	20.17	1.093	1.072	0.468	0.436	0.374	1.170	1.539	1.378	1.721	1.272	1.393	1.395	1.030	0.552	0.000	0.610	0.442	0.000	2.259	1.654	2.452
Rhizosphere	2010	5	13	1	1	993.63	14.19	20.14	1.191	1.188	0.483	0.438	0.424	1.287	1.607	1.405	1.775	1.442	1.482	1.624	1.041	0.000	0.000	0.656	0.560	0.766	2.355	1.733	2.574
Rhizosphere	2010	5	13	2	1	1504.97	14.67	22.14	1.003	1.025	0.447	0.410	0.361	1.025	1.388	1.384	1.579	1.278	1.299	1.309	0.942	0.562	0.000	0.587	0.366	0.601	2.072	1.554	2.140
Rhizosphere	2010	5	13	3	1	1106.98	14.39	22.20	1.107	1.069	0.455	0.407	0.000	1.023	1.408	1.392	1.684	1.301	1.307	1.530	1.027	1.097	0.000	0.850	0.552	0.698	2.076	1.554	2.290
Rhizosphere	2010	5	13	4	1	826.08	13.57	21.77	1.021	1.045	0.402	0.332	0.345	1.215	1.422	1.349	1.617	1.178	1.277	1.385	0.990	0.498	0.000	0.602	0.711	0.742	2.098	1.591	2.308
Rhizosphere	2010	5	13	5	1	850.65	13.89	29.14	1.091	1.087	0.433	0.378	0.000	2.270	0.000	1.500	1.658	1.316	1.323	1.677	0.911	0.967	0.000	0.801	0.840	0.947	2.099	1.580	2.375
Rhizosphere	2010	5	14	1	2	1973.16	13.56	27.06	1.007	1.004	0.419	0.324	0.341	1.680	1.567	1.367	1.629	1.219	1.278	1.466	0.884	0.276	0.000	0.554	0.792	0.841	1.987	1.480	2.117
Rhizosphere	2010	5	14	2	2	1070.62	12.44	21.77	1.027	1.021	0.409	0.364	0.295	1.940	1.457	1.367	1.529	1.170	1.289	1.433	0.912	0.542	0.000	0.527	0.513	0.698	1.963	1.514	2.180
Rhizosphere	2010	5	14	3	2	849.76	11.90	19.43	1.041	1.036	0.416	0.390	0.265	1.696	1.439	1.317	1.669	1.236	1.318	1.482	0.887	0.335	0.000	0.571	0.887	0.894	2.053	1.516	2.195
Rhizosphere	2010	5	14	4	2	1266.59	11.24	21.49	1.008	0.964	0.000	0.417	0.000	1.547	1.523	1.083	1.735	2.188	2.000	2.862	1.477	0.000	0.000	1.139	0.739	1.087	2.282	1.497	2.378
Rhizosphere	2010	5	14	5	2	1161.13	11.47	25.46	1.052	1.061	0.380	0.359	0.258	1.874	1.410	1.259	1.709	1.254	1.466	1.561	0.960	0.325	0.000	0.651	0.784	0.878	2.083	1.561	2.441
Rhizosphere	2010	6	15	1	1	355.68	11.79	35.51	1.202	1.187	0.492	0.468	0.546	0.940	1.625	1.470	1.922	1.404	1.554	1.724	1.017	0.000	0.000	0.657	0.757	0.851	2.296	1.717	2.709
Rhizosphere	2010	6	15	2	1	404.72	12.26	35.57	1.727	1.729	0.000	0.000	0.000	2.873	1.977	1.700	2.316	1.823	0.000	0.000	0.000	0.000	0.000	0.000	0.884	1.200	2.873	2.123	3.355
Rhizosphere	2010	6	15	3	1	453.14	13.36	32.00	0.000	1.434	0.501	0.413	0.444	3.328	0.000	1.535	2.073	1.529	1.646	1.926	1.091	0.000	0.000	0.689	1.088	1.055	2.559	1.922	3.029
Rhizosphere	2010	6	15	4	1	533.76	11.49	40.37	1.177	1.213	0.450	0.397	0.371	1.400	1.702	1.483	1.980	1.383	1.428	1.603	1.081	0.000	0.000	0.771	0.504	0.763	2.254	1.708	2.613
Rhizosphere	2010	6	15	5	1	877.07	10.44	42.91	1.152	1.180	0.533	0.538	0.445	1.410	1.655	1.430	1.872	1.342	1.377	1.494	0.987	0.256	0.000	0.626	0.436	0.739	2.305	1.705	2.600
Rhizosphere	2010	6	16	1	2	1317.00	11.24	41.51	1.340	1.332	0.423	0.433	0.000	1.487	1.719	1.345	1.949	1.475	1.633	1.969	0.921	0.225	0.000	0.689	0.580	0.987	2.230	1.590	2.710
Rhizosphere	2010	6	16	2	2	872.54	11.73	41.51	1.518	1.516	0.479	0.370	0.391	1.983	1.905	1.468	2.256	1.703	1.868	2.090	1.290	0.000	0.000	0.918	0.623	1.093	2.510	1.831	3.126
Rhizosphere	2010	6	16	3	2	1751.09	10.94	49.71	1.286	1.252	0.598	0.589	0.592	0.978	1.715	1.514	2.040	1.525	1.654	1.769	1.187	0.000	0.000	0.843	0.362	0.824	2.564	1.860	2.809
Rhizosphere	2010	6	16	4	2	836.76	11.20	42.89	1.237	1.275	0.468	0.438	0.511	0.942	1.647	1.468	1.903	1.521	1.585	1.741	1.319	0.342	0.000	0.763	0.649	0.917	2.470	1.776	2.706
Rhizosphere	2010	6	16	5	2	883.81	11.19	36.40	1.151	1.150	0.515	0.499	0.439	0.964	1.533	1.404	1.748	1.325	1.370	1.528	1.038	0.000	0.000	0.692	0.894	0.953	2.272	1.690	2.557
Rhizosphere	2010	6	17	1	1	553.49	14.47	22.97	0.000	1.063	0.452	0.409	0.000	2.246	2.127	1.420	1.681	1.289	1.367	1.514	0.997	0.435	0.000	0.621	0.471	0.725	2.207	1.658	2.448
Rhizosphere	2010	6	17	2	1	416.25	14.10	21.37	1.605	1.616	0.513	0.548	0.583	1.542	2.029	1.494	2.269	1.626	1.787	2.088	1.218	0.000	0.000	0.857	0.419	1.060	2.704	1.910	3.015
Rhizosphere	2010	6	17	3	1	544.91	12.77	31.71	1.303	1.178	0.000	0.345	0.321	1.153	1.867	1.275	2.001	2.114	1.968	2.686	1.278	0.000	0.000	1.081	1.045	1.092	2.489	1.539	2.653
Rhizosphere	2010	6	17	4	1	321.69	11.96	29.06	1.232	1.244	0.465	0.457	0.488	1.106	1.735	1.525	2.011	1.498	1.653	1.757	1.206	0.000	0.000	0.698	0.689	0.872	2.578	1.837	2.813
Rhizosphere	2010	6	17	5	1	558.33	13.00	25.46	1.474	1.441	0.552	0.529	0.519	1.185	1.809	1.568	2.043	1.613	1.735	1.846	1.261	0.000	0.000	0.744	0.816	1.014	2.603	1.949	2.919
Rhizosphere	2010	6	18	1	2	645.21	13.24	34.51	1.362	1.370	0.569	0.601	0.613	1.089	1.790	1.585	2.172	1.631	1.677	1.923	1.188	0.000	0.000	0.754	0.538	0.987	2.729	1.958	3.147
Rhizosphere	2010	6	18	2	2	542.39	12.11	38.49	1.452	1.478	0.578	0.576	0.625	1.003	1.809	1.514	2.034	1.486	1.571	1.715	1.131	0.000	0.000	0.751	0.377	0.865	2.584	1.861	2.928
Rhizosphere	2010	6	18	3	2	521.02	11.00	34.83	1.114	1.101	0.419	0.378	0.378	1.782	1.497	1.311	1.670	1.259	1.432	1.509	0.000	0.000	0.000	0.000	0.478	0.790	2.092	2.092	2.283
Rhizosphere	2010	6	18	4	2	848.65	11.81	30.74	1.478	1.442	0.528	0.526	0.448	2.297	2.343	1.547	2.038	1.476	1.604	1.768	1.139	0.000	0.000	0.728	0.566	0.932	2.623	1.935	2.908
Rhizosphere	2010	6	18	5	2	972.58	10.96	44.80	1.327	1.334	0.456	0.438	0.420	1.294	1.836	1.579	2.024	1.564	1.579	1.878	1.087	0.263	0.000	0.692	0.599	1.001	2.653	1.935	2.914

90.13	91.01	94.18	103.78	104.79	106.53	108.73	109.93	120.76	121.91	124.15	125.19	127.49	130.96	134.07	137.62	138.78	140.42	142.49	144.41	146.07	148.11	151.74	157.52	160.34	163.24	169.00	170.92	172.33	181.44	193.17	195.82	197.81	198.75
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.480	0.311	0.000	1.130	0.598	0.408	0.414	0.386	0.515	0.000	0.980	1.181	0.609	0.644	1.066	1.225	0.912	0.757	0.000	1.596	1.718	0.942	0.846	0.768	0.644	0.852	0.566	0.576	0.217	0.597	0.979	0.897	0.881
0.000	0.458	0.000	0.000	1.269	0.649	0.443	0.474	0.337	0.495	0.596	0.896	1.145	0.504	0.639	0.991	1.285	0.852	0.752	0.750	1.518	1.617	0.787	0.826	0.669	0.508	0.752	0.413	0.456	0.000	0.644	1.092	0.996	0.998
0.000	0.000	0.349	0.000	1.301	0.729	0.501	0.572	0.344	0.447	0.548	0.833	1.351	0.603	0.468	0.871	1.173	0.000	0.621	0.708	1.487	1.448	0.652	0.624	0.386	0.000	0.632	0.420	0.000	0.000	0.653	1.077	1.016	0.974
0.000	0.430	0.000	0.000	1.567	0.583	0.476	0.504	0.000	0.000	0.000	0.707	0.951	0.424	0.000	0.512	0.788	0.000	0.000	0.000	1.052	1.057	0.000	0.464	0.000	0.000	0.481	0.000	0.420	0.000	0.417	1.062	0.961	0.974
0.000	0.000	0.296	0.000	1.272	0.670	0.472	0.482	0.388	0.537	0.542	0.754	1.152	0.517	0.393	0.802	1.160	0.739	0.657	0.664	1.309	1.421	0.722	0.751	0.514	0.000	0.625	0.346	0.405	0.336	0.581	1.123	1.049	1.061
0.000	0.395	0.000	0.000	1.055	0.577	0.379	0.429	0.333	0.661	0.590	0.869	1.146	0.523	0.462	0.934	1.088	0.832	0.675	0.789	1.512	1.637	1.211	0.793	0.000	0.471	0.606	0.000	0.346	0.379	0.506	0.925	0.846	0.850
0.000	0.000	0.000	0.000	1.055	0.499	0.000	0.000	0.000	0.714	0.000	0.957	1.244	0.569	0.472	0.962	1.245	0.898	0.671	0.781	1.423	1.530	1.030	0.546	0.579	0.464	0.637	0.000	0.000	0.000	0.000	0.771	0.771	0.701
0.000	0.000	0.000	0.000	1.139	0.468	0.000	0.000	0.000	0.632	0.687	0.797	1.480	0.665	0.000	0.920	0.994	0.818	0.582	0.738	1.354	1.487	1.139	0.824	0.000	0.000	0.877	0.000	0.579	0.516	0.000	0.837	0.821	0.886
0.000	0.000	0.000	0.000	1.148	0.480	0.000	0.370	0.000	0.715	0.641	0.893	1.596	0.746	0.412	0.942	1.054	0.825	0.651	0.782	1.353	1.646	1.169	0.877	0.000	0.516	0.756	0.314	0.487	0.497	0.414	0.915	0.874	0.894
0.000	0.000	0.377	0.000	1.399	0.731	0.502	0.650	0.502	0.480	0.451	0.693	0.983	0.439	0.316	0.650	0.904	0.553	0.432	0.570	1.316	1.110	0.416	0.528	0.000	0.000	0.441	0.000	0.000	0.000	0.478	1.054	0.968	0.971
0.000	0.320	0.351	0.000	1.546	0.758	0.470	0.598	0.402	0.483	0.466	0.725	1.085	0.481	0.426	0.650	0.901	0.000	0.545	0.539	1.335	1.350	0.587	0.630	0.384	0.000	0.474	0.372	0.345	0.000	0.457	1.181	1.063	1.132
0.000	0.569	0.372	0.000	1.038	0.575	0.396	0.404	0.390	0.691	0.722	0.948	1.190	0.577	0.699	1.214	1.525	1.056	0.939	0.945	1.593	1.643	0.861	0.810	0.687	0.546	0.941	0.481	0.580	0.309	0.631	1.035	0.991	0.933
0.000	0.000	0.301	0.000	1.391	0.735	0.516	0.588	0.355	0.416	0.446	0.776	0.921	0.469	0.414	0.732	1.015	0.617	0.607	0.585	1.265	1.379	0.533	0.000	0.000	0.000	0.524	0.420	0.359	0.000	0.618	1.140	1.028	1.102
0.000	0.000	0.000	0.000	1.374	0.777	0.505	0.524	0.327	0.455	0.426	0.770	1.046	0.529	0.363	0.789	1.281	0.000	0.692	0.735	1.367	1.182	0.464	0.558	0.000	0.000	0.585	0.426	0.485	0.000	0.512	1.097	0.989	0.995
0.000	0.420	0.364	0.000	1.080	0.503	0.301	0.000	0.439	0.623	0.691	0.901	1.232	0.614	0.617	1.073	1.617	1.101	0.907	0.878	1.493	1.444	0.902	0.716	0.717	0.667	0.727	0.416	0.534	0.000	0.520	0.891	0.934	0.842
0.000	0.000	0.000	0.000	1.744	0.800	0.527	0.646	0.000	0.648	0.000	0.000	0.000	0.000	0.000	0.000	0.492	0.000	0.000	0.000	0.654	0.829	0.000	0.425	0.000	0.000	0.469	0.329	0.405	0.000	0.439	1.210	1.041	1.168
0.000	0.402	0.000	0.000	1.620	0.724	0.454	0.536	0.000	0.738	0.000	0.000	0.000	0.000	0.000	0.000	0.617	0.392	0.000	0.000	0.756	0.877	0.000	0.421	0.000	0.000	0.471	0.379	0.382	0.000	0.424	1.070	0.940	0.993
0.000	0.000	0.000	0.000	1.661	0.792	0.621	0.409	0.318	0.000	0.000	0.480	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.342	0.375	0.680	0.000	0.409	0.941	1.039	0.772
0.000	0.000	0.000	0.000	1.508	0.691	0.509	0.518	0.000	0.000	0.000	0.000	0.811	0.000	0.000	0.466	0.585	0.000	0.000	0.000	0.825	1.073	0.368	0.455	0.000	0.000	0.659	0.441	0.504	0.000	0.452	1.178	1.117	1.108
0.000	0.000	0.000	0.000	1.002	0.557	0.418	0.410	0.469	0.575	0.657	0.000	1.062	0.565	0.808	1.194	1.573	1.098	0.973	1.216	1.631	1.521	0.880	0.820	0.873	0.000	1.102	0.653	0.817	0.397	0.624	0.973	0.934	0.853
0.000	0.000	0.268	0.000	0.960	0.539	0.386	0.383	0.488	0.638	0.689	0.800	1.039	0.569	0.723	1.154	1.395	1.051	0.864	1.114	1.495	1.341	0.807	0.711	0.777	0.715	0.998	0.691	0.808	0.384	0.601	0.979	0.971	0.974
0.000	0.460	0.254	0.000	1.083	0.536	0.423	0.392	0.000	0.641	0.699	0.869	1.119	0.561	0.730	1.104	1.335	0.989	0.820	1.122	1.466	1.350	0.730	0.730	0.739	0.631	1.025	0.585	0.746	0.304	0.622	1.044	1.020	0.997
0.000	0.000	0.000	0.000	1.336	0.629	0.472	0.472	0.383	0.000	0.000	0.742	1.033	0.472	0.395	0.000	1.229	0.761	0.634	0.726	1.284	1.218	0.542	0.563	0.632	0.000	0.805	0.405	0.539	0.000	0.560	1.109	1.036	1.006
0.000	0.344	0.000	0.000	1.254	0.619	0.356	0.415	0.393	0.493	0.549	0.659	1.106	0.447	0.502	0.897	1.275	0.822	0.654	0.838	1.539	1.215	0.608	0.407	0.399	0.000	0.729	0.425	0.471	0.000	0.558	1.038	0.955	0.928
0.000	0.359	0.260	0.000	1.156	0.544	0.433	0.415	0.479	0.677	0.683	0.920	1.432	0.694	0.585	0.977	1.115	0.892	0.740	0.913	1.652	1.821	1.331	0.863	0.828	0.712	0.815	0.551	0.526	0.304	0.550	1.020	0.966	0.911
0.000	0.509	0.306	0.000	0.768	0.552	0.407	0.395	0.563	0.773	0.807	0.853	1.499	0.731	0.686	1.138	1.276	0.990	0.843	1.109	1.779	1.668	1.179	0.863	0.823	0.636	0.754	0.518	0.530	0.448	0.476	0.882	0.866	0.742
0.000	0.000	0.298	0.000	1.193	0.668	0.508	0.531	0.419	0.633	0.000	0.860	1.340	0.634	0.562	0.931	1.192	0.851	0.000	0.823	1.506	1.653	1.090	0.894	0.752	0.679	0.894	0.502	0.585	0.376	0.545	1.034	0.972	0.971
0.000	0.459	0.281	0.000	1.120	0.552	0.390	0.421	0.488	0.681	0.698	0.941	1.336	0.624	0.582	0.995	1.292	0.901	0.817	0.866	1.610	1.824	1.218	0.897	0.855	0.815	0.844	0.534	0.586	0.321	0.553	0.940	0.898	0.874
0.000	0.438	0.251	0.000	1.128	0.632	0.431	0.471	0.402	0.576	0.595	0.805	1.167	0.548	0.428	0.872	1.223	0.812	0.717	0.737	1.309	1.501	0.868	0.674	0.583	0.586	0.907	0.404	0.566	0.249	0.606	1.060	1.016	1.026
0.000	0.619	0.298	0.000	0.899	0.384	0.277	0.264	0.000	0.964	0.805	1.132	1.786	0.955	0.000	1.267	1.101	1.081	0.779	0.972	1.679	1.697	1.360	0.814	0.821	0.601	0.689	0.530	0.464	1.145	0.536	0.921	0.838	0.787
0.000	0.000	0.000	0.000	1.196	0.567	0.418	0.000	0.480	0.729	0.739	0.905	1.289	0.764	0.620	1.031	1.125	0.903	0.606	0.849	1.870	1.564	1.024	0.591	0.724	0.591	0.836	0.591	0.724	0.000	0.591	1.007	1.007	1.007
0.000	0.000	0.000	0.000	0.984	0.000	0.000	0.000	0.000	0.696	0.685	0.939	1.434	0.601	0.000	0.923	0.802	0.726	0.000	0.741	1.457	1.432	1.051	0.871	0.000	0.000	0.746	0.000	0.000	0.595	0.000	0.000	0.653	0.000
0.000	0.000	0.485	0.000	1.115	0.000	0.000	0.000	0.000	0.542	0.547	0.680	1.010	0.426	0.408	0.854	1.071	0.815	0.638	0.817	1.503	1.165	0.669	0.642	0.469	0.395	0.831	0.485	0.691	0.395	0.361	0.528	0.523	0.455
0.000	0.405	0.297	0.000	1.155	0.570	0.376	0.366	0.410	0.565	0.600	0.000	1.229	0.503	0.620	0.994	1.204	0.841	0.672	0.884	1.568	1.275	0.669	0.653	0.631	0.553	0.896	0.444	0.600	0.344	0.553	1.059	1.016	0.959
0.000	0.000	0.000	0.000	1.147	0.515	0.413	0.437	0.404	0.638	0.624	0.000	1.442	0.699	0.479	0.959	0.943	0.836	0.647	0.813	1.352	1.760	1.298	0.720	0.000	0.639	0.971	0.489	0.608	0.624	0.535	0.997	0.912	0.910
0.000	0.549	0.351	0.000	1.091	0.553	0.389	0.373	0.409	0.772	0.652	0.824	1.432	0.653	0.000	0.987	1.032	0.846	0.721	0.882	1.531	1.561	0.945	0.577	0.549	0.426	0.691	0.458	0.439	0.656	0.570	1.004	0.867	0.863
0.000	0.514	0.000	0.000	1.106	0.422	0.277	0.277	0.000	0.710	0.650	0.782	1.579	0.793	0.487	0.963	0.997	0.826	0.706	0.947	1.332	1.688	1.222	0.556	0.555	0.466	0.887	0.543	0.555	0.629	0.484	1.034	0.959	0.933
0.000	0.653	0.386	0.000	0.987	0.571	0.389	0.425	0.000	0.746	0.632	0.757	1.602	0.791	0.634	1.083	1.046	0.901	0.825	0.926	1.239	1.425	0.910	0.590	0.592	0.480	0.826	0.548	0.561	0.669	0.515	1.047	0.878	0.864
0.000	0.630	0.465	0.000	0.995	0.473	0.000	0.000	0.000	0.641	0.583	0.763	1.524	0.687	0.555	0.962	1.046	0.833	0.697	0.867	1.293	1.433	0.928	0.503	0.000	0.347	0.628	0.477	0.411	0.543	0.510	1.006	0.878	0.874
0.000	0.456	0.283	0.000	1.698	0.861	0.565	0.668	0.375	0.000	0.000	0.520	0.678	0.296	0.000	0.375	0.608	0.325	0.291	0.000	0.759	0.762	0.000	0.439	0.000	0.000	0.545	0.443	0.527	0.000	0.534	1.159	1.025	1.072
0.000	0.000	0.370	0.000	1.691	0.840	0.576	0.672	0.370	0.000	0.000	0.486	0.449	0.299	0.000	0.248	0.301	0.248	0.000	0.000	0.444	0.468	0.000	0.399	0.000	0.000	0.359	0.337	0.401	0.000	0.517	1.174	1.074	1.161
0.000	0.000	0.000	0.000	1.477	0.901	0.673	0.691	0.000	0.000	0.000	0.584	0.626	0.321	0.000	0.420	0.613	0.345	0.000	0.357	0.777	0.791	0.000	0.446	0.000	0.000	0.677	0.471	0.561	0.000	0.604	1.196	1.142	1.121
0.000	0.000	0.316	0.000	1.512	0.767	0.588	0.635	0.368	0.400	0.318	0.547	0.867	0.384	0.316	0.502	0.673	0.446	0.366	0.337	0.965	0.992	0.332	0.410	0.000	0.000	0.568	0.335	0.410	0.000	0.559	1.201	1.104	1.181
0.000	0.000	0.332	0.000	1.484	0.707	0.449	0.520	0.000	0.000	0.000	0.577	0.673	0.343	0.000	0.485	0.624	0.332	0.000	0.000	0.825	0.728	0.000	0.392	0.000	0.000	0.447	0.362	0.000	0.000	0.563	1.083	0.996	1.016
0.000	0.399	0.300	0.000	1.207	0.680	0.506	0.507	0.392	0.457	0.000	0.802	1.089	0.478	0.538	0.906	1.311	0.784	0.749	0.712	1.310	1.498	0.808	0.758	0.575	0.452	0.734	0.399	0.488	0.000	0.540	1.099	1.033	1.051
0.000	0.000	0.345	0.000	1.664	0.742	0.539	0.647	0.000	0.000	0.000	0.527	0.712	0.323	0.000	0.414	0.668	0.466	0.000	0.000	0.655	0.710	0.000	0.401	0.000	0.000	0.537	0.342	0.495	0.000	0.681	1.336	1.167	1.312
0.000	0.000	0.380	0.000	1.755	0.917	0.612	0.688	0.000	0.000	0.290	0.398	0.336	0.608	0.612	0.386	0.685	0.406	0.000	0.000	0.666	0.893	0.000	0.436	0.000	0.000	0.494	0.340	0.384	0.380	0.596	1.242	1.056	1.210
0.000	0.000	0.000	0.000	1.254	0.456	0.000	0.000	0.000	0.515	0.530	0.883	0.964	0.000	0.000	0.000	1.071	0.863	0.676	0.000	1.273	1.200	0.000	0.000	0.000	0.000	0.574	0.000	0.000	0.000	0.000	0.785	0.767	0.000
0.000	0.493	0.257	0.000	0.776	0.546	0.397	0.402	0.487	0.653	0.721	0.798	1.049	0.495	0.796	1.238	1.609	1.097	1.013	0.975	1.522	1.390	0.768	0.646	0.656	0.599	1.126	0.541	0.805	0.331	0.518	0.892	0.878	0.773
0.000	0.000	0.270	0.000	0.972	0.603	0.404	0.414	0.394	0.802	0.740	0.961	1.313	0.618	0.704	1.097	1.061	0.903	0.000	0.938	1.858	1.832	1.263	0.951	0.000	0.537	1.026	0.000	0.645	0.303	0.458	0.901	0.872	0.968
0.000	0.480	0.271	0.000	0.861	0.495	0.341	0.349	0.539	0.689	0.660	0.961	1.156	0.526	0.750	1.140	1.360	0.966	0.858	1.014	2.014	1.730	1.072	0.761	0.000	0.580	0.847	0.491	0.534	0.224	0.665	0.982	0.967	0.925
0.000	0.463	0.406	0.000	1.081	0.591	0.415	0.553	0.456	0.653	0.686	0.922	1.311	0.689	0.838	1.029	1.216	1.047	0.950	1.375	1.516	1.735	1.207	0.968	0.000	0.755	1.376	0.649	1.099	0.000	0.449	1.045	0.913	1.135
0.000	0.514	0.231	0.000	0.882	0.479	0.370	0.387	0.549	0.659	0.718	1.052	1.349	0.630	0.832	1.287	1.219	1.002	0.806	1.011	1.802	1.911	1.148	0.974	0.000	0.735	1.113	0.607	0.672	0.277	0.556	0.948	0.927	1.059
0.000	0.555	0.317	0.000	0.809	0.489	0.366	0.377	0.531	0.709	0.931	0.958	1.307	0.644	0.996	1.250	1.234	1.206	0.844	1.558	1.644	1.785	1.216	0.843	0.000	0.653	1.652	0.797	1.230	0.000	0.602	0.919	0.884	1.028
0.000	0.410	0.279	0.000	1.157	0.596	0.430	0.471	0.455	0.741	0.768	1.144	1.355	0.658	0.659	1.005	1.043	0.838	0.000	0.876	1.679	2.050	1.520	1.098	0.000	0.517	0.439	0.374	0.317	0.000	0.653	1.074	0.963	0.948
0.000	0.000	0.000	0.000	0.875	0.456	0.000	0.000	0.000	0.782	0.703	0.993	1.715	0.868	0.546	1.164	0.901	0.866	0.000	0.887	1.234	1.785	1.618	0.964	0.000	0.925	0.925	0.487	0.554	0.522	0.412	0.802	0.692	0.652
0.000	0.519	0.000	0.000	0.888	0.442	0.298	0.333	0.330	0.871	0.735	1.078	1.871	1.000	0.529	1.189	0.966	1.200	0.000	0.847	1.447	1.981	1.650	0.875	0.830	0.812	0.985	0.486	0.580	0.520	0.418	0.897	0.781	0.763
0.000	0.457	0.000	0.000	1.436	0.524	0.000	0.355	0.000	0.462	0.524	0.850	1.025	0.423	0.582	0.950	1.502	0.817	0.805	0.872	1.777	1.538	0.577	0.746	0.417	0.000	0.784	0.000	0.469	0.000	0.702	1.117	0.958	0.967
0.000	0.000	0.000	0.000	1.156	0.616	0.412	0.419	0.389	0.623	0.565	0.875	1.218	0.551	0.849	1.040	0.970	0.803	0.737	0.894	1.592	1.957	1.284	0.850	0.000	0.516	1.170	0.503	0.708	0.343	0.564	1.038	0.941	1.037
0.000	0.000	0.000	0.000	1.211	0.648	0.471	0.534	0.406	0.556	0.584	0.865	1.155	0.546	0.522	0.979	1.473	0.843	0.798	0.844	1.375	1.428	0.710	0.768	0.712	0.539	1.020	0.490	0.587	0.000	0.554	1.147	1.046	1.016
0.000	0.452	0.277	0.000	1.000	0.554	0.372	0.409	0.409	0.651	0.648	0.998	1.233	0.626	0.799	1.226	1.229	0.993	0.840	1.277	1.573	1.773	1.177	0.957	0.901	0.625	1.301	0.668	0.870	0.420	0.631	0.988	0.926	0.989
0.000	0.462	0.000	0.000	1.111	0.582	0.409	0.431	0.425	0.747	0.710	0.000	1.962	1.025	0.592	0.950	0.970	0.803	0.629	1.012	1.277	1.727	1.262	0.676	0.000	0.670	1.090	0.558	0.711	0.369	0.536	0.952	0.854	0.851
0.000	0.000	0.000	0.000	1.017	0.594	0.400	0.369	0.392	0.664	0.620	0.921	1.501	0.748	0.646	1.025	1.169	0.885	0.733	0.925	1.397	1.662	1.143	0.851	0.782	0.607	1.312	0.601	0.873	0.507	0.609	0.983	0.881	0.937
0.000	0.000	0.354	0.000	1.153	0.577	0.465	0.465	0.316	0.655	0.613	0.791	1.948	1.016	0.573	0.926	0.884	0.802	0.646	0.920	1.180	1.582	1.157	0.691	0.000	0.505	1.134	0.509	0.659	0.510	0.569	0.875	0.799	0.781
0.000	0.439	0.322	0.000	0.988	0.531	0.288	0.305	0.400	0.816	0.677	0.932	1.366	0.652	0.517	1.179	1.031	0.958	0.639	0.877	1.750	1.614	1.110	0.819	0.757	0.509	0.622	0.383	0.386	0.564	0.492	0.909	0.846	0.847
0.000	0.546	0.304	0.000	1.059	0.546	0.386	0.376	0.401	0.868	0.714	0.964	1.626	0.787	0.583	1.030	1.067	0.906	0.706	0.973	1.430	1.751	1.278	0.787	0.803	0.610	0.938	0.511	0.587	0.573	0.549	0.982	0.922	0.891
0.000	0.502	0.000	0.000	1.044	0.557	0.315	0.349	0.413	0.917	0.699	0.944	1.663	0.854	0.505	1.191	1.050	1.036	0.676	0.904	1.420	1.811	1.312	0.709	0.724	0.647	0.860	0.555	0.511	0.808	0.545	0.936	0.752	0.767
0.000	0.000	0.000	0.000	1.394	0.000	0.000	0.430	0.321	0.410	0.000	0.752	1.283	0.791	0.000	0.462	0.475	0.352	0.000	0.398	0.710	1.342	0.710	1.071	0.000	0.000	0.000	0.000	0.000	0.424	0.909	0.000	0.693	0.831
0.000	0.000	0.000	0.000	1.197	0.668	0.495	0.502	0.436	0.669	0.592	0.819	1.260	0.600	0.530	0.958	1.020	0.824	0.000	0.833	1.215	1.477	0.984	0.647	0.679	0.491	0.977	0.443	0.638	0.747	0.612	0.988	0.877	0.940
0.000	0.396	0.000	0.000	1.282	0.644	0.430	0.531	0.361	0.460	0.000	0.694	0.985	0.487	0.509	0.818	1.099	0.732	0.686	0.754	1.233	1.314	0.592	0.627	0.488	0.350	0.629	0.457	0.000	0.359	0.560	1.113	1.007	1.060
0.000	0.000	0.000	0.000	1.649	0.855	0.518	0.630	0.407	0.460	0.000	0.770	1.013	0.508	0.427	0.795	1.016	0.719	0.543	0.801	1.386	1.477	0.625	0.411	0.000	0.000	0.552	0.000	0.000	0.000	0.678	1.353	1.193	1.267
0.000	0.000	0.000	0.000	1.514	0.644	0.000	0.463	0.000	0.429	0.000	0.440	0.832	0.000	0.444	0.741	1.068	0.649	0.652	0.816	1.251	1.254	0.514	0.413	0.000	0.000	0.674	0.000	0.433	0.000	0.581	1.144	0.985	1.036
0.000	0.464	0.259	0.000	1.274	0.836	0.615	0.680	0.460	0.551	0.588	0.847	1.081	0.560	0.612	0.814	1.048	0.769	0.724	0.880	1.143	1.409	0.771	0.689	0.000	0.000	0.635	0.454	0.469	0.000	0.540	1.018	0.911	0.926
0.000	0.446	0.337	0.000	1.248	0.624	0.444	0.560	0.461	0.562	0.593	0.802	0.999	0.514	0.591	0.823	1.176	0.794	0.799	0.978	1.322	1.427	0.788	0.637	0.530	0.287	0.754	0.490	0.526	0.000	0.583	1.084	0.952	0.999
0.000	0.232	0.243	0.000	1.458	0.754	0.568	0.639	0.424	0.450	0.448	0.725	1.058	0.509	0.420	0.737	0.901	0.644	0.586	0.743	1.208	1.320	0.713	0.587	0.582	0.359	0.581	0.466	0.454	0.297	0.616	1.107	0.952	1.089
0.000	0.000	0.000	0.000	1.658	0.735	0.486	0.845	0.313	0.336	0.000	0.589	0.600	0.323	0.323	0.391	0.505	0.296	0.000	0.370	0.735	0.774	0.000	0.406	0.000	0.000	0.406	0.315	0.363	0.000	0.636	1.270	1.055	1.256
0.000	0.000	0.000	0.000	1.388	0.704	0.480	0.477	0.396	0.500	0.521	0.801	0.979	0.480	0.527	0.887	1.098	0.717	0.611	0.847	1.210	1.363	0.586	0.679	0.440	0.000	0.729	0.351	0.460	0.345	0.663	1.200	1.031	1.059
0.000	0.000	0.280	0.000	1.292	0.633	0.413	0.442	0.398	0.600	0.549	0.832	1.325	0.638	0.649	0.905	0.987	0.776	0.684	0.855	1.338	1.715	1.069	0.698	0.644	0.362	0.814	0.445	0.454	0.457	0.595	1.170	1.003	1.041
0.000	0.000	0.504	0.000	1.278	0.568	0.345	0.425	0.322	0.640	0.458	1.016	1.202	0.000	0.690	0.848	0.898	0.610	0.781	0.781	1.204	1.518	0.822	0.913	0.551	0.000	0.348	0.369	0.798	0.408	0.415	1.040	0.901	0.941
0.000	0.000	0.000	0.000	1.194	0.727	0.513	0.540	0.390	0.552	0.575	0.802	0.985	0.000	0.617	1.000	1.382	0.886	0.880	0.897	1.299	1.379	0.822	0.777	0.671	0.000	0.891	0.520	0.562	0.000	0.498	0.972	0.886	0.836
0.000	0.000	0.362	0.000	1.825	0.958	0.715	0.894	0.421	0.290	0.000	0.555	0.337	0.335	0.000	0.000	0.281	0.000	0.000	0.000	0.335	0.369	0.000	0.379	0.000	0.000	0.350	0.429	0.446	0.000	0.579	1.291	1.114	1.290
0.000	0.000	0.000	0.000	1.114	0.000	0.000	0.000	0.000	0.000	0.326	0.000	0.501	0.000	0.000	0.628	1.053	0.000	0.614	0.697	0.868	0.917	0.409	0.977	0.000	0.000	0.586	0.306	0.316	0.000	0.538	1.382	1.142	1.255
0.000	0.000	0.274	0.000	1.344	0.726	0.515	0.596	0.394	0.408	0.000	0.770	0.895	0.423	0.427	0.753	1.097	0.638	0.600	0.729	1.018	1.177	0.492	0.551	0.367	0.000	0.624	0.394	0.394	0.000	0.651	1.199	1.032	1.052
0.000	0.000	0.364	0.000	1.402	0.640	0.441	0.543	0.000	0.393	0.418	0.748	0.854	0.000	0.444	0.825	1.120	0.666	0.556	0.703	1.156	1.331	0.489	0.593	0.000	0.000	0.699	0.384	0.438	0.000	0.608	1.184	1.039	1.036
0.000	0.000	0.319	0.000	1.558	0.634	0.425	0.504	0.347	0.415	0.356	0.678	0.846	0.434	0.434	0.640	0.605	0.492	0.409	0.540	0.883	1.170	0.440	0.493	0.308	0.000	0.663	0.383	0.451	0.274	0.434	1.169	1.014	1.109
0.000	0.000	0.424	0.000	1.458	0.776	0.513	0.648	0.364	0.513	0.410	0.694	0.877	0.441	0.457	0.739	1.022	0.631	0.604	0.679	0.955	1.207	0.516	0.556	0.000	0.000	0.668	0.384	0.475	0.272	0.664	1.322	1.126	1.186
0.000	0.000	0.000	0.000	1.164	0.597	0.401	0.399	0.302	0.323	0.323	0.633	0.725	0.334	0.454	0.668	0.965	0.575	0.511	0.711	0.866	1.107	0.454	0.440	0.000	0.000	0.586	0.326	0.302	0.000	0.580	0.939	0.829	0.808
0.000	0.000	0.000	0.000	1.557	0.757	0.462	0.530	0.400	0.427	0.340	0.645	0.954	0.450	0.536	0.700	0.946	0.560	0.481	0.601	0.987	1.247	0.546	0.375	0.000	0.000	0.713	0.380	0.465	0.000	0.542	1.107	0.960	0.971
0.000	0.404	0.000	0.000	1.425	0.638	0.470	0.494	0.356	0.470	0.437	0.715	0.906	0.473	0.599	0.759	0.888	0.608	0.546	0.673	0.958	1.188	0.542	0.464	0.000	0.000	0.710	0.394	0.456	0.315	0.657	1.158	0.994	1.024

203.06	204.60	206.61	207.61	208.31	213.99	215.95	217.32	219.70	223.06	225.02	232.82	275.75	286.91	291.02	394.09	398.20	401.56	418.49	422.18	431.29	434.26	435.80	438.20	447.87	464.19	483.84	486.76	491.96	496.91
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	1.396	1.444	1.530	0.000	1.190	0.838	0.972	0.000	0.610	0.512	0.696	0.377	0.489	0.375	0.650	0.810	0.000	0.577	0.000	0.000	1.281	0.000	0.000	0.649	0.649	1.291	1.561	0.000	0.857
0.000	1.538	1.618	1.729	0.000	1.306	0.915	1.055	0.000	0.717	0.613	0.815	0.000	0.418	0.000	0.682	0.846	0.554	0.630	0.000	0.929	1.123	0.000	0.918	0.670	0.670	0.953	0.938	0.796	0.740
0.000	1.591	1.646	1.789	0.000	1.381	0.971	1.153	0.511	0.680	0.439	0.839	0.000	0.376	0.299	0.657	0.794	0.452	0.558	0.600	0.716	0.967	0.000	0.000	0.593	0.593	0.915	0.944	0.000	0.493
0.000	1.637	1.692	1.874	0.000	1.427	1.033	1.212	0.566	0.737	0.000	0.891	0.000	0.000	0.000	0.443	0.548	0.000	0.424	0.407	0.476	0.594	0.487	0.403	0.000	0.000	0.580	0.538	0.000	0.375
0.731	1.630	1.724	1.915	0.000	1.416	1.037	1.193	0.531	0.730	0.389	0.882	0.000	0.348	0.305	0.723	0.703	0.402	0.575	0.620	0.908	1.024	0.000	0.000	0.646	0.646	1.089	1.125	0.000	0.667
0.715	1.316	1.356	1.418	0.000	1.170	0.833	0.933	0.426	0.590	0.518	0.708	0.348	0.311	0.418	0.000	1.030	0.752	0.680	0.000	1.080	0.000	1.297	0.000	0.789	0.789	1.156	1.328	0.000	0.734
0.601	1.194	1.271	1.285	0.000	0.983	0.657	0.703	0.000	0.503	0.000	0.714	0.000	0.507	0.444	0.771	0.811	0.528	0.552	0.000	1.233	1.342	0.000	0.000	0.734	0.734	1.441	1.710	0.000	0.821
0.000	1.167	1.266	1.332	0.000	1.019	0.000	0.781	0.000	0.645	0.560	0.639	0.000	0.000	0.482	0.668	0.794	0.000	0.532	0.000	0.844	1.122	1.087	0.000	0.000	0.000	1.412	1.647	0.724	0.520
0.666	1.416	1.464	1.586	0.000	1.097	0.000	0.869	0.305	0.598	0.552	0.609	0.328	0.360	0.448	0.705	0.811	0.507	0.578	0.456	0.929	1.135	1.078	0.000	0.621	0.621	1.238	1.557	0.828	0.703
0.000	1.574	1.693	1.858	0.000	1.430	0.000	1.214	0.496	0.742	0.000	0.893	0.000	0.000	0.000	0.588	0.650	0.375	0.484	0.537	0.563	0.749	0.000	0.000	0.447	0.447	0.766	0.722	0.466	0.000
0.000	1.524	1.624	1.839	0.000	1.406	0.000	1.210	0.000	0.719	0.343	0.942	0.000	0.276	0.000	0.509	0.716	0.436	0.537	0.410	0.680	0.849	0.000	0.000	0.405	0.405	0.716	0.684	0.593	0.467
0.000	1.305	1.415	1.434	0.000	1.178	0.819	0.893	0.421	0.589	0.568	0.785	0.332	0.540	0.000	0.675	0.852	0.575	0.671	0.733	1.161	1.411	0.000	0.000	0.869	0.869	1.421	0.000	1.095	0.000
0.000	1.694	1.869	2.154	0.000	1.524	1.082	1.364	0.574	0.819	0.406	0.987	0.000	0.294	0.000	0.487	0.675	0.428	0.591	0.000	0.707	0.865	0.000	0.000	0.571	0.571	0.751	0.000	0.654	0.538
0.000	1.640	1.738	1.863	0.000	1.459	1.052	1.236	0.607	0.677	0.483	0.873	0.000	0.343	0.000	0.598	0.723	0.391	0.573	0.585	0.681	0.855	0.696	0.000	0.449	0.449	0.000	0.000	0.526	0.407
0.000	1.267	1.376	1.428	0.000	1.083	0.790	0.878	0.441	0.458	0.000	0.795	0.388	0.542	0.000	0.823	0.839	0.000	0.613	0.695	0.000	1.292	0.000	0.000	0.799	0.799	1.370	1.400	1.021	0.949
0.000	1.730	0.000	2.164	0.000	1.518	0.000	1.395	0.662	0.909	0.000	1.021	0.000	0.000	0.000	0.348	0.416	0.000	0.345	0.000	0.342	0.392	0.000	0.345	0.000	0.000	0.334	0.000	0.000	0.000
0.402	1.600	1.738	1.875	0.000	1.375	0.000	1.179	0.550	0.738	0.000	0.834	0.000	0.000	0.000	0.503	0.505	0.000	0.372	0.375	0.412	0.451	0.000	0.000	0.000	0.000	0.533	0.555	0.000	0.000
0.571	1.493	1.772	1.440	0.000	1.500	1.133	0.000	0.000	1.175	0.000	0.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	1.700	1.833	1.932	0.000	1.480	1.072	1.182	0.000	0.736	0.000	0.814	0.000	0.000	0.000	0.523	0.546	0.000	0.412	0.388	0.466	0.466	0.441	0.415	0.351	0.351	0.523	0.555	0.000	0.000
0.688	1.215	1.315	1.295	0.000	1.097	0.782	0.832	0.000	0.588	0.478	0.525	0.354	0.618	0.555	0.565	0.811	0.590	0.559	0.640	0.000	1.413	1.379	0.000	0.740	0.740	1.378	0.000	0.898	1.095
0.000	1.197	1.380	1.462	0.000	1.103	0.774	0.906	0.454	0.679	0.547	0.596	0.301	0.632	0.000	0.674	0.764	0.513	0.000	0.785	0.000	1.402	1.408	1.361	0.847	0.847	1.566	1.476	0.979	1.148
0.000	1.442	1.639	1.719	0.000	1.201	0.862	0.998	0.415	0.692	0.415	0.646	0.308	0.659	0.000	0.693	0.716	0.442	0.000	0.830	0.000	1.312	1.240	0.000	0.817	0.817	1.325	0.000	0.929	1.137
0.000	1.590	1.698	1.785	0.000	1.411	1.018	1.198	0.565	0.565	0.489	0.798	0.000	0.000	0.000	0.565	0.631	0.379	0.000	0.565	0.000	0.691	0.866	0.798	0.437	0.437	0.798	0.399	0.399	0.528
0.000	1.418	1.522	1.576	0.000	1.271	0.000	1.026	0.000	0.639	0.368	0.723	0.000	0.350	0.000	0.742	0.819	0.471	0.583	0.678	0.832	1.084	0.000	0.000	0.537	0.537	1.213	1.135	0.000	0.514
0.000	1.386	1.494	1.540	0.000	1.179	0.838	0.895	0.000	0.611	0.560	0.659	0.422	0.440	0.000	0.773	1.011	0.705	0.721	0.653	1.152	1.437	0.000	0.000	0.827	0.827	1.319	1.344	0.000	0.899
0.642	1.153	1.198	1.078	0.000	1.001	0.681	0.651	0.000	0.489	0.514	0.688	0.486	0.443	0.000	0.931	1.150	0.792	0.000	0.868	0.000	1.655	0.000	0.000	1.005	1.005	2.256	2.111	1.124	0.976
0.722	1.471	1.558	1.686	0.000	1.265	0.897	1.012	0.000	0.645	0.460	0.713	0.394	0.366	0.400	0.689	0.827	0.524	0.543	0.553	0.977	1.251	0.000	0.000	0.675	0.675	1.178	1.204	0.000	0.764
0.806	1.407	1.542	1.559	0.000	1.173	0.834	0.952	0.000	0.616	0.629	0.682	0.380	0.418	0.000	0.813	1.003	0.723	0.634	0.619	1.105	1.347	0.000	0.000	0.806	0.806	1.324	1.289	0.873	0.867
0.000	1.474	1.666	1.787	0.000	1.295	0.986	1.121	0.550	0.697	0.479	0.800	0.287	0.298	0.381	0.799	0.864	0.536	0.620	0.618	0.982	1.200	1.091	0.000	0.873	0.873	1.211	1.347	0.722	0.726
0.000	1.151	1.370	1.257	0.000	0.996	0.671	0.731	0.000	0.480	0.474	0.488	0.400	0.523	0.500	0.914	1.044	0.710	0.633	0.561	0.000	1.467	0.000	0.000	0.824	0.824	0.000	1.600	0.938	1.040
0.000	1.322	1.448	1.564	0.000	1.183	0.836	0.935	0.000	0.591	0.418	0.782	0.000	0.000	0.000	0.620	1.066	0.836	0.793	0.620	0.000	1.478	0.000	0.000	0.591	0.591	0.000	1.322	0.000	0.836
0.696	1.095	1.269	0.000	0.000	0.793	0.000	0.658	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.828	0.891	0.741	0.000	0.000	0.927	1.121	1.085	0.000	0.000	0.000	1.054	1.202	0.000	0.000
0.000	1.239	1.229	1.414	0.000	1.623	1.018	1.231	0.000	0.585	0.000	0.999	0.000	0.382	0.411	0.525	0.770	0.540	0.640	0.501	0.760	1.056	0.000	0.000	0.525	0.525	1.137	1.179	0.000	0.763
0.576	1.316	1.426	1.435	0.000	1.258	0.885	0.961	0.000	0.606	0.639	0.706	0.292	0.389	0.426	0.692	0.811	0.500	0.641	0.639	0.838	1.049	0.000	0.000	0.692	0.692	1.069	1.028	0.760	0.751
0.690	1.376	1.440	1.502	0.000	1.232	0.877	1.016	0.428	0.789	0.391	0.724	0.289	0.343	0.339	0.644	0.842	0.644	0.628	0.487	0.000	1.127	0.000	0.000	0.681	0.681	1.178	1.222	0.000	0.734
0.741	1.354	1.482	1.510	0.000	1.118	0.786	0.820	0.430	0.669	0.495	0.691	0.307	0.437	0.396	0.801	1.020	0.683	0.754	0.666	0.000	1.219	1.224	0.000	0.682	0.682	1.475	1.555	0.979	0.818
0.657	1.350	1.506	1.516	0.000	1.183	0.806	0.914	0.402	0.782	0.428	0.628	0.329	0.376	0.399	0.764	0.737	0.504	0.523	0.406	0.000	1.196	0.000	1.172	0.577	0.577	1.325	1.379	0.000	0.941
0.000	1.296	1.375	1.409	0.000	1.167	0.778	0.877	0.379	0.742	0.563	0.594	0.000	0.438	0.435	0.606	0.658	0.408	0.504	0.508	0.000	0.996	0.988	0.942	0.465	0.465	0.000	1.378	0.000	0.828
0.655	1.374	1.474	1.596	0.000	1.121	0.758	0.875	0.354	0.675	0.445	0.600	0.000	0.465	0.411	0.626	0.721	0.457	0.558	0.543	0.000	1.070	0.952	0.000	0.647	0.647	1.258	1.356	0.000	0.876
0.000	1.712	0.000	2.041	0.000	1.489	0.000	1.350	0.000	0.808	0.000	0.925	0.000	0.000	0.000	0.327	0.456	0.000	0.390	0.343	0.375	0.366	0.381	0.000	0.280	0.280	0.400	0.000	0.000	0.000
0.000	1.798	1.958	2.220	0.000	1.537	0.000	1.393	0.637	0.876	0.000	0.975	0.000	0.000	0.000	0.000	0.270	0.000	0.270	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	1.813	2.035	2.076	0.000	1.620	1.202	1.337	0.000	0.778	0.000	0.813	0.000	0.000	0.000	0.345	0.369	0.000	0.337	0.000	0.321	0.350	0.000	0.000	0.000	0.000	0.352	0.390	0.000	0.000
0.000	1.729	1.879	2.084	0.000	1.581	1.130	1.331	0.000	0.800	0.306	0.908	0.000	0.000	0.000	0.505	0.522	0.293	0.443	0.364	0.493	0.496	0.000	0.355	0.316	0.316	0.513	0.496	0.339	0.000
0.000	1.823	1.953	2.090	0.000	1.525	1.095	1.265	0.000	0.765	0.000	0.812	0.000	0.000	0.000	0.360	0.388	0.000	0.383	0.383	0.453	0.416	0.000	0.000	0.000	0.000	0.447	0.442	0.000	0.000
0.000	1.602	1.733	1.882	0.000	1.346	0.953	1.131	0.542	0.704	0.445	0.717	0.000	0.320	0.000	0.695	0.717	0.383	0.514	0.568	0.820	0.992	0.000	0.910	0.653	0.653	0.899	0.886	0.630	0.623
0.000	1.796	1.917	2.299	0.000	1.660	1.227	1.541	0.787	0.901	0.000	1.157	0.000	0.000	0.000	0.482	1.273	0.000	0.326	0.000	0.328	0.466	0.000	0.373	0.000	0.000	0.000	0.000	0.000	0.323
0.000	1.810	1.939	2.307	0.000	1.594	1.260	1.543	0.718	0.891	0.000	1.195	0.000	0.000	0.000	0.345	0.398	0.356	0.282	0.000	0.000	0.267	0.000	0.000	0.000	0.000	0.436	0.436	0.000	0.345
0.000	0.000	1.542	0.000	0.000	0.823	0.836	0.000	0.000	0.430	0.000	0.430	0.000	0.000	0.000	0.441	0.411	0.000	0.000	0.000	0.554	0.657	0.713	0.701	0.486	0.486	0.664	0.000	0.741	0.000
0.800	1.234	1.392	1.297	0.000	1.001	0.711	0.688	0.000	0.552	0.505	0.583	0.329	0.521	0.000	0.651	0.817	0.534	0.606	0.739	1.096	1.364	0.000	1.299	0.879	0.879	1.471	0.000	1.114	1.041
0.813	1.262	1.351	1.382	0.000	1.054	0.792	0.837	0.000	0.682	0.429	0.554	0.000	0.433	0.000	0.000	0.965	0.721	0.675	0.572	0.000	1.391	0.000	0.000	0.000	0.000	1.523	1.464	1.070	0.999
0.817	1.221	1.325	1.203	0.000	1.052	0.756	0.715	0.000	0.553	0.506	0.500	0.357	0.543	0.586	0.809	1.130	0.845	0.764	0.664	1.115	1.414	0.000	0.000	0.896	0.896	1.319	1.320	0.997	1.062
0.844	1.242	1.284	1.397	0.000	1.333	0.912	0.968	0.626	0.739	0.512	0.717	0.343	0.582	0.711	0.590	0.921	0.748	0.757	0.512	1.008	0.000	1.416	0.000	0.000	0.000	1.249	1.388	0.000	1.304
0.804	1.318	1.412	1.268	0.000	1.005	0.726	0.689	0.362	0.574	0.692	0.438	0.416	0.462	0.000	0.786	1.268	0.988	0.806	0.624	1.154	0.000	1.469	0.000	0.799	0.799	1.250	1.403	0.937	1.010
0.796	1.260	1.344	1.292	0.000	1.042	0.719	0.752	0.387	0.841	0.520	0.451	0.408	0.629	0.883	0.588	0.973	0.759	0.647	0.560	1.084	1.425	0.000	0.000	0.768	0.768	1.279	1.375	0.999	1.342
0.646	1.419	1.440	1.491	0.000	1.313	0.914	1.047	0.442	0.584	0.000	0.717	0.465	0.406	0.000	0.859	1.044	0.716	0.763	0.631	0.000	1.367	1.387	0.000	0.741	0.741	1.183	1.223	0.000	0.767
0.612	1.150	1.182	1.186	0.000	0.922	0.602	0.636	0.000	0.535	0.000	0.474	0.000	0.000	0.354	0.683	0.926	0.774	0.648	0.296	0.000	1.382	1.406	0.000	0.882	0.882	0.000	1.263	0.000	0.691
0.783	1.209	1.269	1.228	0.000	1.002	0.698	0.739	0.000	0.589	0.000	0.460	0.000	0.251	0.000	0.947	1.280	1.183	0.915	0.747	0.000	1.367	1.545	0.000	0.834	0.834	1.439	0.000	0.000	0.718
0.718	1.643	1.560	1.503	0.000	1.306	0.888	0.988	0.452	0.710	0.417	0.713	0.000	0.398	0.374	0.829	0.928	0.564	0.784	0.632	0.772	0.000	0.878	0.728	0.509	0.509	0.852	0.797	0.509	0.558
0.733	1.501	1.514	1.591	0.000	1.151	0.828	0.884	0.469	0.658	0.466	0.532	0.322	0.370	0.000	0.710	0.984	0.717	0.755	0.487	0.937	0.000	1.219	0.000	0.689	0.689	1.114	1.221	0.000	0.857
0.000	1.428	1.525	1.564	0.000	1.302	0.892	0.948	0.488	0.650	0.463	0.679	0.344	0.531	0.517	0.614	0.647	0.368	0.521	0.553	0.858	1.049	1.034	0.000	0.526	0.526	1.025	0.948	0.698	0.876
0.642	1.349	1.372	1.345	0.000	1.051	0.693	0.744	0.289	0.657	0.264	0.460	0.343	0.526	0.672	0.551	1.007	0.767	0.773	0.000	0.916	1.357	1.365	0.000	0.000	0.000	1.216	1.247	0.817	1.106
0.730	1.418	1.471	1.556	0.000	1.226	0.822	0.976	0.402	0.845	0.496	0.620	0.000	0.405	0.472	0.797	1.077	0.920	0.890	0.602	0.000	1.259	1.382	0.000	0.890	0.890	1.152	1.193	0.622	0.871
0.720	1.460	1.519	1.570	0.000	1.200	0.863	0.929	0.482	0.707	0.396	0.620	0.316	0.431	0.505	0.628	0.888	0.624	0.659	0.517	0.920	1.248	0.000	0.000	0.594	0.594	1.302	1.335	0.857	0.898
0.685	1.395	1.495	1.582	0.000	1.119	0.882	0.911	0.000	0.755	0.000	0.608	0.000	0.324	0.301	0.635	0.711	0.551	0.559	0.414	0.695	1.058	1.065	0.000	0.651	0.651	0.000	1.374	0.000	0.661
0.668	1.324	1.368	1.428	0.000	1.024	0.742	0.753	0.000	0.564	0.319	0.531	0.356	0.324	1.018	1.018	0.991	0.641	0.704	0.634	0.000	1.281	1.230	0.000	0.804	0.804	1.550	2.037	0.000	0.729
0.720	1.344	1.456	1.515	0.000	1.100	0.807	0.871	0.442	0.657	0.000	0.597	0.000	0.403	0.425	0.903	0.886	0.601	0.624	0.531	0.000	1.207	1.167	0.000	0.000	0.000	1.225	1.398	0.000	0.890
0.621	1.342	1.350	1.428	0.000	1.063	0.725	0.765	0.000	0.582	0.000	0.518	0.383	0.000	0.323	1.019	0.977	0.642	0.696	0.583	0.000	1.293	0.000	0.000	0.000	0.000	0.000	2.106	0.000	0.733
0.424	1.741	1.436	2.008	0.000	2.452	1.497	1.904	1.079	0.711	0.000	1.377	0.000	0.000	0.000	0.492	0.571	0.355	0.450	0.632	0.373	0.531	0.531	0.000	0.324	0.324	0.000	0.681	0.000	0.000
0.000	1.418	1.532	1.697	0.000	1.189	0.823	0.947	0.000	0.826	0.431	0.656	0.270	0.355	0.000	0.787	0.811	0.543	0.639	0.521	0.000	1.116	1.116	1.123	0.698	0.698	1.241	1.330	0.000	0.721
0.000	1.658	1.727	1.959	0.000	1.284	0.894	1.054	0.499	0.724	0.000	0.678	0.280	0.411	0.328	0.346	0.603	0.305	0.370	0.505	0.760	0.939	0.000	0.985	0.000	0.000	0.947	0.000	0.000	0.694
0.000	1.924	1.911	2.218	0.000	1.563	1.127	1.332	0.000	0.830	0.000	0.865	0.000	0.567	0.000	0.407	0.575	0.394	0.364	0.515	0.705	0.863	0.814	0.000	0.000	0.000	0.000	0.997	0.000	0.705
0.000	1.595	1.735	1.955	0.000	1.267	0.818	1.010	0.000	0.741	0.000	0.713	0.000	0.413	0.000	0.409	0.598	0.409	0.366	0.511	0.704	0.810	0.842	0.000	0.000	0.000	0.978	0.942	0.504	0.561
0.805	1.493	1.577	1.723	0.000	1.203	0.864	0.977	0.000	0.717	0.281	0.636	0.250	0.426	0.000	0.310	0.598	0.388	0.426	0.390	0.835	0.957	0.964	0.000	0.000	0.000	0.973	0.999	0.641	0.743
0.757	1.476	1.555	1.716	0.000	1.254	0.903	1.027	0.519	0.665	0.380	0.623	0.269	0.384	0.373	0.456	0.625	0.362	0.396	0.478	0.915	1.034	1.009	0.000	0.000	0.000	0.000	1.077	0.677	0.784
0.000	1.550	1.667	1.978	0.000	1.305	0.978	1.143	0.633	0.786	0.374	0.858	0.269	0.000	0.315	0.414	0.760	0.515	0.579	0.499	0.758	0.000	1.002	1.049	0.398	0.398	0.948	0.895	0.656	0.654
0.000	1.718	1.865	2.250	0.000	1.544	1.160	1.463	0.799	0.872	1.040	0.000	0.000	0.000	0.000	0.321	0.418	0.000	0.436	0.388	0.397	0.476	0.452	0.452	0.000	0.000	0.548	0.000	0.000	0.321
0.000	1.588	1.632	1.684	0.000	1.318	0.947	1.042	0.000	0.690	0.312	0.643	0.000	0.366	0.331	0.419	0.604	0.308	0.474	0.600	0.643	0.781	0.786	0.819	0.321	0.321	0.904	0.000	0.000	0.648
0.000	1.621	1.628	1.720	0.000	1.342	0.942	1.056	0.518	0.829	0.383	0.644	0.000	0.438	0.333	0.315	0.540	0.365	0.431	0.491	0.746	0.978	0.000	1.002	0.000	0.000	0.000	0.000	0.000	0.680
0.000	1.467	1.505	1.600	0.000	1.214	0.846	0.979	0.000	0.728	0.404	0.664	0.291	0.291	0.000	0.499	0.548	0.334	0.391	0.522	0.751	0.923	0.000	0.904	0.345	0.345	1.040	0.000	0.000	0.658
0.644	1.359	1.427	1.510	0.000	1.043	0.761	0.789	0.000	0.589	0.404	0.518	0.364	0.422	0.000	0.376	0.573	0.359	0.303	0.462	0.859	1.016	1.016	1.083	0.468	0.468	1.031	0.000	0.000	0.764
0.000	1.844	1.968	2.318	0.000	1.513	1.172	1.396	0.788	0.918	0.000	0.993	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.249	0.000	0.000
0.473	1.229	1.068	1.363	0.000	2.177	1.179	1.339	0.000	0.581	0.354	1.181	0.000	0.298	0.000	0.345	0.465	0.282	0.000	0.352	0.426	0.458	0.492	0.547	0.288	0.288	0.794	0.000	0.354	0.385
0.000	1.629	1.687	1.796	0.000	1.342	0.894	1.054	0.000	0.680	0.376	0.691	0.239	0.331	0.284	0.389	0.000	0.000	0.317	0.000	0.604	0.692	0.000	0.718	0.371	0.371	0.000	0.000	0.551	0.569
0.000	1.588	1.636	1.703	0.000	1.320	0.967	1.032	0.000	0.692	0.000	0.685	0.000	0.430	0.000	0.447	0.519	0.000	0.360	0.360	0.624	0.748	0.000	0.751	0.000	0.000	0.734	0.764	0.447	0.536
0.000	1.718	1.784	1.904	0.000	1.447	1.011	1.213	0.000	0.770	0.285	0.802	0.000	0.000	0.000	0.437	0.512	0.323	0.399	0.261	0.420	0.523	0.526	0.497	0.000	0.000	0.682	0.724	0.000	0.333
0.000	1.773	1.823	2.045	0.000	1.511	1.024	1.231	0.000	0.828	0.407	0.817	0.000	0.334	0.000	0.000	0.446	0.266	0.330	0.404	0.507	0.622	0.000	0.635	0.000	0.000	0.690	0.000	0.000	0.489
0.603	1.315	1.318	1.390	0.000	1.090	0.844	0.866	0.000	0.676	0.427	0.524	0.000	0.000	0.000	0.302	0.358	0.270	0.000	0.302	0.427	0.605	0.676	0.000	0.000	0.000	0.740	0.000	0.000	0.524
0.000	1.597	1.634	1.765	0.000	1.302	0.000	0.997	0.000	0.775	0.000	0.692	0.000	0.000	0.000	0.350	0.481	0.000	0.386	0.375	0.462	0.000	0.626	0.657	0.000	0.000	0.000	0.000	0.000	0.398
0.000	1.620	1.643	1.753	0.000	1.293	0.926	0.993	0.000	0.776	0.386	0.641	0.000	0.000	0.335	0.403	0.463	0.000	0.363	0.435	0.567	0.666	0.000	0.618	0.347	0.347	0.932	0.000	0.000	0.597

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Soil	Year	Study Site	Fence	Treatment	Veg type	Microb. Biomass	Root Biomass	Soil Temp	Soil Moisture	C (%)	N (%)	P (mg/kg)	50.16	50.98	53.10	55.12	56.74	59.47	60.15	62.21	63.75	64.81	66.98
Mineral	2009	1	1	1	1	1147	394.7	14.18	36.90	14.30	0.70	11.62	0.927	0.757	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.770	0.862
Mineral	2009	1	1	2	1	987	436.8	14.64	37.40	13.00	0.44	8.64	1.108	0.970	0.000	0.000	0.000	0.737	1.334	0.615	0.696	0.734	0.832
Mineral	2009	1	1	3	1	803	557.8	14.58	44.95	12.90	0.38	8.10	1.608	1.416	0.000	0.000	0.000	0.000	1.781	1.028	0.862	0.859	1.500
Mineral	2009	1	1	4	1	1095	405.2	14.36	44.45	13.90	0.62	11.64	1.243	1.082	0.000	0.000	0.000	0.811	1.463	0.637	0.643	0.830	0.900
Mineral	2009	1	1	5	1	NA	431.5	13.66	39.05	15.30	0.87	14.84	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mineral	2009	1	2	1	2	1203	1457.7	12.95	23.28	17.20	0.62	8.18	1.303	0.873	0.000	0.000	0.000	0.000	1.083	0.000	0.819	0.960	1.512
Mineral	2009	1	2	2	2	1245	884.1	12.70	23.90	14.10	0.72	8.36	1.737	1.405	0.000	0.527	0.000	1.152	1.626	1.212	0.958	1.164	1.376
Mineral	2009	1	2	3	2	1669	1326.1	12.60	18.92	14.20	0.82	12.46	1.567	1.405	0.000	0.000	0.000	0.984	1.495	0.925	1.013	1.126	1.264
Mineral	2009	1	2	4	2	1383	878.8	12.28	21.87	13.20	0.52	9.12	1.745	1.582	0.000	0.000	0.000	0.944	1.760	0.000	0.999	1.014	1.579
Mineral	2009	1	2	5	1	1662	599.9	11.76	27.27	14.80	0.75	9.84	0.877	0.921	0.000	0.000	0.000	0.793	1.108	0.981	1.283	1.358	1.202
Mineral	2009	1	3	1	1	922	584.1	14.04	43.04	12.25	0.27	8.08	1.867	1.544	0.000	0.000	0.000	1.192	0.000	0.744	1.018	1.003	1.420
Mineral	2009	1	3	2	1	1854	373.6	14.20	33.68	17.70	1.18	17.54	1.267	1.511	0.000	0.000	0.000	1.226	1.434	1.259	1.734	2.019	1.708
Mineral	2009	1	3	3	1	1085	394.7	14.78	48.15	13.60	0.48	9.56	1.107	0.964	0.000	0.000	0.000	0.799	1.182	0.673	0.784	0.848	0.801
Mineral	2009	1	3	4	1	1451	684.1	14.50	39.65	16.20	0.96	12.28	0.000	0.998	0.000	0.000	0.000	0.933	0.977	0.955	1.232	1.449	1.376
Mineral	2009	1	3	5	1	1526	352.6	13.84	46.30	15.00	0.74	13.48	1.462	1.370	0.000	0.000	0.000	0.964	1.543	0.719	0.809	1.010	1.216
Mineral	2009	1	4	1	2	1900	731.5	12.88	43.25	13.40	0.89	12.80	1.648	1.521	0.000	0.000	0.000	0.000	1.648	0.000	0.925	0.978	1.173
Mineral	2009	1	4	2	2	1792	1373.5	13.06	25.60	17.80	0.86	14.66	1.048	0.992	0.000	0.000	0.000	0.753	1.041	0.528	0.851	0.808	0.716
Mineral	2009	1	4	3	2	819	478.9	12.58	32.73	11.40	0.15	4.22	1.449	1.299	0.000	0.000	0.000	0.803	1.326	0.767	0.829	0.934	0.969
Mineral	2009	1	4	4	2	2069	694.6	13.04	29.73	15.90	0.97	17.74	1.797	1.489	0.000	0.000	0.000	1.056	1.638	0.875	1.020	1.202	1.681
Mineral	2009	1	4	5	2	2734	694.6	12.60	28.27	13.80	0.34	6.86	1.342	1.142	0.000	0.000	0.000	0.695	0.000	0.630	0.865	0.834	0.976
Mineral	2009	2	5	1	1	640	452.6	14.94	56.15	9.86	0.29	4.62	1.372	1.445	0.000	0.000	0.000	1.328	1.561	1.389	1.955	1.901	0.918
Mineral	2009	2	5	2	1	1029	321.0	13.34	41.95	10.60	0.59	9.04	1.148	1.036	0.000	0.000	0.000	0.705	1.279	0.780	0.712	0.839	0.960
Mineral	2009	2	5	3	1	851	278.9	14.20	63.00	11.20	0.50	8.90	1.230	1.133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.883	0.989
Mineral	2009	2	5	4	1	694	726.2	13.98	61.50	10.60	0.41	5.86	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mineral	2009	2	5	5	1	888	810.4	14.28	52.95	10.70	0.30	6.20	1.499	0.899	0.000	0.000	0.000	0.574	0.762	0.529	1.161	1.145	2.042
Mineral	2009	2	6	1	2	1655	1426.1	15.68	14.05	14.70	0.72	11.48	1.056	0.913	0.000	0.000	0.000	0.595	1.255	0.766	0.659	0.784	0.865
Mineral	2009	2	6	2	2	1452	2362.8	13.62	40.36	15.40	0.69	13.88	1.163	1.012	0.000	0.000	0.000	0.000	1.243	0.767	0.737	0.740	0.911
Mineral	2009	2	6	3	2	1357	999.8	13.68	28.85	14.80	0.45	8.04	1.017	0.897	0.000	0.000	0.000	0.630	1.146	0.622	0.614	0.748	0.828
Mineral	2009	2	6	4	2	1502	915.6	13.22	27.35	13.90	0.43	9.36	0.946	0.840	0.000	0.000	0.000	0.687	1.183	0.675	0.000	0.767	0.760
Mineral	2009	2	6	5	2	1436	894.6	13.48	41.08	14.90	0.42	8.14	0.965	0.918	0.000	0.000	0.000	0.000	1.119	0.561	0.751	0.702	0.851
Mineral	2009	3	7	1	1	1574	1157.7	11.62	44.25	8.91	0.64	8.38	0.000	0.598	0.000	0.000	0.000	0.627	0.869	0.856	0.965	0.979	0.828
Mineral	2009	3	7	2	1	735	720.9	12.78	35.35	10.70	0.17	4.34	1.450	1.264	0.000	0.000	0.000	0.938	1.655	0.759	0.841	0.905	1.240
Mineral	2009	3	7	3	1	922	1289.3	11.96	45.27	10.20	0.33	5.64	1.240	1.074	0.000	0.000	0.000	0.746	1.628	0.817	0.786	0.792	1.050
Mineral	2009	3	7	4	1	1087	1068.2	12.24	42.13	9.95	0.32	5.60	1.455	1.321	0.000	0.000	0.000	0.802	0.000	0.918	0.904	0.897	1.307
Mineral	2009	3	7	5	1	739	705.1	11.88	53.73	8.92	0.15	5.28	1.430	1.295	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.031	1.205
Mineral	2009	3	8	1	2	754	494.7	12.36	53.33	7.05	0.49	6.28	0.591	0.000	0.000	0.000	0.000	0.000	1.086	0.633	0.000	0.000	0.000
Mineral	2009	3	8	2	2	1126	2131.2	11.64	54.60	6.85	0.59	4.32	0.752	0.798	0.000	0.000	0.000	0.844	1.068	1.006	1.171	1.170	1.177
Mineral	2009	3	8	3	2	1251	478.9	11.22	53.93	5.29	0.55	3.66	0.950	0.956	0.000	0.000	0.000	0.731	1.302	1.065	1.350	1.384	1.282
Mineral	2009	3	8	4	2	762	363.1	10.94	55.07	7.34	0.50	6.46	1.159	1.144	0.000	0.000	0.000	0.000	1.682	0.688	0.881	0.857	1.332
Mineral	2009	3	8	5	2	1097	284.2	11.54	54.20	6.08	0.61	4.50	1.158	0.998	0.000	0.000	0.000	0.741	1.315	0.679	0.657	0.827	1.130
Mineral	2009	4	9	1	1	1271	447.3	15.66	21.34	17.90	0.61	12.00	1.618	1.612	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mineral	2009	4	9	2	1	2144	310.5	15.34	31.13	21.40	1.24	22.60	1.282	1.399	0.000	0.000	0.000	1.319	1.477	1.434	1.795	2.085	1.660
Mineral	2009	4	9	3	1	1419	815.7	15.98	16.00	16.60	0.63	12.90	1.204	1.158	0.000	0.000	0.000	0.000	2.205	0.000	0.000	0.000	0.783
Mineral	2009	4	9	4	1	1202	952.5	15.30	19.53	14.70	0.30	7.88	0.905	0.759	0.000	0.000	0.000	0.000	2.445	0.000	0.000	0.000	0.000
Mineral	2009	4	9	5	1	806	331.5	15.48	32.65	14.70	0.30	7.14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mineral	2009	4	10	1	2	1376	768.3	13.88	15.33	15.60	0.73	20.80	1.189	1.120	0.000	0.000	0.000	0.000	1.810	0.939	0.680	0.654	0.990
Mineral	2009	4	10	2	2	1426	794.6	14.04	18.07	14.80	0.50	11.36	1.262	1.362	0.000	0.000	0.000	1.109	1.326	1.049	1.744	1.847	1.741
Mineral	2009	4	10	3	2	1027	999.8	12.86	22.00	13.90	0.27	7.54	1.897	1.689	0.000	0.000	0.000	1.131	0.000	1.406	1.201	0.000	1.943
Mineral	2009	4	10	4	2	1276	805.1	13.66	20.00	17.20	0.80	16.84	0.000	1.339	0.000	0.000	0.000	1.120	1.473	1.125	1.728	1.751	1.699
Mineral	2009	4	10	5	2	671	673.6	12.24	31.13	10.30	0.13	4.84	0.927	0.932	0.000	0.000	0.000	0.841	1.149	0.896	1.328	1.338	1.210
Mineral	2009	5	11	1	1	865	699.9	15.70	31.40	13.10	0.50	16.68	1.589	1.396	0.000	0.639	0.000	0.000	2.215	1.157	1.154	0.775	1.846
Mineral	2009	5	11	2	1	798	799.9	16.62	14.20	8.92	0.46	5.34	0.000	0.851	0.000	0.000	0.000	0.899	1.056	1.073	1.291	1.401	1.178
Mineral	2009	5	11	3	1	803	568.3	16.18	17.67	8.07	0.48	6.54	1.107	1.035	0.000	0.000	0.000	0.997	1.463	1.180	0.889	0.933	1.369
Mineral	2009	5	11	4	1	1032	573.6	16.86	11.47	7.94	0.57	7.16	1.183	1.346	0.000	0.000	0.000	1.338	1.546	1.357	1.765	1.694	2.214
Mineral	2009	5	11	5	1	1310	347.3	15.84	19.67	7.93	0.66	9.48	1.633	1.461	0.000	0.000	0.000	0.000	2.451	1.221	1.185	0.854	1.777
Mineral	2009	5	12	1	2	1333	531.5	16.56	16.40	6.98	0.57	7.28	1.409	1.440	0.000	0.000	0.000	1.360	1.603	1.434	1.762	1.844	1.538
Mineral	2009	5	12	2	2	1005	778.8	16.76	17.80	5.82	0.44	6.40	1.262	1.230	0.000	0.000	0.000	1.006	1.380	1.281	1.644	1.780	1.581
Mineral	2009	5	12	3	2	1055	789.3	15.88	20.87	7.21	0.39	5.26	1.298	1.313	0.000	0.000	0.000	0.960	1.609	1.230	1.750	1.724	1.491
Mineral	2009	5	12	4	2	936	405.2	16.84	17.80	11.60	0.45	9.24	1.379	1.455	0.000	0.000	0.000	1.286	1.669	1.370	1.815	1.842	1.765
Mineral	2009	5	12	5	2	1181	468.3	16.36	25.60	10.80	0.58	10.32	1.383	1.325	0.000	0.000	0.000	0.000	0.000	1.032	0.954	0.000	1.239
Mineral	2009	5	13	1	1	1380	526.2	14.50	20.40	12.70	0.77	12.52	1.077	0.978	0.000	0.000	0.000	0.000	1.612	1.015	0.908	0.776	1.260
Mineral	2009	5	13	2	1	981	742.0	15.48	22.47	8.70	0.46	7.02	1.377	1.412	0.000	0.000	0.733	1.064	3.555	0.000	1.650	1.634	1.536
Mineral	2009	5	13	3	1	951	547.3	15.32	20.67	7.74	0.38	5.24	1.141	1.294	0.000	0.000	0.000	0.000	4.146	0.000	1.342	1.522	1.445
Mineral	2009	5	13	4	1	899	673.6	14.40	19.93	9.68	0.54	5.96	0.000	1.014	0.000	0.000	0.000	1.026	1.202	1.188	1.511	1.413	1.426
Mineral	2009	5	13	5	1	1075	847.2	14.08	28.87	8.33	0.62	9.12	0.000	0.663	0.000	0.000	0.000	0.592	0.776	1.261	0.993	1.108	0.984
Mineral	2009	5	14	1	2	1025	705.1	13.56	29.47	8.17	0.35	4.10	0.695	0.000	0.000	0.000	0.000	0.576	1.788	0.924	1.053	1.096	1.031
Mineral	2009	5	14	2	2	964	768.3	12.42	24.67	5.36	0.32	2.92	1.021	1.105	0.426	0.000	0.480	0.000	1.569	1.094	1.530	1.485	1.637
Mineral	2009	5	14	3	2	1087	668.3	12.16	22.20	5.69	0.44	4.40	0.799	0.907	0.388	0.000	0.401	0.000	1.813	1.022	1.251	1.286	1.165
Mineral	2009	5	14	4	2	1067	542.0	11.48	22.07	7.73	0.57	5.84	0.716	0.791	0.000	0.000	0.000	0.000	1.516	1.010	1.089	1.022	1.044
Mineral	2009	5	14	5	2	830	689.4	12.36	26.87	9.48	0.32	3.40	1.056	1.157	0.391	0.000	0.448	0.000	1.813	1.047	1.521	1.470	1.634
Mineral	2009	6	15	1	1	806	399.9	12.66	51.62	15.00	0.54	9.28	2.725	1.459	0.000	0.000	0.857	0.000	0.000	0.000	0.000	2.278	0.763
Mineral	2009	6	15	2	1	974	326.3	12.24	54.33	22.30	1.17	40.00	0.579	0.640	0.000	0.000	0.000	0.000	1.361	1.004	1.008	0.928	0.872
Mineral	2009	6	15	3	1	663	563.1	13.96	53.60	16.60	0.45	30.00	0.558	0.000	0.000	0.000	0.000	0.000	1.919	1.136	0.958	1.036	0.954
Mineral	2009	6	15	4	1	686	536.8	12.68	49.36	16.90	0.48	11.12	0.601	0.000	0.000	0.000	0.000	0.525	1.850	0.000	0.864	0.913	0.978
Mineral	2009	6	15	5	1	450	484.1	12.28	53.35	12.70	0.17	6.18	0.692	0.000	0.000	0.000	0.000	0.000	2.573	0.000	1.042	1.058	1.053
Mineral	2009	6	16	1	2	499	689.4	11.80	49.50	11.50	0.17	3.48	0.740	0.000	0.393	0.000	0.369	0.000	1.688	1.046	1.176	1.169	1.213
Mineral	2009	6	16	2	2	540	573.6	12.90	44.43	21.60	0.86	7.14	0.764	0.820	0.000	0.000	0.000	0.713	2.347	0.000	0.990	1.088	1.032
Mineral	2009	6	16	3	2	372	478.9	13.14	52.90	10.80	0.18	3.04	1.959	2.053	1.935	0.000	0.000	0.982	0.000	0.000	0.000	0.000	0.000
Mineral	2009	6	16	4	2	716	457.8	13.60	47.00	9.81	0.56	5.12	1.308	1.326	2.162	0.000	0.273	0.000	0.682	0.000	0.000	0.341	0.303
Mineral	2009	6	16	5	2	747	447.3	13.94	24.13	12.80	0.53	11.70	0.574	0.000	0.258	0.000	0.000	0.000	1.313	0.927	0.964	1.008	1.025
Mineral	2009	6	17	1	1	509	689.4	13.94	30.12	9.62	0.17	4.72	0.733	0.000	0.000	0.000	0.000	0.000	2.038	0.000	1.176	1.226	1.253
Mineral	2009	6	17	2	1	449	389.4	14.16	26.50	4.96	0.14	4.66	0.567	0.000	0.312	0.000	0.304	0.000	1.686	0.744	0.873	1.038	0.983
Mineral	2009	6	17	3	1	330	515.7	12.80	43.15	9.03	0.20	3.88	0.539	0.000	0.000	0.000	0.000	0.000	1.819	0.849	0.884	0.959	0.891
Mineral	2009	6	17	4	1	838	678.8	12.74	39.25	12.80	0.82	13.60	0.489	0.570	0.000	0.000	0.000	0.616	1.417	0.867	0.870	0.867	0.877
Mineral	2009	6	17	5	1	1202	484.1	13.46	29.90	17.90	0.91	13.38	0.480	0.000	0.266	0.000	0.000	0.545	1.404	0.843	0.849	0.816	0.879
Mineral	2009	6	18	1	2	433	463.1	13.96	36.98	9.54	0.26	4.38	0.000	0.000	0.000	0.000	1.320	2.163	1.308	0.000	0.000	0.513	0.606
Mineral	2009	6	18	2	2	543	720.9	12.16	40.40	14.90	0.60	8.08	0.539	0.606	0.000	0.000	0.000	0.473	1.568	0.847	0.875	0.876	0.860
Mineral	2009	6	18	3	2	463	663.1	11.52	51.55	13.20	0.40	4.26	0.736	0.000	0.000	0.000	0.000	0.556	2.081	0.000	0.828	0.943	0.840
Mineral	2009	6	18	4	2	368	484.1	12.46	46.51	9.75	0.20	3.02	1.006	0.000	0.000	0.000	0.000	0.000	3.983	0.000	1.354	1.311	1.250
Mineral	2009	6	18	5	2	785	463.1	11.60	47.85	13.90	0.97	8.68	2.222	1.130	0.000	0.000	0.505	0.000	0.000	0.000	0.000	0.000	1.682

67.92	69.93	71.07	72.60	73.02	80.71	83.81	84.87	87.25	88.43	90.13	91.01	94.18	103.78	104.79	106.53	108.73	109.93	120.76	121.91	124.15	125.19	127.49	130.96	134.07	137.62	138.78	140.42	142.49	144.41	146.07
0.000	0.000	0.000	0.000	0.000	0.000	0.636	0.873	0.670	0.000	0.000	0.000	0.000	0.588	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.089	1.107	1.052	0.815	0.791	0.766
0.000	0.000	0.000	0.000	0.000	0.964	0.658	1.267	1.335	0.000	0.000	0.000	0.000	0.871	0.928	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.972	0.992	0.924	0.760	0.781	0.837
0.000	0.000	0.000	0.000	0.000	0.669	0.915	1.558	2.184	0.000	0.000	0.000	0.000	1.143	1.450	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.859	0.886	0.781	0.731	0.665	0.723
0.000	0.000	0.000	0.000	0.000	0.870	0.705	1.315	1.402	0.000	0.000	0.000	0.000	0.930	1.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.134	1.193	1.060	0.870	0.896	0.892
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.684	0.000	0.792	0.758	1.067	1.367	0.000	0.000	0.000	0.000	0.887	0.828	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.997	1.187	1.094	0.916	0.780	0.932
0.000	0.760	0.000	0.615	0.000	0.000	0.787	1.615	1.786	0.000	0.000	0.000	0.000	1.145	1.168	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.182	1.113	0.925	0.896	0.739	0.931
0.000	0.590	0.000	0.562	0.000	0.000	0.794	1.655	1.806	0.000	0.000	0.000	0.000	1.195	1.287	0.000	0.000	0.000	0.585	0.000	0.000	0.000	0.000	0.000	0.000	1.210	1.206	0.000	0.818	0.686	0.945
0.000	0.000	0.000	0.000	0.000	0.000	1.020	1.453	2.005	0.000	0.000	0.000	0.000	1.174	1.416	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.950	1.004	0.862	0.000	0.000	0.843
1.664	0.771	0.000	0.000	0.616	0.395	0.687	1.848	1.317	2.093	0.000	0.000	0.000	0.000	1.038	0.473	0.000	0.301	0.359	0.538	0.615	0.769	1.198	0.662	0.603	0.000	1.191	0.907	0.685	0.879	1.418
0.000	0.575	0.000	0.000	0.000	0.591	1.023	1.813	2.450	0.000	0.000	0.000	0.000	1.443	1.737	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.676	0.768	0.685	0.549	0.000	0.560
2.379	0.978	0.000	0.000	0.788	0.000	0.705	3.109	2.064	3.405	0.000	1.039	0.916	0.000	1.309	0.455	0.000	0.000	0.000	0.000	0.000	0.000	0.486	0.000	0.000	0.603	0.811	0.542	0.659	0.769	0.546
0.000	0.447	0.000	0.431	0.000	0.990	0.775	1.583	1.422	0.000	0.000	0.000	0.000	0.871	0.946	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.880	0.906	0.823	0.887	0.722	0.788
1.676	0.000	0.666	0.000	0.000	0.565	0.644	2.702	1.759	3.087	0.000	0.527	0.000	0.000	1.212	0.000	0.000	0.495	0.000	0.000	0.000	0.673	1.041	0.491	0.638	0.000	1.458	0.768	0.938	0.810	1.501
0.000	0.000	0.000	0.000	0.000	0.737	0.897	1.653	1.677	0.000	0.000	0.000	0.000	1.070	1.245	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.020	1.112	0.000	0.957	0.817	0.848
0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.623	1.742	0.000	0.000	0.000	0.000	1.099	1.321	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.158	1.229	0.916	0.000	0.000	0.952
0.000	0.000	0.000	0.643	0.000	0.629	0.611	1.323	1.276	0.000	0.000	0.000	0.000	0.912	0.934	0.000	0.000	0.000	0.532	0.000	0.000	0.000	0.000	0.000	0.000	1.021	1.292	0.000	0.759	0.700	0.861
0.000	0.000	0.000	0.492	0.000	0.000	0.699	1.487	1.688	0.000	0.000	0.000	0.000	1.142	1.232	0.000	0.000	0.000	0.592	0.000	0.000	0.000	0.000	0.000	0.000	0.863	0.947	0.852	0.664	0.612	0.745
0.000	0.646	0.000	0.621	0.000	0.000	1.076	1.677	2.099	0.000	0.000	0.000	0.000	1.362	1.453	0.000	0.000	0.000	0.580	0.000	0.000	0.000	0.000	0.000	0.000	0.827	0.963	0.857	0.574	0.000	0.596
0.000	0.000	0.000	0.646	0.000	0.000	0.822	1.407	1.458	0.000	0.000	0.000	0.000	0.942	1.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.806	0.857	0.846	0.625	0.732	0.741
2.341	0.683	0.000	0.000	0.681	0.000	0.955	2.545	1.730	3.065	0.000	0.000	0.000	0.000	1.488	0.578	0.000	0.000	0.000	0.000	0.000	0.000	0.481	0.428	0.630	0.697	1.006	0.600	0.418	0.568	0.901
0.000	0.000	0.000	0.000	0.000	0.000	0.591	1.345	1.393	0.000	0.000	0.000	0.000	0.821	0.863	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.182	1.247	1.060	0.000	0.776	0.821
0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.563	1.554	0.000	0.000	0.000	0.000	0.933	0.989	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.348	1.473	0.000	0.000	0.981	1.041
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.934	0.000	1.044	0.000	0.567	1.130	1.488	2.041	0.000	0.000	0.000	0.000	1.589	1.225	0.000	0.000	0.000	0.782	0.000	0.000	0.000	0.000	0.000	0.000	1.032	1.120	1.019	0.725	0.709	0.764
0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.292	1.335	0.000	0.000	0.000	0.000	0.792	0.796	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.014	1.102	0.891	0.762	0.622	0.910
0.000	0.000	0.000	0.000	0.000	0.000	0.613	1.333	1.408	0.000	0.000	0.000	0.000	0.743	0.843	0.000	0.000	0.000	0.587	0.000	0.000	0.000	0.000	0.000	0.000	1.047	1.227	0.923	0.665	0.634	0.902
0.000	0.000	0.000	0.000	0.000	0.000	0.495	1.301	1.310	0.000	0.000	0.000	0.000	0.761	0.767	0.000	0.000	0.000	0.529	0.000	0.000	0.000	0.000	0.000	0.000	1.002	1.157	0.950	0.773	0.657	0.843
0.000	0.000	0.000	0.000	0.000	0.532	0.000	1.260	1.185	0.000	0.000	0.000	0.000	0.726	0.726	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.986	1.125	0.977	0.816	0.711	0.830
0.000	0.000	0.000	0.000	0.000	1.279	0.602	1.186	1.210	0.000	0.000	0.000	0.000	0.735	0.755	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.766	0.924	0.778	0.658	0.545	0.689
1.033	0.508	0.848	0.000	0.635	1.206	1.113	1.496	1.013	1.321	0.637	0.631	0.448	0.000	0.569	0.273	0.000	0.256	0.539	0.670	0.668	0.000	0.950	0.544	0.000	0.000	1.382	1.150	0.912	1.362	1.752
0.000	0.000	0.000	0.000	0.000	0.000	0.752	1.649	2.063	0.000	0.000	0.000	0.000	1.092	1.252	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.005	1.111	0.882	0.000	0.000	0.829
0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.542	1.680	0.000	0.000	0.000	0.000	0.991	1.107	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.991	1.190	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.825	1.624	1.981	0.000	0.000	0.000	0.000	1.061	1.372	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.151	1.274	0.995	0.000	0.000	0.924
0.000	0.000	0.000	0.000	0.000	1.255	0.000	1.814	1.924	0.000	0.000	0.000	0.000	1.089	1.222	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.021	1.170	0.000	0.000	0.000	1.041
0.000	0.000	0.000	0.697	0.000	0.000	0.000	0.596	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.109	1.317	0.000	0.892	0.000	0.849
1.474	0.732	0.857	0.000	0.679	0.492	0.624	1.615	1.118	1.658	1.033	0.612	0.382	0.000	0.789	0.283	0.000	0.000	0.649	0.791	0.757	0.739	1.308	0.691	0.678	1.218	1.292	1.159	0.917	1.115	1.392
1.779	1.031	0.769	0.000	0.789	0.351	0.798	2.041	1.401	2.302	1.218	0.000	0.000	0.000	1.109	0.496	0.000	0.394	0.401	0.598	0.632	0.000	1.181	0.608	0.603	1.069	1.004	0.918	0.719	1.061	1.142
0.000	0.000	0.000	0.000	0.000	0.959	0.937	1.465	1.644	0.000	0.000	0.000	0.000	0.780	1.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.126	1.198	0.000	0.656	0.700	0.752
0.000	0.544	0.000	0.562	0.000	0.770	0.607	1.471	1.634	0.000	0.000	0.000	0.000	0.935	0.990	0.000	0.000	0.000	0.535	0.000	0.000	0.000	0.000	0.000	0.000	1.019	1.079	0.731	0.853	0.000	0.788
0.000	1.426	0.000	0.000	0.000	0.000	0.000	0.000	1.229	0.000	0.000	0.000	0.000	0.000	1.419	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2.367	1.544	0.000	0.000	0.997	0.000	0.791	3.264	2.053	3.715	0.000	0.000	0.000	0.000	1.345	0.558	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.641
0.000	0.676	0.000	0.000	0.000	1.441	0.918	1.130	1.421	0.000	0.000	0.000	0.000	0.866	1.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.691	0.702	0.615	0.000	0.000	0.702
0.000	0.794	0.000	0.000	0.000	1.384	0.828	0.787	0.842	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.799	0.000	0.000	0.000	1.410	0.888	0.988	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.183	1.178	1.118	0.968	0.908	0.949
0.000	0.000	0.000	0.000	0.000	0.730	0.675	1.227	0.000	0.000	0.000	0.000	0.000	0.932	1.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.909	0.739	0.824	0.615	0.725
2.323	0.782	0.000	0.000	0.711	0.425	1.053	2.506	1.697	3.036	0.000	0.000	0.000	0.000	1.406	0.608	0.000	0.511	0.000	0.000	0.416	0.000	0.543	0.000	0.000	0.815	0.802	0.584	0.473	0.467	1.128
0.000	1.034	0.000	0.000	0.000	0.000	1.138	1.462	3.052	0.000	0.000	0.000	0.000	1.353	1.777	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2.198	0.850	0.000	0.000	0.661	0.534	1.082	2.241	1.556	2.644	0.000	0.000	0.000	0.000	1.484	0.000	0.000	0.000	0.466	0.381	0.477	0.463	0.787	0.471	0.492	0.888	0.866	0.726	0.500	0.545	1.050
1.565	0.607	0.366	0.000	0.511	1.624	1.935	2.044	1.337	2.130	0.000	0.496	0.353	0.000	1.061	0.000	0.000	0.000	0.391	0.480	0.532	0.000	0.680	0.366	0.615	0.000	1.214	0.812	0.743	0.854	1.401
0.000	0.000	0.000	0.000	0.000	0.000	0.922	1.490	2.940	0.000	0.000	0.000	0.000	1.384	1.566	0.000	0.000	0.000	0.670	0.000	0.000	0.000	0.000	0.000	0.000	0.926	0.918	0.000	0.000	0.000	0.000
1.556	0.561	1.020	0.000	0.911	0.307	0.569	1.652	1.161	1.769	0.000	0.000	0.309	0.000	0.835	0.467	0.000	0.407	0.513	0.549	0.732	0.000	0.000	0.690	0.939	1.352	1.479	1.232	0.913	1.227	1.383
0.000	0.530	0.000	0.654	0.000	0.000	0.632	1.263	1.997	0.000	0.000	0.000	0.000	0.911	1.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.079	0.914	0.000	0.942
0.654	0.000	0.388	0.000	0.720	0.000	0.913	2.425	1.607	2.931	0.000	0.000	0.000	0.000	1.469	0.358	0.000	0.000	0.379	0.367	0.526	0.000	0.000	0.599	0.659	0.831	0.978	0.711	0.564	0.610	0.965
0.000	0.801	0.000	0.000	0.000	0.000	0.879	1.461	2.852	0.000	0.000	0.000	0.000	1.248	1.479	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.822	0.781	0.000	0.000	0.000
2.199	0.981	0.440	0.000	0.896	0.000	1.023	2.410	1.636	2.908	0.000	0.000	0.000	0.000	1.405	0.455	0.000	0.501	0.000	0.000	0.000	0.620	0.890	0.000	0.000	0.000	0.687	0.000	0.420	0.550	0.853
2.195	0.693	0.572	0.000	0.594	0.000	0.978	2.217	1.513	2.635	0.000	0.380	0.000	0.000	1.353	0.433	0.000	0.000	0.000	0.454	0.459	0.000	1.458	0.754	0.626	0.935	0.982	0.825	0.000	0.792	0.957
2.159	0.845	0.000	0.000	0.871	0.000	0.940	2.462	1.674	2.925	0.000	0.000	0.000	0.000	1.486	0.766	0.000	0.710	0.000	0.000	0.000	0.000	0.772	0.000	0.598	0.813	0.851	0.637	0.000	0.548	0.928
2.360	0.689	0.000	0.000	0.773	0.000	1.029	2.628	1.744	3.086	0.000	0.000	0.000	0.000	1.557	0.582	0.000	0.470	0.000	0.000	0.000	0.421	0.648	0.000	0.518	0.592	0.670	0.457	0.000	0.000	0.836
0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.337	1.999	0.000	0.000	0.000	0.000	0.962	1.181	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.246	1.055	1.120	0.000	0.000	0.000
0.000	0.554	0.000	0.512	0.000	0.000	0.565	1.321	2.135	0.000	0.000	0.000	0.000	1.031	1.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.023	1.023	0.000	0.921	0.000	0.821
2.018	1.219	0.000	0.000	0.697	0.000	0.686	2.139	1.741	3.151	0.000	0.000	0.000	0.000	1.468	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.624	0.743	0.000	0.000	0.000	0.836
2.254	1.339	0.000	0.000	0.000	0.000	0.756	1.915	1.501	2.814	0.000	0.000	0.000	0.000	1.276	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.024	0.000	0.000	0.673	0.831	0.630	0.000	0.707	0.943
1.834	0.854	0.366	0.000	0.697	0.748	0.737	2.081	1.428	2.433	0.000	0.442	0.301	0.000	1.276	0.499	0.000	0.430	0.408	0.511	0.551	0.000	1.201	0.871	0.728	1.029	1.103	0.918	0.630	0.945	1.250
1.171	0.507	0.802	0.000	0.608	0.385	0.507	1.430	1.032	1.369	0.752	0.511	0.371	0.000	0.659	0.334	0.000	0.000	0.471	0.770	0.739	0.847	1.402	0.833	0.950	1.363	1.334	1.158	0.806	1.311	1.495
1.360	0.797	0.596	0.381	0.512	0.402	0.514	1.350	1.095	1.697	0.000	0.409	0.317	0.000	0.753	0.000	0.000	0.000	0.339	0.706	0.524	0.734	1.096	0.696	0.601	1.093	1.248	1.131	0.000	1.002	1.464
2.054	0.585	0.429	0.000	0.546	0.000	0.683	1.883	1.509	2.647	0.000	0.000	0.000	0.000	1.151	0.537	0.426	0.389	0.356	0.454	0.534	0.612	0.856	0.602	0.525	0.752	0.872	0.786	0.480	0.840	1.163
1.526	0.774	0.677	0.471	0.641	0.456	0.605	1.684	1.370	2.205	0.977	0.000	0.000	0.000	1.003	0.000	0.000	0.000	0.000	0.643	0.407	0.721	1.163	0.756	0.473	1.002	1.112	1.124	0.667	0.910	1.337
1.312	0.678	0.764	0.601	0.596	0.425	0.542	1.423	1.162	1.741	0.922	0.488	0.342	0.000	0.763	0.000	0.000	0.000	0.000	0.669	0.453	0.750	1.278	0.752	0.612	1.102	1.195	1.111	0.700	1.124	1.260
2.125	0.770	0.000	0.000	0.559	0.000	0.715	1.830	1.506	2.564	0.000	0.000	0.000	0.000	1.211	0.462	0.000	0.000	0.384	0.000	0.000	0.000	0.786	0.568	0.553	0.882	0.942	0.813	0.000	0.765	1.163
1.010	1.192	0.000	1.415	0.854	0.000	1.004	0.000	0.918	0.608	1.293	1.846	0.000	0.000	0.716	0.000	0.000	0.000	0.000	0.774	1.048	0.000	0.000	1.042	1.268	1.358	1.615	1.548	0.874	0.000	0.000
1.034	0.627	0.711	0.709	0.660	0.758	0.840	1.287	1.064	1.407	0.000	0.514	0.438	0.000	0.570	0.384	0.000	0.000	0.419	0.655	0.000	0.000	1.045	0.658	0.773	1.198	1.379	1.190	1.079	1.289	1.376
1.154	0.726	0.745	0.673	0.597	0.603	0.595	1.378	1.116	1.627	0.540	0.000	0.328	0.000	0.651	0.382	0.000	0.000	0.000	0.484	0.000	0.000	1.012	0.625	0.829	1.209	1.142	0.973	0.000	1.191	1.298
1.159	0.789	0.676	0.528	0.555	0.526	0.555	1.403	1.088	1.682	0.535	0.393	0.000	0.000	0.661	0.331	0.000	0.000	0.382	0.623	0.000	0.663	0.966	0.622	0.797	1.148	1.249	1.074	0.999	1.193	1.416
1.293	1.024	0.842	0.553	0.727	0.734	0.681	1.460	1.139	1.788	0.703	0.000	0.000	0.000	0.755	0.000	0.000	0.000	0.000	0.000	0.000	0.495	0.988	0.546	0.000	0.935	1.058	0.877	0.737	1.095	1.219
1.525	0.738	0.592	0.476	0.622	0.790	0.816	1.508	1.221	2.017	0.000	0.302	0.000	0.000	0.849	0.000	0.000	0.000	0.374	0.446	0.000	0.639	0.790	0.496	0.783	1.130	1.080	0.953	0.739	1.096	1.308
1.313	0.755	0.855	0.804	0.740	0.812	1.014	1.392	1.016	1.542	0.000	0.000	0.000	0.000	0.664	0.562	0.000	0.000	0.000	0.000	0.000	0.554	0.792	0.000	0.787	1.203	1.150	1.162	0.834	1.509	1.491
1.653	1.031	1.365	1.358	1.391	0.000	0.000	0.375	0.000	0.000	1.506	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.386	0.772	1.062	0.905	0.000	1.048	0.000	1.142
0.000	0.000	1.210	0.777	0.974	0.000	0.000	0.725	0.000	0.000	0.570	0.312	0.430	0.281	0.418	0.000	0.000	0.000	0.000	0.000	0.409	0.000	0.293	0.000	0.000	0.770	1.118	0.000	0.686	0.323	0.759
1.259	0.619	0.995	0.711	0.782	1.059	0.984	1.330	1.090	1.520	0.760	0.522	0.405	0.000	0.613	0.309	0.000	0.000	0.450	0.642	0.000	0.000	0.985	0.610	0.866	1.327	1.291	1.156	0.902	1.359	1.404
1.675	0.939	0.726	0.685	0.699	0.860	0.888	1.572	1.243	1.894	0.670	0.000	0.418	0.000	0.917	0.479	0.000	0.000	0.000	0.402	0.000	0.000	0.701	0.505	0.591	1.076	1.304	1.070	1.017	1.117	1.240
1.349	0.667	0.719	0.625	0.656	0.679	0.730	1.357	1.061	1.641	0.000	0.452	0.372	0.000	0.761	0.285	0.000	0.288	0.288	0.453	0.000	0.000	0.776	0.560	0.687	0.000	1.347	1.105	1.041	1.144	1.194
1.119	0.686	0.741	0.802	0.634	1.122	1.193	1.397	1.087	1.567	0.629	0.501	0.414	0.000	0.572	0.350	0.000	0.000	0.000	0.426	0.000	0.000	0.759	0.000	0.756	1.227	1.416	1.118	1.034	1.242	1.270
0.935	0.593	0.658	0.717	0.614	0.693	0.743	1.296	1.059	1.378	0.545	0.465	0.354	0.000	0.600	0.374	0.254	0.000	0.000	0.586	0.469	0.784	0.988	0.000	0.740	1.289	1.426	1.158	1.036	1.262	1.305
0.898	0.610	0.649	0.717	0.608	0.865	0.927	1.125	0.924	1.142	0.576	0.491	0.440	0.000	0.459	0.295	0.000	0.000	0.000	0.658	0.567	0.801	0.992	0.753	0.744	1.336	1.434	1.241	1.102	1.323	1.371
0.000	0.000	0.000	0.000	0.000	0.000	0.717	0.709	0.000	0.000	0.000	0.542	0.000	0.000	0.373	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.707	0.000	0.000	0.779	0.000	1.011	0.000	1.072
0.987	0.650	0.874	0.643	0.668	1.499	1.505	1.349	1.049	1.311	0.708	0.674	0.516	0.000	0.550	0.399	0.000	0.000	0.313	0.620	0.000	0.709	0.967	0.563	0.778	1.320	1.424	1.196	1.034	1.342	1.351
1.045	0.706	0.845	0.790	0.756	0.886	0.928	1.248	0.908	1.251	0.533	0.000	0.424	0.000	0.714	0.000	0.000	0.000	0.000	0.393	0.000	0.509	0.720	0.482	0.000	1.197	1.098	1.010	0.850	1.189	1.133
1.880	1.315	0.712	0.636	0.611	0.776	0.957	1.828	1.434	2.543	0.000	0.000	0.000	0.000	1.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.663	0.000	0.843	0.970	1.021	0.745	0.000	1.045	1.175
0.000	0.864	0.922	0.971	0.000	0.761	0.000	0.708	1.051	0.803	0.000	0.926	1.059	0.000	0.000	0.000	0.355	0.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.385	1.099	0.000

148.11	151.74	157.52	160.34	163.24	169.00	170.92	172.33	181.44	193.17	195.82	197.81	198.75	203.06	204.60	206.61	207.61	208.31	213.99	215.95	217.32	219.70	223.06	225.02	232.82	275.75	286.91	291.02	394.09	398.20	401.56
1.546	0.000	0.000	0.962	0.815	0.000	0.819	0.000	0.000	0.000	0.666	0.000	0.766	0.000	0.774	0.000	0.795	0.000	1.037	0.000	0.998	0.000	0.571	0.000	1.005	0.000	0.744	0.576	0.000	0.000	0.000
1.540	0.000	0.000	0.820	0.655	0.547	1.013	0.000	0.000	0.000	0.721	0.000	0.786	0.000	0.955	0.000	1.088	0.000	1.027	0.000	0.673	0.000	0.793	0.000	0.755	0.000	0.643	0.506	0.000	0.000	0.000
1.307	0.000	0.000	0.845	0.000	0.000	0.735	0.000	0.000	0.539	0.866	0.000	0.988	0.000	1.171	0.000	1.679	0.000	1.378	0.000	1.156	0.682	1.173	0.000	1.294	0.000	0.000	0.581	0.000	0.000	0.000
1.666	0.000	0.000	1.001	0.721	0.000	0.909	0.000	0.000	0.000	0.866	0.000	0.946	0.000	1.038	0.000	1.202	0.000	1.160	0.000	0.834	0.000	0.896	0.000	0.978	0.000	0.654	0.631	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.656	0.000	0.000	1.279	0.000	0.000	1.120	0.748	0.000	0.000	0.842	0.000	1.098	0.000	1.101	0.000	1.719	0.000	1.556	0.000	2.114	0.856	0.960	0.000	1.631	0.000	0.000	0.000	0.000	0.000	0.000
1.727	0.000	0.000	1.361	0.732	0.000	0.835	0.000	0.000	0.632	0.991	0.000	1.082	0.000	1.469	0.000	1.899	0.000	1.555	0.000	1.369	0.597	1.170	0.000	1.367	0.000	0.000	0.000	0.000	0.000	0.000
1.702	0.000	0.000	1.312	0.000	0.532	0.753	0.000	0.000	0.000	1.034	0.000	1.116	0.000	1.190	0.000	1.416	0.000	1.234	0.000	0.981	0.000	1.077	0.000	1.241	0.000	0.552	0.000	0.000	0.000	0.000
1.464	0.000	0.000	1.197	0.000	0.000	0.988	0.000	0.000	0.000	0.798	0.000	1.014	0.000	1.266	0.000	1.816	0.000	1.438	0.000	1.359	0.811	1.104	0.000	1.503	0.000	0.000	0.000	0.000	0.000	0.000
1.619	1.239	0.985	1.164	0.807	0.837	0.519	0.645	0.352	0.713	1.120	1.040	1.113	0.567	1.505	1.605	0.000	1.967	1.271	0.973	1.051	0.852	0.733	0.604	0.713	0.557	0.000	0.577	0.733	0.920	0.567
1.251	0.000	0.000	0.649	0.000	0.000	0.772	0.000	0.000	0.000	0.941	0.000	1.130	0.000	1.507	0.000	2.132	0.000	1.458	0.000	1.261	0.898	1.528	0.000	1.452	0.000	0.000	0.000	0.000	0.000	0.000
0.590	0.000	0.000	0.000	0.000	0.801	0.865	0.519	0.000	0.826	1.309	1.118	1.236	0.000	1.831	1.934	0.000	2.149	0.000	1.565	1.816	1.009	0.853	0.000	1.015	0.000	0.000	0.000	0.000	0.000	0.000
1.438	0.000	0.000	0.718	0.387	0.556	0.748	0.000	0.000	0.543	0.860	0.000	0.861	0.000	1.082	0.000	1.186	0.000	1.186	0.000	0.954	0.500	0.837	0.000	0.975	0.000	0.000	0.467	0.000	0.000	0.000
1.713	0.682	0.852	0.604	0.000	0.852	0.580	0.709	0.000	0.000	1.202	1.202	1.161	0.000	1.272	1.186	0.000	1.293	2.111	1.174	1.608	0.000	0.751	0.511	0.845	0.460	0.000	0.527	0.614	0.799	0.000
1.589	0.000	0.000	0.616	0.000	0.000	0.840	0.000	0.000	0.754	1.054	0.000	1.045	0.000	1.266	0.000	1.513	0.000	1.367	0.000	1.070	0.000	1.057	0.000	1.207	0.000	0.589	0.000	0.000	0.000	0.000
1.679	0.000	0.000	0.969	0.000	0.000	0.995	0.000	0.000	0.000	1.187	0.000	1.308	0.000	1.430	0.000	1.693	0.000	1.448	0.000	1.129	0.000	1.301	0.000	1.256	0.000	0.000	0.000	0.000	0.000	0.000
1.373	0.000	0.000	1.052	0.687	0.524	1.192	0.000	0.000	0.000	0.821	0.000	0.791	0.000	1.077	0.000	1.071	0.000	1.237	0.000	0.951	0.000	0.827	0.000	1.035	0.000	0.000	0.000	0.000	0.000	0.000
1.413	0.000	0.000	0.890	0.000	0.000	0.939	0.000	0.000	0.592	0.832	0.000	0.855	0.000	1.191	0.000	1.456	0.000	1.214	0.000	1.003	0.520	1.047	0.000	1.156	0.000	0.000	0.000	0.000	0.000	0.000
1.275	0.000	0.000	1.032	0.000	0.000	0.757	0.000	0.000	0.631	1.159	0.000	1.364	0.000	1.357	0.000	1.890	0.000	1.592	0.000	1.376	0.824	1.294	0.000	1.544	0.000	0.000	0.000	0.000	0.000	0.000
1.485	0.000	0.000	0.990	0.000	0.000	0.842	0.000	0.000	0.000	0.822	0.000	0.801	0.000	1.089	0.000	1.245	0.000	1.171	0.000	0.931	0.000	0.963	0.000	1.070	0.000	0.000	0.000	0.000	0.000	0.000
0.837	0.000	0.568	0.507	0.000	0.804	0.000	0.535	0.000	0.784	1.564	1.285	1.590	0.000	0.000	0.000	0.000	0.000	1.631	1.287	1.419	1.144	0.974	0.000	0.898	0.000	0.000	0.393	0.000	0.421	0.000
1.263	0.000	0.000	0.917	0.715	0.604	1.185	0.000	0.000	0.508	0.848	0.000	0.942	0.000	1.137	0.000	1.369	0.000	1.046	0.000	0.848	0.508	0.866	0.000	0.818	0.000	0.000	0.508	0.000	0.000	0.000
1.504	0.000	0.000	1.133	0.883	0.000	1.488	0.000	0.000	0.000	1.078	0.000	1.146	0.000	1.314	0.000	1.493	0.000	1.254	0.000	0.996	0.000	1.049	0.000	0.973	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.681	0.000	0.000	0.668	0.558	0.388	0.862	0.000	0.000	0.000	0.615	0.000	0.746	0.000	1.257	0.000	1.702	0.000	1.920	0.000	2.805	0.000	1.116	0.000	2.155	0.000	0.000	0.000	0.000	0.000	0.000
1.468	0.000	0.000	1.244	0.784	0.000	1.049	0.000	0.000	0.000	0.788	0.000	0.813	0.000	1.001	0.000	1.111	0.000	1.030	0.000	0.784	0.000	0.735	0.000	0.788	0.000	0.000	0.000	0.000	0.000	0.000
1.717	0.000	0.000	1.053	0.825	0.536	1.057	0.000	0.000	0.000	0.864	0.000	0.904	0.000	1.138	0.000	1.297	0.000	1.151	0.000	0.942	0.556	0.822	0.000	0.911	0.000	0.502	0.475	0.000	0.000	0.000
1.616	0.000	0.000	0.899	0.679	0.515	1.002	0.000	0.000	0.000	0.823	0.000	0.886	0.000	1.069	0.000	1.245	0.000	1.151	0.000	0.924	0.515	0.693	0.000	0.908	0.000	0.000	0.000	0.000	0.000	0.000
1.527	0.000	0.000	0.983	0.703	0.537	1.173	0.000	0.000	0.000	0.803	0.000	0.782	0.000	1.169	0.000	1.224	0.000	0.934	0.000	0.675	0.000	0.823	0.000	0.749	0.000	0.000	0.610	0.000	0.000	0.000
1.325	0.000	0.000	0.697	0.000	0.000	0.875	0.000	0.000	0.000	0.727	0.000	0.710	0.000	0.878	0.000	0.931	0.000	1.022	0.000	0.868	0.000	0.571	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0.000
1.297	0.721	0.584	0.793	0.784	1.165	0.766	1.045	0.000	0.563	0.873	0.849	0.741	0.596	1.117	1.131	0.000	1.184	0.000	0.674	0.614	0.614	0.601	0.543	0.480	0.345	0.668	0.693	0.580	1.007	0.725
1.512	0.000	0.000	0.798	0.000	0.000	1.382	0.000	0.000	0.000	0.959	0.000	1.101	0.000	1.248	0.000	1.683	0.000	1.284	0.000	1.083	0.823	1.050	0.000	1.111	0.000	0.000	0.000	0.000	0.000	0.000
1.368	0.000	0.000	0.877	0.786	0.000	1.164	0.000	0.000	0.000	1.001	0.000	1.069	0.000	1.186	0.000	1.398	0.000	1.292	0.000	0.877	0.000	0.933	0.000	0.949	0.000	0.000	0.000	0.000	0.000	0.000
1.620	0.000	0.000	1.056	0.911	0.000	1.394	0.000	0.535	0.000	1.014	0.000	1.249	0.000	1.349	0.000	1.852	0.000	1.412	0.000	1.254	0.833	1.188	0.000	1.269	0.000	0.000	0.000	0.000	0.000	0.000
1.892	0.000	0.000	0.000	0.000	0.000	1.318	0.000	0.000	0.000	1.060	0.000	1.170	0.000	1.303	0.000	1.547	0.000	1.263	0.000	1.041	0.000	1.070	0.000	1.089	0.000	0.000	0.000	0.000	0.000	0.000
1.437	0.000	0.000	1.160	0.885	0.000	1.321	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.624	0.000	0.000	0.000	0.869	0.000	0.540	0.000	0.000	0.000	0.581	0.000	0.000	0.556	0.000	0.000	0.000
1.623	1.374	0.648	1.024	0.842	1.159	0.739	0.941	0.696	0.737	1.029	0.909	0.888	0.788	1.274	1.356	0.000	1.510	0.000	0.764	0.769	0.599	0.694	0.510	0.474	0.452	0.557	0.000	0.000	0.959	0.663
1.610	1.258	1.061	1.286	0.703	1.168	0.664	0.976	0.000	0.718	1.164	1.046	1.181	0.670	1.451	0.000	0.000	1.785	0.000	0.984	1.007	0.842	0.844	0.000	0.566	0.435	0.504	0.504	0.000	0.671	0.413
1.080	0.000	0.000	0.656	0.817	0.000	1.133	0.791	0.000	0.000	0.862	0.000	1.036	0.000	1.267	0.000	1.722	0.000	1.277	0.000	1.007	0.675	1.080	0.000	1.144	0.000	0.000	0.000	0.000	0.000	0.000
1.160	0.000	0.000	0.856	0.737	0.665	1.305	0.000	0.000	0.000	0.950	0.000	1.050	0.000	1.248	0.000	1.545	0.000	1.283	0.000	1.113	0.810	0.903	0.000	1.031	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.442	0.447	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.789	1.570	1.286	1.518	0.000	1.846	1.923	0.000	2.214	0.000	1.367	1.617	0.815	0.954	0.000	0.894	0.000	0.000	0.000	0.000	0.000	0.000
1.380	0.000	0.000	0.760	0.681	0.000	0.862	0.000	0.000	0.000	0.000	0.000	0.660	0.000	0.000	0.000	0.853	0.000	0.823	0.000	0.000	0.000	0.671	0.000	0.717	0.000	0.000	0.000	0.000	0.000	0.000
1.036	0.000	0.000	0.000	0.000	0.000	0.822	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.419	0.000	0.000	0.000	0.908	0.837	1.356	1.318	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.806	0.000	0.000	0.806	0.000	0.000	0.000
1.307	0.000	0.000	0.762	0.000	0.000	0.837	0.000	0.000	0.000	0.705	0.000	0.853	0.000	0.882	0.000	1.181	0.000	1.062	0.000	0.794	0.000	0.816	0.000	0.890	0.000	0.000	0.000	0.000	0.000	0.000
1.028	0.400	0.413	0.503	0.000	0.632	0.000	0.425	0.000	0.762	1.475	1.181	1.501	0.584	1.738	1.866	0.000	2.406	1.610	1.269	1.360	1.073	0.792	0.000	1.079	0.000	0.400	0.000	0.656	0.658	0.365
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.335	0.000	1.073	0.000	1.980	0.000	1.569	0.000	1.394	0.918	1.247	0.000	1.468	0.000	0.000	0.000	0.000	0.000	0.000
1.008	0.529	0.574	0.716	0.000	0.634	0.000	0.418	0.000	0.804	0.000	1.132	1.396	0.427	1.818	1.923	0.000	2.520	1.586	1.314	1.467	1.146	0.926	0.000	1.122	0.357	0.447	0.371	0.000	0.634	0.403
1.090	0.558	0.532	0.577	0.426	0.844	0.000	0.546	0.000	0.744	1.251	1.006	1.184	0.649	1.486	1.470	0.000	1.814	0.000	1.010	1.035	0.894	0.678	0.509	0.879	0.484	0.543	0.468	0.656	0.937	0.659
1.067	0.000	0.000	0.931	0.000	0.000	1.048	0.000	0.000	0.000	1.005	0.000	1.247	0.000	1.033	0.000	1.990	0.000	1.390	0.000	1.266	0.864	1.185	0.000	1.234	0.000	0.000	0.000	0.000	0.000	0.000
1.498	1.055	1.176	1.170	0.911	1.299	0.906	1.204	0.237	0.876	1.194	1.008	1.172	0.000	1.275	1.334	0.000	1.563	0.000	0.881	0.950	0.677	0.644	0.369	0.615	0.297	0.759	0.768	0.542	0.604	0.377
1.402	0.000	0.000	1.328	0.000	0.690	1.352	0.000	0.000	0.486	0.771	0.000	0.949	0.000	0.847	0.000	1.221	0.000	1.116	0.000	0.882	0.465	0.755	0.000	0.827	0.000	0.473	0.641	0.000	0.000	0.000
1.200	0.490	0.824	0.610	0.000	0.757	0.000	0.468	0.000	0.843	1.429	1.177	1.481	0.000	0.000	1.905	0.000	0.000	1.631	1.221	1.463	1.006	0.875	0.000	0.972	0.000	0.351	0.385	0.414	0.471	0.000
1.109	0.000	0.000	1.033	0.000	0.000	1.022	0.000	0.000	0.000	0.927	0.000	1.152	0.000	1.043	0.000	1.988	0.000	1.303	0.000	1.243	0.927	0.951	0.000	1.152	0.000	0.000	0.000	0.000	0.000	0.000
1.239	0.597	0.806	0.000	0.000	0.428	0.000	0.000	0.000	0.824	1.409	1.078	1.281	0.000	2.062	2.056	0.000	2.680	0.000	1.320	1.286	1.350	0.909	0.000	0.762	0.000	0.000	0.000	0.474	0.565	0.000
1.466	0.869	0.827	1.079	0.568	0.970	0.000	0.692	0.342	0.723	1.406	1.174	1.438	0.734	1.888	1.953	0.000	2.494	0.000	1.248	1.447	1.039	0.922	0.000	0.989	0.471	0.449	0.389	0.000	0.658	0.456
1.095	0.489	0.548	0.685	0.000	0.805	0.000	0.479	0.000	0.703	1.522	1.287	1.593	0.000	2.081	2.130	0.000	2.883	0.000	1.232	1.498	0.990	1.009	0.000	1.085	0.000	0.499	0.000	0.562	0.565	0.000
1.053	0.000	0.648	0.548	0.000	0.613	0.000	0.000	0.000	0.869	1.581	1.265	1.590	0.700	1.939	0.000	0.000	2.572	0.000	1.466	1.553	1.440	0.944	0.405	1.094	0.000	0.000	0.000	0.512	0.571	0.413
1.637	0.000	0.000	1.252	0.000	0.000	1.106	0.000	0.000	0.000	0.000	0.000	1.025	0.000	0.937	0.000	1.331	0.000	1.154	0.000	0.945	0.000	0.000	0.000	0.929	0.000	0.000	0.000	0.000	0.000	0.000
1.360	0.000	0.000	0.970	0.000	0.572	1.115	0.000	0.000	0.000	0.799	0.000	1.063	0.000	0.936	0.000	1.567	0.000	1.221	0.000	1.029	0.699	0.848	0.000	0.910	0.000	0.000	0.690	0.000	0.000	0.000
0.966	0.000	0.630	0.000	0.000	0.681	0.000	0.000	0.000	0.814	1.422	1.225	1.632	0.000	0.000	1.627	2.024	2.843	1.789	0.000	1.383	1.011	1.095	0.000	1.166	0.000	0.000	0.000	0.000	0.000	0.000
1.130	0.807	0.000	0.729	0.000	0.922	0.000	0.845	0.000	0.696	1.222	1.162	1.439	0.000	0.000	1.288	1.604	2.153	1.409	1.095	1.300	1.004	0.891	0.000	0.868	0.000	0.000	0.000	0.000	0.766	0.000
1.331	0.930	0.848	0.945	0.000	1.265	0.660	1.017	0.347	0.928	1.394	1.082	1.257	0.547	1.558	1.638	0.000	2.091	0.000	1.093	1.266	0.949	0.751	0.000	0.859	0.416	0.560	0.000	0.000	0.822	0.656
1.603	1.438	0.987	1.392	0.978	1.349	0.958	1.276	0.514	0.695	0.000	0.943	0.891	0.664	1.125	1.174	0.000	1.228	1.024	0.767	0.762	0.549	0.720	0.401	0.468	0.637	0.771	0.000	0.000	1.093	0.973
1.317	1.215	0.000	1.048	0.774	0.952	0.691	0.999	0.678	0.496	0.828	0.824	0.874	0.543	0.000	1.039	1.232	1.476	1.156	0.876	0.959	0.740	0.667	0.359	0.578	0.526	0.517	0.456	0.000	1.151	0.849
1.301	0.911	0.640	0.712	0.488	0.791	0.420	0.744	0.000	0.640	1.114	1.064	1.338	0.000	0.000	1.483	1.807	2.389	1.608	1.258	1.523	1.138	0.925	0.000	0.941	0.446	0.000	0.402	0.000	0.900	0.696
1.457	1.449	0.698	0.980	0.744	1.007	0.594	0.966	0.601	0.565	1.038	1.001	1.163	0.597	0.000	1.213	1.470	1.793	1.319	0.973	1.106	0.779	0.721	0.000	0.661	0.562	0.433	0.479	0.000	1.034	0.765
1.451	1.390	0.615	0.967	0.806	1.167	0.000	1.323	0.532	0.576	0.956	0.890	1.089	0.557	0.000	1.208	1.443	1.771	1.077	0.864	0.859	0.809	0.793	0.449	0.513	0.563	0.535	0.582	0.425	0.963	0.762
1.126	0.695	0.346	0.622	0.416	0.890	0.468	0.840	0.000	0.719	1.285	1.208	1.589	0.665	0.000	1.337	1.700	2.236	1.481	1.189	1.406	1.243	0.887	0.000	0.885	0.000	0.512	0.470	0.000	0.843	0.603
0.000	0.774	1.120	1.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.780	0.810	0.611	0.000	0.622	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.908	0.000
1.344	1.012	0.683	0.000	0.000	1.055	0.762	1.041	0.307	0.643	1.000	1.053	1.007	0.631	0.000	1.036	1.280	1.341	1.113	0.809	0.834	0.566	0.664	0.560	0.403	0.313	1.218	0.000	0.000	0.510	0.300
1.337	1.001	0.640	0.000	0.756	0.864	0.815	0.851	0.000	0.616	0.975	0.945	0.909	0.783	0.000	1.054	1.213	1.393	1.041	0.000	0.830	0.632	0.611	0.421	0.431	0.495	0.000	0.882	0.000	0.618	0.447
1.330	1.015	0.645	0.000	0.664	0.938	0.691	0.882	0.000	0.591	0.994	0.988	0.959	0.710	0.000	0.979	1.130	1.316	1.036	0.755	0.783	0.000	0.516	0.422	0.424	0.303	0.879	0.720	0.502	0.677	0.000
1.086	0.772	0.000	0.586	0.000	0.846	0.556	0.760	0.000	0.499	0.907	0.835	0.877	0.579	0.000	1.071	1.216	1.560	1.097	0.762	0.873	0.480	0.641	0.455	0.546	0.000	0.812	0.724	0.000	0.734	0.447
1.241	0.739	0.568	0.686	0.626	0.790	0.622	0.636	0.000	0.625	1.002	0.991	1.096	0.518	0.000	1.158	1.399	1.765	1.266	0.994	1.126	0.880	0.713	0.487	0.627	0.504	0.631	0.609	0.420	0.791	0.559
1.491	1.150	0.000	0.633	0.558	1.074	0.687	1.074	0.000	0.477	0.941	0.903	0.908	0.000	0.000	1.095	1.121	1.299	1.405	0.910	1.070	0.530	0.728	0.000	0.601	0.000	0.790	0.677	0.000	0.758	0.534
0.000	0.000	0.562	0.000	0.936	0.000	0.000	0.000	0.000	0.000	0.510	0.000	1.564	0.000	0.000	0.000	1.015	1.118	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.640	0.000	0.000	0.000	1.624	0.452
0.460	1.062	0.000	1.408	1.163	0.629	0.835	0.934	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.541	0.000	0.857	0.000	0.000	1.058	1.269	0.428	1.171	0.707	0.000	0.314	0.357	0.000	0.000	0.000
1.430	1.019	0.692	0.851	0.817	1.173	0.927	1.220	0.373	0.573	0.951	1.003	0.998	0.801	0.000	1.161	1.365	1.589	1.120	0.782	0.858	0.644	0.743	0.523	0.428	0.458	0.831	0.797	0.000	0.854	0.627
1.124	0.596	0.444	0.000	0.489	0.922	0.505	0.941	0.000	0.536	0.895	0.830	0.855	0.410	0.000	1.095	1.330	1.606	1.211	0.814	1.008	0.521	0.670	0.548	0.563	0.000	0.670	0.708	0.710	0.673	1.465
1.064	0.000	0.407	0.540	0.000	0.930	0.596	0.968	0.000	0.544	0.909	0.918	0.958	0.656	0.000	0.894	1.036	1.232	1.213	0.863	0.998	0.701	0.616	0.499	0.511	0.366	0.719	0.720	0.000	0.589	0.403
1.166	0.632	0.475	0.608	0.000	0.962	0.657	0.927	0.000	0.574	0.861	0.894	0.870	0.622	0.000	0.990	1.121	1.289	1.125	0.824	0.884	0.691	0.636	0.537	0.424	0.402	0.787	0.795	0.693	0.628	0.422
1.373	0.000	0.740	0.814	0.733	1.104	0.721	1.131	0.000	0.591	0.960	1.075	0.000	0.000	0.000	1.031	1.225	1.241	1.213	0.852	0.863	0.550	0.692	0.683	0.439	0.411	0.000	0.738	0.000	0.000	0.340
1.434	0.941	0.785	0.865	0.816	1.100	0.796	1.198	0.000	0.570	0.928	1.054	0.000	0.562	0.000	0.910	1.066	1.039	1.144	0.800	0.825	0.539	0.604	0.702	0.420	0.380	0.000	0.786	0.000	0.501	0.306
1.262	1.010	0.574	0.639	0.000	0.796	0.000	0.389	0.000	0.000	0.000	0.000	1.256	0.471	0.000	1.276	0.848	1.055	0.510	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.467	0.958	0.537	0.000	0.768	1.054	0.745	1.093	0.377	0.567	0.871	0.887	0.960	0.725	0.000	0.885	0.933	0.981	1.018	0.708	0.694	0.439	0.650	0.653	0.366	0.534	0.893	0.815	0.000	0.708	0.506
1.235	0.794	0.440	0.638	0.724	0.788	0.725	1.057	0.000	0.573	0.905	0.889	0.759	0.467	0.000	0.973	1.040	1.168	1.110	0.000	0.750	0.491	0.747	0.556	0.571	0.000	0.975	0.000	0.000	0.633	0.514
1.144	0.000	0.000	0.000	0.000	1.098	0.565	0.967	0.000	0.741	1.210	1.059	1.276	0.000	0.000	1.242	1.586	2.056	1.299	0.000	1.006	0.788	0.780	0.000	0.769	0.000	0.672	0.616	0.000	0.616	0.000
1.342	1.397	0.000	0.776	0.670	0.962	0.741	0.991	0.414	0.637	0.933	0.000	0.859	0.706	0.000	1.034	1.185	1.308	1.170	0.765	0.823	0.728	0.000	0.545	0.441	0.376	1.058	0.891	0.000	0.000	0.000

418.49	422.18	431.29	434.26	435.80	438.20	447.87	464.19	483.84	486.76	491.96	496.91
0.000	0.000	0.000	1.594	1.726	1.741	0.740	0.941	1.819	1.941	1.582	1.731
0.000	0.000	1.354	1.724	1.855	1.649	0.865	0.976	1.975	1.937	1.867	1.604
0.000	0.000	0.000	1.743	1.761	0.000	0.715	0.859	1.904	0.000	1.815	1.498
0.000	0.000	0.000	2.032	2.197	0.000	0.930	1.078	2.427	2.666	2.192	1.952
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	1.342	1.641	1.602	1.685	0.000	0.903	1.604	1.771	1.343	1.454
0.000	0.000	0.000	1.641	1.671	0.000	0.763	0.893	1.691	1.792	1.214	1.019
0.000	0.000	0.000	1.656	1.730	0.000	0.000	0.686	1.645	1.704	0.000	1.281
0.000	0.000	1.307	1.692	1.711	1.711	0.000	0.972	1.874	2.175	1.374	0.000
0.685	0.000	1.050	0.000	1.354	1.516	0.000	0.906	1.203	1.477	0.878	0.923
0.000	0.000	0.000	1.344	1.296	0.000	0.640	0.549	0.000	1.371	1.146	0.784
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	2.098	0.000	1.632	0.951	1.045	0.000	2.369	2.103	0.000
0.583	0.000	0.000	0.000	1.167	1.226	0.539	0.000	0.000	0.940	0.717	0.669
0.000	0.000	0.000	2.044	0.000	0.000	0.875	0.990	0.000	0.000	2.004	1.617
0.000	0.000	1.808	2.092	1.934	1.836	0.000	0.960	0.000	2.247	1.559	1.407
0.000	0.000	0.000	1.845	1.763	1.712	1.017	0.932	2.051	0.000	1.514	1.361
0.000	0.000	0.000	1.749	1.673	0.000	0.812	0.843	2.293	0.000	1.708	0.000
0.000	0.000	1.217	1.357	1.360	1.360	0.616	0.805	1.578	1.649	1.207	1.222
0.000	0.000	0.000	1.871	1.910	1.960	0.880	1.006	1.687	1.788	1.584	1.533
0.382	0.000	0.000	0.000	0.670	0.655	0.000	0.000	0.556	0.000	0.000	0.472
0.000	0.000	0.000	1.564	1.704	1.748	0.973	0.984	0.000	0.000	1.484	1.510
0.000	0.000	1.387	1.635	1.870	1.854	0.900	0.973	2.119	0.000	1.398	1.690
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	1.424	1.388	1.330	0.722	0.506	0.000	1.580	0.000	0.000
0.000	0.000	1.646	1.883	1.923	0.000	0.917	1.126	2.293	2.296	1.557	1.410
0.000	0.000	0.000	2.237	2.215	2.067	1.236	1.285	2.238	0.000	0.000	1.385
0.000	0.000	0.000	2.149	2.164	1.968	1.094	0.998	2.303	2.596	1.978	1.365
0.000	0.000	0.000	2.252	2.204	0.000	0.977	1.202	0.000	0.000	2.218	1.533
0.000	0.000	0.000	1.904	1.803	0.000	0.808	0.822	1.961	2.014	1.808	0.000
0.000	0.000	0.000	1.938	0.000	0.000	0.000	0.000	1.766	0.000	1.962	0.000
0.000	0.000	0.000	1.921	0.000	0.000	0.000	0.000	1.655	0.000	1.931	1.181
0.000	0.000	0.000	1.855	1.830	1.844	0.792	1.001	1.852	0.000	0.000	1.138
0.000	0.000	0.000	1.927	2.052	0.000	0.883	0.931	1.962	2.030	0.000	1.264
0.000	0.000	0.000	2.538	2.358	0.000	0.000	0.000	2.414	0.000	2.820	1.527
0.000	0.000	0.000	1.893	2.077	0.000	0.859	1.399	0.000	2.606	0.000	1.182
0.692	0.000	0.000	0.000	0.000	1.691	0.000	0.000	0.000	2.034	1.174	0.000
0.473	0.000	0.000	0.000	0.000	1.244	0.000	0.000	0.000	1.405	0.825	0.829
0.000	0.000	0.000	1.424	1.695	1.815	0.650	1.011	1.647	1.838	1.341	1.226
0.000	0.000	0.000	1.731	1.931	1.999	0.873	1.329	0.000	1.871	0.000	1.349
0.000	0.000	1.204	0.000	1.850	1.691	0.000	0.000	1.888	1.882	1.839	1.433
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.522	0.000	0.000
0.000	0.000	0.000	0.000	2.279	0.000	0.819	0.823	2.503	2.493	2.490	1.649
0.000	0.000	0.000	0.000	4.653	0.000	0.000	0.744	2.499	0.000	2.676	1.454
0.000	0.000	0.000	2.550	2.734	0.000	0.942	1.162	0.000	0.000	2.890	2.148
0.000	0.000	0.000	2.040	2.227	0.000	1.042	0.932	2.357	0.000	1.996	1.566
0.467	0.000	0.000	0.830	0.836	0.835	0.000	0.000	0.794	0.854	0.546	0.441
0.000	0.000	1.010	1.429	1.389	1.034	0.000	0.000	1.620	1.782	1.650	0.000
0.479	0.000	0.694	0.000	0.911	0.787	0.403	0.000	0.913	0.960	0.724	0.515
0.565	0.000	1.209	1.828	0.000	1.378	0.000	0.669	0.000	2.131	1.774	0.000
0.000	0.000	2.584	1.328	0.000	0.000	0.000	0.806	1.559	1.546	1.288	1.556
0.000	0.000	0.000	0.000	0.000	0.000	0.938	0.913	1.185	1.268	0.000	1.328
0.000	0.000	1.048	1.375	1.607	0.000	0.725	0.970	1.545	1.649	1.577	1.680
0.430	0.000	0.422	0.549	0.580	0.000	0.000	0.441	0.586	0.553	0.438	0.492
0.000	0.000	1.022	0.000	1.461	0.000	0.000	0.767	1.311	1.344	1.235	1.606
0.541	0.000	0.432	0.550	0.568	0.547	0.000	0.515	0.541	0.574	0.000	0.541
0.603	0.000	0.564	0.000	0.000	0.804	0.481	0.715	0.556	0.678	0.441	0.660
0.533	0.000	0.505	0.000	0.717	0.692	0.000	0.000	0.539	0.551	0.441	0.616
0.527	0.000	0.521	0.000	0.629	0.629	0.000	0.000	0.571	0.600	0.424	0.453
0.000	0.000	1.372	1.613	1.903	0.000	1.032	0.000	1.712	1.708	0.000	1.523
0.000	0.000	0.000	1.864	1.955	1.823	0.945	1.110	1.985	1.932	1.945	1.847
0.000	0.000	0.000	0.000	0.686	0.717	0.000	0.000	0.728	0.809	0.000	0.000
0.000	0.000	0.636	0.802	1.012	1.069	0.000	0.000	0.909	1.172	0.000	0.713
0.629	0.000	0.000	0.000	0.000	0.000	0.676	0.908	1.170	1.447	0.000	0.915
0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.318	1.654	2.082	1.259	1.335
0.641	0.000	1.206	0.000	1.700	1.618	0.000	0.000	1.753	2.709	0.000	1.104
0.620	0.000	0.650	0.000	0.965	0.917	0.411	0.000	1.045	1.357	0.000	0.000
0.569	0.000	0.000	0.000	1.431	1.448	0.663	0.000	1.419	1.855	0.000	0.864
0.644	0.000	1.151	0.000	1.574	1.672	0.000	0.000	1.493	1.927	0.000	1.151
0.564	0.000	0.763	0.000	1.028	1.113	0.428	0.000	1.092	1.289	0.000	0.832
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	1.377	0.000	1.526	1.767	0.000	0.000	1.832	0.000	0.000	1.683
0.312	0.000	1.484	0.000	1.942	2.258	0.000	0.000	1.603	0.000	0.000	1.530
0.339	0.000	1.513	0.000	0.000	2.105	0.000	0.000	1.874	0.000	0.000	1.481
0.000	0.000	1.303	0.000	1.736	1.881	0.525	0.000	1.862	0.000	0.000	1.260
0.484	0.000	0.986	0.000	1.607	1.903	0.758	0.000	1.713	0.000	0.000	1.118
0.000	0.000	1.442	0.000	0.000	2.041	0.000	0.000	1.680	0.000	0.000	0.000
0.629	0.000	0.546	0.000	1.380	0.000	1.045	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.524	0.000	0.707	0.000	0.000	0.000	0.933	0.000	0.000	0.000
0.464	0.000	1.250	0.000	0.000	2.059	0.000	0.000	1.987	0.000	0.000	1.502
0.000	0.000	1.077	0.000	0.000	1.991	0.602	0.000	1.790	1.742	0.000	1.240
0.359	0.000	0.000	0.000	0.000	1.998	0.869	0.000	0.000	0.000	0.000	1.299
0.319	0.000	1.273	0.000	0.000	2.221	0.910	0.000	2.233	0.000	0.000	1.459
0.287	0.000	1.270	0.000	1.432	1.842	0.000	0.000	1.778	1.488	0.000	1.720
0.285	0.000	1.331	0.000	1.558	1.930	0.000	0.000	1.912	0.000	0.000	1.814
0.666	0.000	0.000	0.910	0.000	0.684	1.979	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	2.325	0.000	0.000	0.000	0.000	0.000	1.453
0.000	0.000	0.000	1.302	0.000	2.300	0.670	0.000	2.194	0.000	0.000	1.622
0.000	0.000	0.000	0.000	1.167	1.658	0.000	0.000	0.000	0.000	0.000	0.970
0.000	0.000	0.607	0.543	0.441	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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Soil	Year	Study Site	Fence	Treatment	Veg type	Microb. Biomass	Root Biomass	Soil Temp	Soil Moisture	50.16	50.98	53.10	55.12	56.74	59.47	60.15	62.21	63.75	64.81	66.98	67.92	69.93	71.07	72.60	73.02
Mineral	2010	1	1	1	1	1042.8	793.56	15.00	23.34	1.395	1.401	0.544	0.566	0.538	1.175	1.781	1.506	2.013	1.554	1.677	1.837	1.329	0.000	0.000	0.786
Mineral	2010	1	1	2	1	926.2	772.40	14.84	24.09	1.161	1.209	0.500	0.477	0.411	1.404	1.588	1.373	1.943	1.460	1.644	1.723	1.265	0.000	0.000	0.735
Mineral	2010	1	1	3	1	811.6	839.65	14.63	24.00	1.349	1.354	0.558	0.594	0.540	1.306	1.708	1.445	2.077	1.487	1.645	1.801	1.372	0.000	0.000	0.869
Mineral	2010	1	1	4	1	1306.0	987.89	14.71	23.97	1.350	1.386	0.574	0.568	0.551	1.206	1.763	1.515	2.184	1.543	1.776	1.870	1.374	0.000	0.000	0.895
Mineral	2010	1	1	5	1	1156.0	792.45	13.20	26.60	1.301	1.345	0.480	0.484	0.421	1.193	1.699	1.451	2.109	1.517	1.805	1.753	1.388	0.000	0.000	0.936
Mineral	2010	1	2	1	2	1325.0	1258.80	12.91	20.54	1.382	1.460	0.507	0.497	0.000	1.248	1.833	1.544	2.345	1.658	2.045	2.027	1.392	0.000	0.000	0.926
Mineral	2010	1	2	2	2	1120.7	1301.95	12.21	16.40	1.084	1.235	0.364	0.390	0.333	1.492	1.477	1.453	1.896	1.477	1.789	1.758	1.211	0.000	0.000	0.641
Mineral	2010	1	2	3	2	698.0	1110.40	11.70	15.54	0.908	1.026	0.376	0.377	0.341	0.727	1.319	1.273	1.664	1.292	1.550	1.411	1.141	0.000	0.000	0.597
Mineral	2010	1	2	4	2	669.2	1211.33	11.81	20.91	1.055	1.175	0.475	0.540	0.437	0.854	1.436	1.422	1.797	1.423	1.634	1.610	1.209	0.000	0.000	0.619
Mineral	2010	1	2	5	2	1039.1	921.12	11.17	23.69	1.034	1.156	0.430	0.462	0.425	0.801	1.482	1.457	1.903	1.496	1.751	1.694	1.350	0.000	0.000	0.692
Mineral	2010	1	3	1	1	1385.4	663.05	14.73	21.14	1.285	1.328	0.628	0.716	0.604	1.559	2.019	1.608	2.403	1.914	1.933	2.285	1.725	0.000	0.000	1.166
Mineral	2010	1	3	2	1	1387.0	769.98	14.67	20.43	0.990	1.042	0.506	0.480	0.374	1.343	1.540	1.377	1.823	1.432	1.533	1.708	1.171	0.279	0.000	0.727
Mineral	2010	1	3	3	1	787.1	581.01	14.69	29.43	0.876	0.904	0.409	0.333	0.312	1.070	1.293	1.155	1.425	1.118	1.228	1.248	0.876	0.376	0.000	0.503
Mineral	2010	1	3	4	1	1257.6	713.57	15.44	17.74	0.884	0.927	0.477	0.457	0.316	1.038	1.329	1.264	1.659	1.335	1.437	1.464	0.966	0.394	0.000	0.577
Mineral	2010	1	3	5	1	966.0	953.16	13.66	26.74	1.387	1.509	0.510	0.505	0.495	1.589	1.870	1.692	2.149	1.728	2.006	1.952	1.483	0.000	0.000	0.869
Mineral	2010	1	4	1	2	1098.6	1591.85	12.14	22.94	1.088	1.181	0.469	0.525	0.338	1.175	1.535	1.454	1.917	1.453	1.727	1.626	1.235	0.000	0.000	0.681
Mineral	2010	1	4	2	2	720.1	1013.42	11.80	22.23	1.052	1.179	0.447	0.478	0.424	0.944	1.420	1.411	1.812	1.395	1.773	1.627	1.315	0.000	0.000	0.783
Mineral	2010	1	4	3	2	508.3	1407.83	12.29	18.80	1.037	1.159	0.394	0.418	0.413	0.912	1.411	1.417	1.780	1.419	1.779	1.667	1.332	0.000	0.000	0.696
Mineral	2010	1	4	4	2	1336.6	1223.86	11.99	20.80	0.982	1.146	0.409	0.403	0.386	0.918	1.510	1.459	1.900	1.584	1.747	1.817	1.235	0.254	0.000	0.740
Mineral	2010	1	4	5	2	892.5	1096.25	11.91	20.60	0.976	1.108	0.449	0.499	0.484	0.876	1.471	1.465	1.849	1.433	1.672	1.582	1.279	0.000	0.000	0.661
Mineral	2010	2	5	1	1	645.3	965.63	13.56	32.91	1.196	1.325	0.451	0.507	0.463	2.116	2.003	1.543	1.954	1.582	1.794	1.794	1.362	0.000	0.000	0.770
Mineral	2010	2	5	2	1	979.9	961.90	12.30	25.69	1.166	1.287	0.379	0.415	0.000	1.864	1.738	1.613	2.077	1.652	1.964	1.885	1.309	0.000	0.000	0.764
Mineral	2010	2	5	3	1	946.2	704.04	12.56	34.77	1.240	1.337	0.475	0.461	0.323	1.281	1.726	1.526	2.027	1.571	1.856	1.858	1.343	0.000	0.000	0.767
Mineral	2010	2	5	4	1	512.0	629.16	12.47	35.66	1.238	1.372	0.445	0.457	0.366	1.299	1.614	1.529	2.045	1.555	1.781	1.817	1.271	0.000	0.000	0.763
Mineral	2010	2	5	5	1	531.8	519.81	12.41	32.11	1.342	1.499	0.000	0.000	0.000	3.791	1.669	1.544	2.064	1.555	1.906	1.859	1.107	0.000	0.000	0.818
Mineral	2010	2	6	1	2	1544.9	1228.07	13.73	16.14	1.116	1.159	0.485	0.439	0.443	1.050	1.488	1.256	1.863	1.478	1.610	1.722	1.204	0.000	0.000	0.835
Mineral	2010	2	6	2	2	1355.3	980.68	12.74	21.31	0.987	1.013	0.417	0.346	0.328	1.350	1.356	1.185	1.647	1.252	1.445	1.529	0.924	0.240	0.000	0.627
Mineral	2010	2	6	3	2	1458.1	838.48	12.73	18.74	0.997	1.171	0.499	0.549	0.511	0.804	1.387	1.318	1.818	1.468	1.721	1.631	1.170	0.000	0.000	0.639
Mineral	2010	2	6	4	2	1219.8	992.10	12.60	16.31	0.956	0.969	0.000	0.000	0.000	0.000	3.934	0.873	1.022	0.748	0.802	0.922	0.000	0.341	0.000	0.462
Mineral	2010	2	6	5	2	718.7	1332.21	12.10	25.34	1.264	1.307	0.000	0.000	1.091	0.000	3.623	0.399	0.567	0.414	0.390	0.000	0.000	0.000	0.000	0.000
Mineral	2010	3	7	1	1	1225.4	1227.80	12.26	25.23	0.520	0.514	0.000	0.000	0.448	0.000	0.000	0.623	0.457	0.299	0.000	0.729	0.000	0.665	0.000	0.000
Mineral	2010	3	7	2	1	538.6	891.33	12.41	32.51	0.610	0.522	0.000	0.000	0.493	2.585	0.000	0.522	0.673	0.000	0.000	0.000	0.000	0.814	0.000	0.000
Mineral	2010	3	7	3	1	786.6	1332.73	11.53	32.63	0.503	0.561	0.000	0.000	0.363	0.000	0.678	0.644	0.733	0.000	0.000	0.862	0.472	0.535	0.000	0.000
Mineral	2010	3	7	4	1	694.7	1467.29	11.99	31.77	0.545	0.422	0.000	0.000	0.229	2.111	0.000	0.670	0.543	0.000	0.000	0.846	0.000	0.647	0.000	0.000
Mineral	2010	3	7	5	1	247.0	1664.89	11.64	34.09	0.650	0.637	0.000	0.267	0.000	1.710	0.665	0.637	0.916	0.000	0.000	0.880	0.000	0.832	0.000	0.710
Mineral	2010	3	8	1	2	474.4	1411.14	11.54	32.69	0.581	0.364	0.000	0.000	0.000	1.681	0.911	0.808	0.722	0.000	0.449	0.845	0.000	0.762	0.000	0.649
Mineral	2010	3	8	2	2	909.0	1011.94	10.81	33.14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mineral	2010	3	8	3	2	753.3	1159.45	10.13	33.66	0.648	0.624	0.268	0.000	0.000	0.000	0.000	0.763	0.807	0.592	0.646	0.997	0.000	0.896	0.000	0.000
Mineral	2010	3	8	4	2	394.5	911.38	10.11	40.91	0.801	0.787	0.000	0.277	0.000	0.000	0.000	0.734	0.903	0.000	0.000	0.667	0.000	0.952	0.000	0.769
Mineral	2010	3	8	5	2	891.2	902.22	10.43	36.89	0.588	0.563	0.000	0.000	1.594	0.000	0.000	0.719	0.695	0.507	0.000	0.690	0.000	0.951	0.000	0.679
Mineral	2010	4	9	1	1	464.6	487.50	15.61	14.60	1.491	1.482	0.000	0.000	0.000	0.000	1.101	1.667	1.644	2.086	2.114	2.190	1.089	0.826	0.000	1.141
Mineral	2010	4	9	2	1	1100.9	387.52	14.23	22.91	0.613	0.487	0.000	0.000	0.000	0.000	0.537	0.777	0.767	0.849	0.693	0.863	0.000	0.620	0.000	0.000
Mineral	2010	4	9	3	1	685.7	691.63	15.34	17.09	0.277	0.275	0.000	0.000	1.002	0.905	0.654	0.675	0.482	0.716	0.506	0.715	0.274	0.594	0.000	0.596
Mineral	2010	4	9	4	1	516.4	1306.95	14.93	20.37	0.355	0.372	0.000	0.000	0.000	1.099	0.476	0.727	0.689	0.721	0.629	0.714	0.286	0.593	0.000	0.602
Mineral	2010	4	9	5	1	467.3	757.83	13.96	26.06	0.396	0.366	0.000	0.000	1.661	0.000	0.000	0.600	0.468	0.657	0.398	0.683	0.405	0.551	0.000	0.586
Mineral	2010	4	10	1	2	977.4	1051.15	13.74	17.43	0.898	0.963	0.000	0.000	1.445	0.000	0.000	0.716	0.879	1.035	0.000	1.258	0.529	0.439	0.000	0.593
Mineral	2010	4	10	2	2	1389.2	961.74	13.70	23.09	0.477	0.558	0.309	0.000	0.000	0.000	1.127	0.594	0.840	0.996	0.800	1.158	0.350	0.436	0.000	0.512
Mineral	2010	4	10	3	2	933.9	2044.88	13.19	23.60	1.010	1.213	0.423	0.332	0.270	0.794	1.198	1.193	1.611	1.679	1.099	1.778	0.515	0.556	0.000	0.350
Mineral	2010	4	10	4	2	648.0	1588.53	13.41	22.46	0.294	0.360	0.000	0.000	0.000	0.882	0.500	0.670	0.630	0.583	0.470	0.570	0.000	0.599	0.000	0.715
Mineral	2010	4	10	5	2	540.2	624.43	11.63	28.63	0.334	0.334	0.283	0.000	0.599	1.066	0.635	0.750	0.594	0.702	0.443	0.695	0.000	0.671	0.000	0.672
Mineral	2010	5	11	1	1	891.5	999.16	15.30	25.60	0.279	0.341	0.000	0.000	0.000	0.985	0.567	0.937	0.655	0.709	0.000	0.615	0.000	0.802	0.000	0.805
Mineral	2010	5	11	2	1	653.1	732.15	15.57	18.71	0.236	0.341	0.000	0.000	0.338	1.284	0.830	0.846	0.915	0.885	0.636	0.682	0.000	1.056	0.000	1.012
Mineral	2010	5	11	3	1	953.6	624.53	15.47	22.26	0.565	0.585	0.245	0.214	0.353	0.000	1.394	1.167	0.969	1.008	1.012	0.867	0.558	0.788	0.000	0.752
Mineral	2010	5	11	4	1	1013.9	1135.24	15.67	19.71	0.476	0.418	0.191	0.228	0.399	0.739	0.981	1.037	0.992	1.011	0.972	0.909	0.535	0.872	0.000	0.760
Mineral	2010	5	11	5	1	1238.4	1272.95	14.77	28.29	0.523	0.599	0.207	0.198	0.219	0.000	0.836	1.046	0.720	0.918	1.073	1.020	0.000	0.694	0.000	0.725
Mineral	2010	5	12	1	2	920.4	644.11	15.77	21.34	0.521	0.611	0.207	0.238	0.184	0.723	0.763	1.092	1.063	0.996	1.036	1.021	0.000	0.812	0.000	0.000
Mineral	2010	5	12	2	2	690.7	1538.38	15.77	19.57	0.585	0.631	0.350	0.285	0.217	0.308	0.763	0.939	1.051	0.930	0.908	0.762	0.814	1.365	0.000	1.171
Mineral	2010	5	12	3	2	893.3	1387.94	14.40	15.26	0.605	0.645	0.000	0.000	0.230	0.809	0.711	0.883	0.933	0.940	0.861	0.967	0.521	0.688	0.000	0.647
Mineral	2010	5	12	4	2	527.8	1547.65	15.86	19.97	0.558	0.525	0.336	0.341	0.201	0.716	0.764	0.925	1.196	1.027	1.172	1.090	0.581	0.820	0.000	0.750
Mineral	2010	5	12	5	2	833.1	786.03	13.97	20.17	0.455	0.514	0.370	0.337	0.270	0.770	0.708	0.830	1.028	1.049	1.030	1.043	0.575	0.970	0.000	0.772
Mineral	2010	5	13	1	1	632.4	993.63	14.19	20.14	0.570	0.720	0.341	0.353	0.258	0.000	1.254	0.641	0.883	0.810	0.957	0.910	0.000	0.653	0.000	0.000
Mineral	2010	5	13	2	1	544.0	1504.97	14.67	22.14	0.438	0.421	0.000	0.000	0.000	0.000	1.050	0.938	0.911	0.953	0.741	0.721	0.650	0.635	0.000	0.728
Mineral	2010	5	13	3	1	401.5	1106.98	14.39	22.20	0.565	0.675	0.000	0.162	0.000	0.610	0.874	0.963	0.895	0.866	0.961	0.968	0.700	1.162	0.000	0.932
Mineral	2010	5	13	4	1	637.8	826.08	13.57	21.77	0.426	0.440	0.313	0.311	0.000	0.756	0.808	0.799	0.875	0.801	0.856	0.782	0.416	0.641	0.000	0.607
Mineral	2010	5	13	5	1	577.3	850.65	13.89	29.14	0.528	0.546	0.000	0.000	0.155	1.038	0.934	1.102	0.834	1.008	1.081	1.110	0.573	0.943	0.000	0.820
Mineral	2010	5	14	1	2	451.7	1973.16	13.56	27.06	0.348	0.529	0.340	0.362	0.199	0.402	0.692	0.745	0.844	0.761	0.771	0.681	0.000	0.782	0.000	0.607
Mineral	2010	5	14	2	2	870.3	1070.62	12.44	21.77	0.512	0.412	0.338	0.308	0.214	0.532	0.753	0.876	0.880	0.937	1.037	1.147	0.531	0.815	0.000	0.616
Mineral	2010	5	14	3	2	545.2	849.76	11.90	19.43	0.591	0.662	0.193	0.000	0.000	0.602	0.775	0.879	1.125	1.140	1.007	1.331	0.000	0.870	0.000	0.668
Mineral	2010	5	14	4	2	707.4	1266.59	11.24	21.49	0.614	0.719	0.235	0.000	0.000	0.000	1.384	0.832	0.889	0.964	0.973	1.199	0.450	0.946	0.000	0.815
Mineral	2010	5	14	5	2	497.6	1161.13	11.47	25.46	0.490	0.537	0.479	0.479	0.314	0.713	0.772	0.659	0.672	0.826	0.889	0.981	0.000	0.741	0.000	0.625
Mineral	2010	6	15	1	1	1008.4	355.68	11.79	35.51	0.423	0.531	0.291	0.288	0.191	0.000	1.064	1.004	0.802	0.972	1.108	1.078	0.750	0.775	0.000	0.893
Mineral	2010	6	15	2	1	995.9	404.72	12.26	35.57	0.845	1.014	0.427	0.392	0.310	1.172	1.578	1.435	1.727	1.149	1.380	1.170	1.124	0.000	0.000	0.572
Mineral	2010	6	15	3	1	447.8	453.14	13.36	32.00	0.419	0.425	0.191	0.165	0.189	0.792	0.661	0.814	0.510	0.970	0.993	1.118	0.510	0.763	0.000	0.000
Mineral	2010	6	15	4	1	592.8	533.76	11.49	40.37	0.407	0.392	0.247	0.206	0.139	0.000	0.916	0.975	0.704	0.849	0.933	0.827	0.523	0.882	0.000	0.952
Mineral	2010	6	15	5	1	437.7	877.07	10.44	42.91	0.481	0.470	0.000	0.000	0.172	0.590	0.782	0.915	0.776	0.973	0.982	0.938	0.479	0.943	0.000	0.877
Mineral	2010	6	16	1	2	297.5	1317.00	11.24	41.51	0.470	0.482	0.262	0.235	0.172	0.648	0.742	0.868	0.960	1.166	1.156	1.237	1.372	0.847	0.000	0.976
Mineral	2010	6	16	2	2	473.7	872.54	11.73	41.51	0.712	0.874	0.274	0.294	0.359	0.000	2.049	1.060	1.050	0.942	1.024	1.014	0.666	0.905	0.000	0.825
Mineral	2010	6	16	3	2	184.6	1751.09	10.94	49.71	0.709	0.911	0.239	0.231	0.000	0.000	1.422	1.036	0.907	1.062	0.915	1.017	0.484	0.886	0.000	1.170
Mineral	2010	6	16	4	2	427.2	836.76	11.20	42.89	0.625	0.693	0.284	0.284	0.000	0.000	1.813	1.310	1.195	1.074	1.063	1.022	0.524	1.131	0.000	1.456
Mineral	2010	6	16	5	2	306.9	883.81	11.19	36.40	0.580	0.626	0.256	0.249	0.192	0.000	1.216	1.010	0.851	0.992	0.881	0.971	0.499	1.080	0.000	1.143
Mineral	2010	6	17	1	1	374.4	553.49	14.47	22.97	0.562	0.624	0.239	0.230	0.000	0.540	0.948	0.783	0.921	0.920	0.979	1.016	0.428	0.731	0.000	0.853
aMineral	2010	6	17	2	1	505.2	416.25	14.10	21.37	0.604	0.696	0.214	0.270	0.255	0.692	1.227	0.960	0.818	0.865	0.892	0.896	0.563	0.670	0.000	0.987
Mineral	2010	6	17	3	1	358.2	544.91	12.77	31.71	0.612	0.684	0.000	0.000	0.000	0.642	1.408	0.890	1.091	0.944	0.932	0.910	0.000	0.851	0.000	1.303
Mineral	2010	6	17	4	1	328.8	321.69	11.96	29.06	0.505	0.598	0.167	0.175	0.000	0.539	1.369	0.993	0.851	1.342	0.829	0.847	0.537	0.711	0.000	1.104
Mineral	2010	6	17	5	1	701.0	558.33	13.00	25.46	0.496	0.560	0.000	0.000	0.000	0.000	1.347	0.957	0.802	0.822	0.901	0.800	0.615	0.748	0.000	0.967
Mineral	2010	6	18	1	2	394.8	645.21	13.24	34.51	0.597	0.664	0.263	0.202	0.212	0.548	1.253	1.476	1.404	1.097	1.085	1.121	0.649	1.026	0.000	1.137
Mineral	2010	6	18	2	2	568.1	542.39	12.11	38.49	0.617	0.644	0.306	0.292	0.198	0.000	1.218	0.961	0.956	0.936	1.017	0.972	0.519	0.929	0.000	0.922
Mineral	2010	6	18	3	2	307.8	521.02	11.00	34.83	0.577	0.637	0.169	0.000	0.000	0.555	1.174	1.068	0.959	1.024	0.924	0.990	0.487	1.005	0.000	1.031
Mineral	2010	6	18	4	2	325.6	848.65	11.81	30.74	0.537	0.578	0.356	0.324	0.237	0.741	1.146	0.973	0.699	0.877	0.765	0.866	0.674	1.109	0.000	1.176
Mineral	2010	6	18	5	2	283.3	972.58	10.96	44.80	0.491	0.639	0.343	0.309	0.253	0.476	0.943	1.016	0.812	0.954	0.849	0.884	0.557	1.158	0.000	1.013

80.71	83.81	84.87	87.25	88.43	90.13	91.01	94.18	103.78	104.79	106.53	108.73	109.93	120.76	121.91	124.15	125.19	127.49	130.96	134.07	137.62	138.78	140.42	142.49	144.41	146.07	148.11	151.74	157.52	160.34	163.24
0.645	0.912	2.681	1.900	2.939	0.000	0.000	0.303	0.000	1.485	0.725	0.475	0.536	0.406	0.377	0.409	0.718	0.701	0.435	0.560	0.847	1.175	0.630	0.605	0.697	1.144	1.097	0.364	0.535	0.359	0.000
0.594	0.801	2.553	1.780	2.869	0.000	0.000	0.274	0.000	1.305	0.756	0.510	0.603	0.338	0.396	0.409	0.752	0.682	0.404	0.596	0.858	1.045	0.650	0.613	0.852	1.102	1.144	0.000	0.556	0.450	0.286
0.500	0.840	2.600	1.868	3.067	0.000	0.000	0.275	0.000	1.487	0.814	0.561	0.630	0.434	0.416	0.433	0.740	0.602	0.297	0.553	0.702	0.937	0.529	0.541	0.668	1.086	1.055	0.000	0.551	0.340	0.000
0.541	0.871	2.811	1.961	3.247	0.000	0.000	0.326	0.000	1.596	0.841	0.605	0.640	0.307	0.000	0.000	0.641	0.618	0.326	0.000	0.476	0.729	0.000	0.352	0.471	0.820	0.852	0.000	0.383	0.000	0.000
0.775	0.872	2.607	1.835	3.030	0.000	0.000	0.000	0.000	1.480	0.736	0.500	0.562	0.380	0.410	0.398	0.707	0.779	0.515	0.000	0.770	0.994	0.000	0.515	0.584	0.993	1.127	0.000	0.480	0.339	0.000
1.017	1.271	2.404	1.994	3.298	0.000	0.000	0.000	0.000	1.624	0.914	0.649	0.734	0.433	0.466	0.623	0.763	0.799	0.375	0.000	0.724	1.001	0.000	0.507	0.632	1.364	1.308	0.604	0.608	0.433	0.000
0.311	0.711	2.425	1.950	2.810	0.000	0.319	0.000	0.000	1.140	0.536	0.424	0.433	0.283	0.411	0.487	0.760	0.838	0.386	0.650	0.830	0.978	0.684	0.514	0.664	1.237	1.422	0.829	0.865	0.707	0.409
1.114	1.247	2.265	1.758	2.370	0.000	0.275	0.278	0.000	0.939	0.597	0.432	0.430	0.389	0.443	0.000	0.799	0.769	0.365	0.803	0.961	1.182	0.763	0.593	0.890	1.424	1.269	0.595	0.711	0.583	0.000
0.886	0.803	2.449	1.952	2.588	0.000	0.000	0.220	0.000	1.090	0.612	0.494	0.522	0.294	0.356	0.467	0.865	0.758	0.328	0.845	0.872	1.161	0.719	0.540	0.782	1.298	1.246	0.550	0.715	0.505	0.000
0.653	0.794	2.490	1.963	2.685	0.000	0.000	0.239	0.000	1.098	0.642	0.505	0.502	0.357	0.519	0.498	0.692	0.853	0.368	0.545	0.912	1.058	0.750	0.526	0.709	1.313	1.273	0.653	0.702	0.550	0.357
0.000	0.779	3.087	2.119	3.232	0.000	0.000	0.326	0.000	1.544	0.697	0.505	0.586	0.322	0.000	0.000	0.438	0.349	0.309	0.000	0.000	0.357	0.000	0.000	0.000	0.435	0.380	0.000	0.297	0.000	0.000
0.611	0.770	2.303	1.660	2.412	0.000	0.581	0.392	0.000	1.206	0.616	0.425	0.520	0.372	0.566	0.000	0.881	1.093	0.583	0.656	1.104	1.344	0.974	0.000	0.865	1.519	1.729	0.793	0.855	0.660	0.586
1.925	2.082	2.068	1.403	2.089	0.000	0.393	0.280	0.000	1.060	0.644	0.476	0.496	0.455	0.539	0.547	0.802	0.823	0.460	0.648	1.031	1.367	0.900	0.841	0.948	1.341	1.385	0.724	0.692	0.664	0.546
0.756	0.767	2.053	1.524	2.215	0.000	0.533	0.365	0.000	0.974	0.535	0.362	0.403	0.375	0.642	0.000	0.958	1.091	0.605	0.714	1.208	1.504	1.018	0.958	0.962	1.661	1.744	0.848	0.874	0.773	0.657
0.608	0.934	2.986	2.426	3.556	0.000	0.000	0.000	0.000	1.594	0.662	0.512	0.512	0.362	0.000	0.000	0.633	0.629	0.000	0.000	0.582	0.869	0.514	0.471	0.481	0.831	0.858	0.000	0.362	0.000	0.000
0.245	0.709	2.498	2.021	2.846	0.000	0.410	0.281	0.000	1.219	0.758	0.602	0.557	0.374	0.366	0.483	0.763	0.726	0.370	0.539	0.814	1.076	0.730	0.557	0.671	1.171	1.108	0.512	0.677	0.529	0.000
1.113	1.241	2.468	1.951	2.456	0.000	0.000	0.213	0.000	1.199	0.650	0.484	0.444	0.434	0.464	0.000	0.698	0.804	0.383	0.629	0.850	1.007	0.680	0.586	0.761	1.216	1.295	0.617	0.696	0.525	0.000
1.029	0.986	2.439	1.967	2.457	0.000	0.347	0.231	0.000	1.130	0.635	0.527	0.533	0.394	0.394	0.537	0.779	0.699	0.364	0.679	0.848	1.126	0.726	0.654	0.836	1.254	1.154	0.460	0.583	0.475	0.294
0.505	0.772	2.513	1.973	2.618	0.000	0.331	0.288	0.000	1.134	0.637	0.474	0.483	0.378	0.426	0.517	0.849	0.794	0.372	0.583	0.936	1.235	0.804	0.652	0.718	1.256	1.241	0.534	0.629	0.509	0.446
1.331	1.508	2.509	1.866	2.550	0.000	0.283	0.254	0.000	1.089	0.621	0.487	0.464	0.426	0.434	0.490	0.707	0.678	0.301	0.602	0.800	0.956	0.625	0.581	0.765	1.168	1.251	0.565	0.587	0.417	0.247
0.598	0.810	2.724	2.104	2.983	0.000	0.000	0.000	0.000	1.307	0.615	0.402	0.457	0.000	0.000	0.000	0.751	0.584	0.000	0.817	0.862	1.198	0.763	0.571	0.932	1.096	1.077	0.000	0.427	0.000	0.000
0.584	0.835	2.671	2.140	3.029	0.000	0.353	0.000	0.000	1.257	0.728	0.529	0.495	0.373	0.394	0.458	0.764	0.721	0.394	0.540	0.802	1.111	0.767	0.499	0.796	0.923	0.933	0.000	0.000	0.391	0.000
0.719	1.002	2.747	2.143	3.100	0.000	0.000	0.304	0.000	1.409	0.655	0.455	0.477	0.353	0.333	0.408	0.714	0.690	0.414	0.524	0.805	1.005	0.693	0.503	0.845	0.938	0.963	0.000	0.450	0.372	0.000
0.611	0.867	2.635	2.026	2.982	0.000	0.000	0.000	0.000	1.465	0.776	0.619	0.598	0.383	0.000	0.369	0.809	0.659	0.402	0.746	0.000	1.253	0.744	0.607	0.743	0.944	0.908	0.000	0.417	0.343	0.000
0.000	0.888	2.675	2.080	3.133	0.000	0.000	0.000	0.000	1.379	0.000	0.000	0.000	0.000	0.000	0.000	0.680	0.000	0.000	0.000	0.674	1.145	0.000	0.000	0.000	1.039	0.868	0.000	0.000	0.000	0.000
0.725	0.935	2.246	1.507	2.286	0.000	0.299	0.266	0.000	1.282	0.681	0.483	0.483	0.536	0.539	0.615	0.798	0.852	0.436	0.546	0.923	1.156	0.809	0.635	0.766	1.480	1.333	0.731	0.688	0.673	0.666
0.959	1.040	2.142	1.558	2.385	0.000	0.000	0.238	0.000	1.078	0.562	0.403	0.399	0.489	0.565	0.605	0.756	0.887	0.439	0.514	1.025	1.456	0.963	0.830	0.856	1.511	1.377	0.768	0.668	0.698	0.688
1.156	0.946	2.563	1.945	2.457	0.000	0.000	0.000	0.000	1.152	0.743	0.554	0.351	0.459	0.465	0.539	0.781	0.837	0.407	0.542	0.892	1.321	0.736	0.686	0.714	1.278	1.369	0.616	0.527	0.428	0.451
1.666	2.108	1.341	0.956	1.617	0.000	0.501	0.000	0.000	0.914	0.000	0.000	0.000	0.497	0.561	0.647	0.665	0.000	0.000	0.394	0.818	1.140	0.913	0.812	0.747	1.172	1.218	0.991	0.525	0.868	1.014
1.914	2.469	1.216	0.749	1.164	0.000	0.504	0.343	0.000	1.124	0.000	0.000	0.299	0.543	0.557	0.657	0.639	0.000	0.368	0.000	0.838	1.228	0.000	0.923	0.778	1.120	1.184	0.861	0.493	0.810	0.994
1.201	1.244	0.925	0.551	0.758	0.000	0.693	0.953	0.000	0.555	0.000	0.000	0.000	0.481	0.901	1.106	1.176	1.371	1.217	0.503	1.068	1.307	1.402	0.915	1.151	1.243	1.394	1.907	0.598	1.110	1.055
1.484	2.090	0.000	0.487	0.541	0.000	0.551	0.631	0.000	0.461	0.000	0.000	0.000	0.435	0.570	0.799	0.000	0.000	0.523	0.573	1.197	1.546	1.531	0.983	1.159	1.470	1.234	0.912	0.551	1.033	1.141
1.450	1.841	1.020	0.552	0.793	0.000	0.541	0.694	0.000	0.717	0.000	0.000	0.000	0.481	0.718	0.837	0.861	0.000	0.816	0.654	1.265	1.546	1.607	0.972	1.104	1.326	1.378	1.377	0.646	1.218	1.302
1.437	1.949	0.000	0.467	0.459	0.000	0.605	0.723	0.000	0.335	0.227	0.000	0.000	0.410	0.581	0.777	0.000	0.000	0.542	0.647	1.286	1.688	1.583	1.060	1.236	1.387	1.292	1.072	0.636	1.092	0.000
2.377	2.549	0.000	0.000	0.703	0.000	0.467	0.438	0.000	0.500	0.000	0.000	0.000	0.415	0.557	0.701	0.735	1.062	0.528	0.000	1.168	1.349	1.277	0.926	1.265	1.429	1.152	0.792	0.601	0.936	0.981
1.226	1.405	0.000	0.408	0.397	0.000	0.687	0.000	0.000	0.000	0.000	0.000	0.000	0.355	0.649	0.801	0.870	0.000	0.648	0.552	1.214	1.410	1.448	0.860	1.127	1.405	1.724	2.011	0.000	1.074	1.206
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.972	1.026	0.843	0.458	0.638	0.000	0.581	0.779	0.000	0.493	0.000	0.300	0.000	0.000	0.715	0.901	0.839	1.158	0.800	0.548	1.138	1.431	0.824	0.000	1.160	1.215	1.535	1.772	0.000	1.097	1.030
1.611	2.037	0.876	0.450	0.736	0.000	0.563	0.657	0.000	0.601	0.000	0.000	0.000	0.411	0.588	0.642	0.723	0.965	0.509	0.682	1.243	1.406	1.309	0.890	1.198	1.282	1.334	1.084	0.530	0.969	0.949
1.265	1.119	1.293	0.560	0.816	0.000	0.676	0.895	0.000	0.554	0.000	0.000	0.000	0.329	0.655	0.705	0.768	0.984	0.666	0.704	1.230	1.472	1.413	1.052	1.233	1.267	1.345	1.323	0.000	0.937	0.969
0.503	0.872	2.981	1.894	4.234	0.000	0.000	0.000	0.000	1.523	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.415	0.000	0.000	0.000	0.000	0.000
1.149	1.254	1.289	0.725	0.983	0.000	0.561	0.634	0.000	0.460	0.000	0.000	0.000	0.332	0.641	0.743	0.932	1.099	0.000	0.692	1.354	1.646	0.000	1.281	1.224	1.508	1.769	1.255	0.813	1.061	1.142
1.973	2.028	0.000	0.000	0.634	0.000	0.830	0.723	0.000	0.314	0.000	0.000	0.000	0.382	0.500	0.699	0.689	1.127	0.523	0.717	1.091	1.215	1.026	0.913	1.029	1.350	1.303	0.948	0.631	0.923	0.829
2.113	3.075	1.338	0.809	0.898	0.000	0.588	0.513	0.000	0.362	0.313	0.000	0.000	0.468	0.635	0.852	0.761	1.130	0.582	0.815	1.166	1.427	1.114	1.076	1.100	1.469	1.436	1.041	0.697	0.949	0.797
1.724	2.617	1.525	0.000	0.982	0.000	0.669	0.622	0.000	0.412	0.000	0.000	0.000	0.000	0.550	0.744	0.770	0.933	0.643	0.684	1.158	1.330	1.162	0.972	0.994	1.384	1.294	0.906	0.602	0.759	0.643
1.056	1.327	1.304	0.697	1.211	0.000	0.298	0.379	0.000	0.740	0.000	0.000	0.000	0.000	0.504	0.799	0.820	1.060	0.747	0.597	1.171	1.583	1.327	1.182	1.098	1.352	1.485	1.266	0.916	1.087	0.958
1.173	1.733	1.133	0.655	0.908	0.000	0.343	0.387	0.000	0.463	0.387	0.000	0.360	0.504	0.637	1.064	0.876	1.132	0.713	0.556	1.212	1.725	1.331	1.488	1.109	1.363	1.624	1.269	0.671	1.084	1.010
2.210	2.746	0.000	0.368	0.539	0.000	0.622	0.000	0.000	0.871	0.843	0.559	0.757	0.540	0.732	0.915	0.585	0.000	0.000	0.551	0.960	1.312	0.925	0.814	0.813	1.191	1.407	0.776	0.000	0.633	0.638
2.268	2.392	0.000	0.766	0.656	0.000	0.559	0.425	0.000	0.206	0.242	0.000	0.000	0.395	0.573	0.703	0.720	0.910	0.559	0.670	1.202	1.430	1.187	1.041	1.093	1.382	1.373	0.941	0.676	0.928	0.791
2.079	2.669	0.000	0.666	0.549	0.000	0.443	0.356	0.000	0.000	0.000	0.000	0.000	0.374	0.545	0.748	0.688	1.070	0.000	0.720	1.248	1.541	1.224	1.089	1.166	1.332	1.370	0.895	0.635	0.930	0.846
0.772	0.667	0.928	0.493	0.649	0.000	0.520	0.628	0.000	0.249	0.220	0.000	0.000	0.410	0.685	0.794	0.890	1.239	0.708	0.832	1.422	1.749	1.564	1.266	1.376	1.547	1.830	1.610	0.856	1.376	1.144
0.519	0.389	0.663	0.277	0.435	0.000	0.444	0.543	0.000	0.230	0.238	0.000	0.000	0.532	0.716	0.880	0.856	1.192	0.000	0.778	1.457	1.995	1.613	1.422	1.612	1.455	1.810	1.495	0.915	1.372	1.197
0.379	0.475	1.230	1.186	1.227	0.000	0.500	0.332	0.000	0.432	0.408	0.443	0.291	0.493	0.633	0.000	0.973	1.128	0.697	1.236	1.640	1.604	1.360	1.000	1.458	1.609	1.804	1.155	1.079	1.171	0.000
0.459	0.347	1.008	0.914	0.917	0.000	0.464	0.328	0.000	0.370	0.555	0.428	0.325	0.615	0.715	1.028	1.025	1.330	0.000	1.180	1.594	1.767	1.472	1.130	1.336	1.613	1.797	1.344	1.065	1.189	0.940
0.650	0.678	1.142	1.045	1.061	0.000	0.568	0.438	0.000	0.372	0.281	0.163	0.303	0.597	0.655	0.000	0.980	1.159	0.694	1.041	1.608	1.624	1.420	1.201	1.377	1.578	1.762	1.128	0.916	0.995	0.889
0.675	0.665	1.232	1.148	1.212	0.000	0.543	0.438	0.000	0.628	0.397	0.229	0.197	0.522	0.795	0.896	1.093	1.389	0.792	0.795	1.289	1.485	1.097	0.941	1.224	1.691	1.870	1.499	1.031	0.000	0.783
0.494	0.403	1.295	1.218	1.322	0.000	0.495	0.000	0.000	0.510	0.513	0.416	0.371	0.446	0.726	0.825	1.096	1.587	0.921	1.098	1.320	1.482	1.170	0.917	1.348	1.362	1.883	1.636	1.108	0.000	0.870
0.893	0.710	1.278	1.100	1.270	0.000	0.480	0.340	0.000	0.586	0.340	0.231	0.276	0.462	0.773	0.000	0.886	1.327	0.773	1.027	1.390	1.653	1.238	1.013	1.201	1.550	1.844	1.411	0.928	0.000	0.883
1.521	1.142	1.273	1.179	1.236	0.000	0.000	0.289	0.000	0.416	0.554	0.465	0.332	0.497	0.605	0.693	0.857	0.880	0.586	1.086	1.242	1.490	1.026	0.963	1.139	1.684	1.621	0.870	0.731	0.783	0.551
0.931	0.748	1.412	1.218	1.316	0.000	0.400	0.304	0.000	0.600	0.284	0.207	0.000	0.490	0.603	0.896	0.978	1.060	0.628	1.229	1.490	1.578	1.248	0.949	1.314	1.806	1.788	0.970	0.799	0.926	0.765
1.607	1.277	1.273	1.009	1.139	0.000	0.597	0.334	0.000	0.438	0.568	0.455	0.346	0.449	0.626	0.000	0.909	1.104	0.634	0.902	1.398	1.719	1.197	1.109	1.299	1.637	1.472	0.789	0.769	0.850	0.730
0.606	0.547	1.069	0.920	0.909	0.000	0.467	0.354	0.000	0.461	0.345	0.257	0.187	0.543	0.644	0.000	0.973	1.006	0.716	1.020	1.576	1.733	1.391	1.073	1.364	1.646	1.701	1.023	0.936	1.115	0.000
1.198	1.214	1.215	1.035	1.015	0.000	0.685	0.513	0.000	0.514	0.339	0.236	0.000	0.651	0.717	0.899	1.036	1.348	0.695	1.103	1.279	1.410	1.119	0.808	1.469	1.290	1.784	1.447	0.783	0.908	0.855
1.784	1.727	0.000	0.641	0.626	0.000	0.526	0.348	0.000	0.199	0.493	0.394	0.242	0.351	0.568	0.000	0.792	1.025	0.590	1.037	1.414	1.602	1.171	0.918	1.380	1.489	1.458	0.908	0.828	1.026	0.000
0.933	0.825	1.054	0.910	0.889	0.000	0.721	0.505	0.000	0.323	0.658	0.546	0.402	0.492	0.714	0.000	1.077	1.405	0.761	1.087	1.512	1.670	1.236	0.946	1.399	1.522	1.715	1.318	0.948	1.177	0.000
1.066	1.047	1.133	0.681	0.691	0.000	0.519	0.330	0.000	0.417	0.266	0.150	0.000	0.497	0.743	0.860	0.966	1.033	0.605	0.955	1.531	1.662	1.283	0.935	1.252	1.733	1.589	0.937	0.782	0.986	0.785
1.348	0.000	1.435	0.892	0.932	0.000	0.739	0.490	0.000	0.379	0.431	0.318	0.252	0.502	0.892	0.831	0.947	1.348	0.724	1.003	1.396	1.650	1.257	0.994	1.206	1.660	1.721	1.222	0.728	0.887	0.686
1.149	1.176	1.266	1.099	1.290	0.000	0.000	0.000	0.000	0.336	0.234	0.225	0.181	0.459	0.814	0.765	0.855	1.417	0.805	0.847	1.351	1.395	1.311	0.756	1.310	1.422	1.768	1.467	0.000	0.896	0.774
0.778	0.868	1.227	1.007	1.105	0.000	0.528	0.000	0.000	0.511	0.000	0.000	0.000	0.000	0.663	0.695	0.800	1.339	0.792	0.766	1.252	1.246	1.253	0.771	1.192	1.316	1.900	1.830	0.655	0.000	0.665
1.626	1.909	1.434	1.124	1.151	0.000	0.484	0.296	0.000	0.412	0.272	0.191	0.000	0.426	0.659	0.915	0.926	1.122	0.543	1.128	1.467	1.567	1.236	0.921	1.310	1.856	1.530	0.932	0.717	0.944	0.784
1.715	1.682	1.303	1.119	1.097	0.000	0.682	0.539	0.000	0.384	0.424	0.363	0.292	0.425	0.668	0.732	0.869	1.129	0.624	0.872	1.444	1.706	0.000	1.197	1.560	1.566	1.597	0.930	0.716	0.855	0.809
1.051	1.017	2.429	1.991	2.755	0.000	0.502	0.316	0.000	1.090	0.521	0.408	0.401	0.446	0.613	0.592	0.843	0.978	0.506	0.731	1.048	1.394	0.958	0.806	1.130	1.405	1.327	0.626	0.665	0.543	0.444
1.605	1.788	1.378	1.127	1.151	0.000	0.582	0.395	0.000	0.351	0.490	0.359	0.329	0.459	0.754	0.799	0.894	1.073	0.622	0.953	1.292	1.564	1.156	1.096	1.341	1.619	1.559	1.004	0.778	0.882	0.685
1.422	1.368	1.253	1.033	1.013	0.000	0.650	0.485	0.000	0.331	0.458	0.337	0.326	0.450	0.658	0.717	0.971	1.152	0.557	1.084	1.309	1.402	1.104	0.998	1.491	1.502	1.577	1.054	0.775	0.834	0.000
2.097	2.037	0.000	0.992	0.894	0.000	0.654	0.434	0.000	0.197	0.242	0.000	0.250	0.442	0.662	0.671	0.932	1.209	0.563	1.072	1.287	1.394	1.069	0.947	1.416	1.521	1.430	0.961	0.802	0.920	0.000
2.022	1.914	0.000	0.845	0.835	0.000	0.438	0.391	0.000	0.263	0.221	0.000	0.000	0.519	0.619	0.658	0.651	0.984	0.565	1.209	1.303	1.456	1.080	1.012	1.534	1.542	1.354	0.773	0.729	0.798	0.542
2.141	1.768	1.660	1.314	1.705	0.000	0.435	0.341	0.000	0.660	0.501	0.370	0.359	0.000	0.505	0.641	0.874	0.884	0.501	1.107	1.235	1.379	1.124	0.929	1.418	1.584	1.410	0.664	0.607	0.635	0.435
1.530	1.540	1.351	1.063	1.160	0.000	0.329	0.287	0.000	0.456	0.384	0.261	0.000	0.452	0.595	0.682	0.998	0.990	0.489	1.320	1.600	1.662	1.237	1.041	1.562	1.632	1.499	0.747	0.774	0.911	0.622
1.267	1.362	1.445	1.199	1.207	0.000	0.499	0.349	0.000	0.420	0.458	0.373	0.296	0.425	0.720	0.750	1.041	1.160	0.545	1.447	1.675	1.639	1.277	0.993	1.785	1.693	1.671	0.963	0.958	1.138	0.698
1.760	1.926	1.480	1.148	1.258	0.000	0.382	0.263	0.000	0.482	0.416	0.000	0.394	0.465	0.657	0.756	0.818	1.041	0.534	1.424	1.510	1.432	1.182	0.916	1.605	1.583	1.492	0.826	0.844	1.005	0.527
2.090	1.993	1.530	1.119	1.244	0.000	0.448	0.284	0.000	0.532	0.515	0.427	0.366	0.410	0.574	0.620	0.883	0.860	0.557	1.098	1.292	1.587	1.174	1.058	1.396	1.422	1.309	0.712	0.673	0.815	0.712
2.235	2.233	1.307	0.935	0.883	0.000	0.471	0.230	0.000	0.456	0.491	0.379	0.258	0.378	0.587	0.571	0.927	0.963	0.541	0.951	1.263	1.593	1.042	1.001	1.326	1.376	1.400	0.758	0.774	0.867	0.776
2.045	2.081	1.480	1.051	1.042	0.000	0.513	0.269	0.000	0.371	0.624	0.526	0.389	0.000	0.647	0.670	0.937	1.134	0.567	1.122	1.404	1.701	1.139	1.060	1.424	1.440	1.383	0.726	0.789	0.957	0.855
1.755	1.857	1.156	0.883	0.943	0.000	0.627	0.360	0.000	0.299	0.491	0.396	0.294	0.525	0.695	0.713	0.986	1.073	0.634	1.012	1.449	1.755	1.218	1.086	1.432	1.479	1.383	0.842	0.863	1.025	0.821
2.220	2.324	1.319	1.045	1.038	0.000	0.507	0.287	0.000	0.388	0.298	0.217	0.000	0.320	0.689	0.000	1.006	1.199	0.730	0.964	1.476	1.613	1.208	0.990	1.445	1.583	1.504	0.900	0.925	0.996	0.647
2.184	2.177	1.395	1.007	0.943	0.000	0.511	0.291	0.000	0.313	0.434	0.304	0.267	0.388	0.600	0.737	0.927	1.056	0.000	1.440	1.620	1.279	1.173	0.938	1.532	1.596	1.653	0.872	0.929	0.979	0.602
2.012	1.985	1.511	1.165	1.199	0.000	0.553	0.397	0.000	0.438	0.381	0.282	0.228	0.483	0.728	0.740	0.992	1.083	0.564	1.127	1.431	1.660	1.220	1.064	1.490	1.591	1.560	0.852	0.825	0.892	0.740
1.771	1.816	1.523	1.163	1.222	0.000	0.532	0.346	0.000	0.509	0.256	0.212	0.218	0.464	0.558	0.659	0.978	1.018	0.556	1.445	1.398	1.410	1.096	0.957	1.497	1.491	1.448	0.755	0.788	0.888	0.645
1.404	1.521	1.394	1.046	1.191	0.000	0.456	0.391	0.000	0.509	0.543	0.409	0.396	0.477	0.670	0.705	0.895	1.031	0.635	1.331	1.395	1.449	1.150	1.007	1.601	1.543	1.656	0.894	0.778	0.908	0.759
1.667	1.658	1.363	1.072	1.160	0.000	0.495	0.280	0.000	0.443	0.313	0.244	0.213	0.427	0.640	0.687	1.001	1.074	0.561	1.416	1.412	1.377	1.066	0.961	1.465	1.582	1.627	0.935	0.765	0.818	0.621

169.00	170.92	172.33	181.44	193.17	195.82	197.81	198.75	203.06	204.60	206.61	207.61	208.31	213.99	215.95	217.32	219.70	223.06	225.02	232.82	275.75	286.91	291.02	394.09	398.20	401.56	418.49	422.18	431.29	434.26	435.80
0.746	0.429	0.476	0.000	0.553	1.098	0.983	0.974	0.000	1.644	1.656	1.806	0.000	1.331	0.941	1.040	0.000	0.804	0.340	0.790	0.250	0.000	0.376	0.430	0.585	0.336	0.504	0.409	0.617	0.719	0.669
0.762	0.427	0.478	0.000	0.612	1.144	1.022	1.053	0.000	1.480	1.609	1.782	0.000	1.408	1.014	1.203	0.000	0.738	0.000	0.807	0.000	0.000	0.317	0.456	0.588	0.315	0.519	0.390	0.582	0.734	0.000
0.596	0.447	0.444	0.000	0.674	1.140	1.028	1.088	0.000	1.673	1.810	2.041	0.000	1.450	1.056	1.273	0.000	0.839	0.323	1.000	0.000	0.000	0.299	0.495	0.649	0.362	0.572	0.280	0.719	0.808	0.000
0.515	0.422	0.000	0.000	0.602	1.211	1.077	1.142	0.000	1.750	1.844	2.082	0.000	1.537	1.112	1.353	0.000	0.816	0.000	0.975	0.000	0.000	0.000	0.409	0.448	0.000	0.428	0.383	0.409	0.442	0.373
0.628	0.375	0.424	0.000	0.579	1.179	1.072	1.153	0.000	1.664	1.763	2.005	0.000	1.481	1.054	1.255	0.597	0.764	0.000	0.907	0.000	0.000	0.000	0.457	0.461	0.000	0.398	0.348	0.504	0.617	0.000
0.670	0.483	0.302	0.000	0.624	1.286	1.170	1.280	0.000	1.849	2.071	2.430	0.000	1.775	1.287	1.523	0.705	0.910	0.000	1.287	0.000	0.000	0.000	0.705	0.814	0.576	0.705	0.576	0.910	1.077	0.000
0.823	0.456	0.507	0.000	0.556	1.032	1.067	0.942	0.000	1.538	1.841	1.780	0.000	1.584	1.195	1.245	0.563	1.026	0.550	0.668	0.357	0.000	0.000	0.530	0.722	0.447	0.688	0.572	0.840	0.999	0.000
1.141	0.457	0.682	0.000	0.552	1.004	1.027	0.837	0.000	1.420	1.636	1.446	0.000	1.466	1.059	1.025	0.522	0.919	0.502	0.631	0.304	0.000	0.000	0.549	0.813	0.468	0.724	0.753	1.014	1.289	1.007
0.968	0.347	0.530	0.000	0.605	1.050	1.077	0.901	0.503	1.531	1.830	1.676	0.000	1.654	1.315	1.279	0.632	1.043	0.588	0.649	0.226	0.000	0.000	0.555	0.747	0.417	0.651	0.622	0.885	1.077	0.855
0.849	0.415	0.535	0.000	0.596	1.092	1.109	0.929	0.542	1.429	1.620	1.485	0.000	1.618	1.223	1.216	0.555	0.904	0.456	0.777	0.331	0.000	0.000	0.588	0.739	0.437	0.661	0.658	0.902	1.037	0.000
0.376	0.326	0.324	0.000	0.488	1.006	0.917	0.909	0.000	1.718	1.898	2.059	0.000	1.634	1.184	1.409	0.000	0.869	0.000	0.892	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.671	0.455	0.433	0.000	0.615	1.099	1.045	1.023	0.000	1.402	1.528	1.653	0.000	1.330	0.893	1.128	0.000	0.649	0.477	0.779	0.000	0.533	0.000	0.597	0.941	0.645	0.642	0.612	0.000	1.267	0.000
0.852	0.530	0.630	0.194	0.546	0.923	0.855	0.837	0.000	1.249	1.297	1.397	0.000	1.132	0.807	0.906	0.418	0.613	0.443	0.872	0.000	0.457	0.000	0.622	0.897	0.659	0.643	0.000	0.000	1.620	0.000
0.781	0.540	0.583	0.000	0.555	1.054	1.034	0.963	0.640	1.326	1.447	1.513	0.000	1.213	0.835	0.927	0.000	0.594	0.462	0.784	0.000	0.655	0.000	0.608	0.937	0.743	0.612	0.697	0.000	1.479	0.000
0.604	0.426	0.447	0.000	0.500	1.072	1.098	0.924	0.345	1.434	1.741	1.620	0.000	1.607	1.245	1.220	0.000	1.006	0.000	0.783	0.000	0.000	0.000	0.000	0.450	0.000	0.000	0.375	0.517	0.612	0.000
0.786	0.515	0.535	0.000	0.509	0.983	1.027	0.890	0.000	1.469	1.800	1.719	0.000	1.550	1.212	1.208	0.000	0.983	0.390	0.744	0.000	0.000	0.291	0.524	0.599	0.336	0.553	0.555	0.705	0.809	0.760
0.809	0.448	0.516	0.000	0.615	1.024	1.044	0.902	0.504	1.417	1.692	1.593	0.000	1.565	1.168	1.164	0.000	0.990	0.424	0.848	0.238	0.286	0.316	0.540	0.656	0.430	0.000	0.637	0.882	1.106	0.000
0.779	0.350	0.446	0.000	0.541	1.072	1.141	0.977	0.590	1.432	1.771	1.636	0.000	1.599	1.224	1.224	0.622	0.980	0.394	0.770	0.000	0.000	0.000	0.525	0.689	0.469	0.641	0.690	0.861	0.990	0.000
0.925	0.439	0.592	0.000	0.495	1.095	1.145	0.989	0.000	1.485	1.792	1.683	0.000	1.661	1.241	1.287	0.000	0.965	0.415	0.775	0.000	0.285	0.353	0.578	0.642	0.395	0.605	0.624	0.787	0.906	0.000
0.764	0.362	0.482	0.000	0.587	0.981	0.936	0.798	0.000	1.528	1.684	1.578	0.000	1.570	1.151	1.180	0.000	0.875	0.500	0.754	0.000	0.311	0.000	0.598	0.674	0.436	0.636	0.710	0.866	0.947	0.000
0.996	0.412	0.607	0.000	0.491	0.999	0.975	0.825	0.000	1.448	1.673	1.603	0.000	1.576	1.183	1.177	0.480	0.925	0.000	0.657	0.000	0.000	0.000	0.000	0.522	0.000	0.412	0.472	0.512	0.663	0.742
0.733	0.373	0.525	0.000	0.540	1.086	1.099	0.957	0.000	1.464	1.736	1.611	0.000	1.623	1.222	1.209	0.000	0.940	0.000	0.729	0.000	0.000	0.000	0.447	0.353	0.000	0.350	0.584	0.485	0.000	0.656
0.718	0.387	0.516	0.000	0.570	1.065	1.068	0.964	0.000	1.590	1.880	1.808	0.000	1.650	1.243	1.307	0.000	1.028	0.000	0.784	0.000	0.000	0.000	0.400	0.321	0.000	0.321	0.598	0.442	0.630	0.000
0.962	0.376	0.652	0.000	0.667	1.165	1.161	1.076	0.000	1.598	1.912	1.911	0.000	1.665	1.235	1.363	0.000	1.030	0.000	0.866	0.000	0.000	0.000	0.459	0.434	0.000	0.349	0.544	0.443	0.733	0.717
0.796	0.000	0.000	0.000	0.655	1.167	1.196	1.035	0.000	1.484	1.739	1.712	0.000	1.646	1.196	1.309	0.000	0.958	0.000	0.912	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.758	0.823
0.755	0.472	0.578	0.000	0.634	1.092	0.901	1.021	0.000	1.419	1.486	1.792	0.000	1.352	0.943	1.069	0.638	0.694	0.522	0.869	0.282	0.392	0.000	0.628	0.880	0.540	0.700	0.525	0.867	1.166	1.155
0.888	0.456	0.676	0.000	0.599	1.020	0.913	0.950	0.000	1.389	1.505	1.675	0.000	1.217	0.839	0.968	0.444	0.652	0.532	0.891	0.000	0.403	0.000	0.750	0.985	0.710	0.689	0.671	0.000	1.368	0.000
0.891	0.476	0.575	0.000	0.598	1.212	1.244	1.100	0.000	1.446	1.722	1.602	0.000	1.683	1.257	1.258	0.000	0.893	0.560	0.679	0.000	0.332	0.000	0.577	0.693	0.426	0.623	0.659	0.821	0.988	0.950
0.675	0.580	0.743	0.000	0.000	0.569	0.519	0.580	0.000	0.756	0.747	0.965	0.000	0.606	0.422	0.471	0.000	0.499	0.460	0.652	0.359	0.493	0.469	0.629	0.833	0.730	0.405	0.000	0.000	1.516	0.000
0.737	0.541	0.940	0.000	0.000	0.498	0.423	0.465	0.327	0.691	0.586	0.778	0.000	0.439	0.319	0.335	0.000	0.623	0.590	0.846	0.000	0.504	0.000	0.696	0.794	0.620	0.487	0.469	0.000	1.642	1.617
0.826	0.935	1.141	0.857	0.547	0.589	0.000	0.593	0.607	0.491	0.735	0.534	0.000	0.470	0.301	0.460	0.000	0.596	0.344	0.544	0.000	0.585	0.604	0.923	0.864	0.598	0.536	0.430	0.000	1.802	0.000
0.912	0.862	1.461	0.000	0.285	0.435	0.644	0.000	0.421	0.389	0.647	0.385	0.000	0.484	0.339	0.476	0.000	0.413	0.425	0.785	0.000	0.743	0.000	0.654	0.897	0.758	0.000	0.762	0.000	2.015	1.819
1.027	1.045	1.604	0.000	0.359	0.481	0.564	0.542	0.431	0.401	0.620	0.387	0.000	0.435	0.297	0.409	0.000	0.466	0.420	0.603	0.000	0.727	0.593	0.640	0.705	0.518	0.000	0.587	0.000	1.559	1.742
0.956	0.948	1.508	0.292	0.370	0.609	0.693	0.000	0.433	0.392	0.567	0.396	0.000	0.488	0.323	0.404	0.000	0.520	0.461	0.612	0.363	0.694	0.000	0.654	0.806	0.674	0.000	0.686	0.000	1.735	1.812
0.932	0.781	1.189	0.000	0.389	0.670	0.681	0.626	0.315	0.507	0.412	0.515	0.000	0.595	0.329	0.512	0.463	0.568	0.552	0.762	0.297	0.724	0.000	0.578	0.878	0.687	0.000	0.628	1.187	2.152	0.000
1.079	0.912	1.535	0.000	0.729	0.527	0.613	0.636	0.456	0.403	0.500	0.411	0.000	0.522	0.321	0.408	0.000	0.733	0.342	0.494	0.323	0.633	0.686	0.000	0.801	0.696	0.556	0.000	0.000	0.000	1.861
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.116	1.049	1.703	0.000	0.936	0.603	0.000	0.685	0.553	0.594	0.622	0.606	0.000	0.438	0.331	0.386	0.238	0.783	0.437	0.420	0.356	0.663	0.000	0.791	0.664	0.462	0.419	0.392	0.000	0.000	0.000
0.955	0.873	1.281	0.000	0.454	0.469	0.444	0.431	0.265	0.348	0.383	0.385	0.000	0.291	0.000	0.303	0.000	0.577	0.543	0.394	0.000	0.695	0.667	0.643	0.493	0.000	0.364	0.431	0.000	0.000	1.437
0.976	0.997	1.465	0.402	0.701	0.658	0.617	0.664	0.450	0.579	0.549	0.510	0.000	0.761	0.390	0.630	0.000	0.517	0.500	0.815	0.000	0.892	0.697	0.664	0.675	0.477	0.000	0.452	0.000	0.000	1.594
0.000	0.000	0.000	0.000	0.000	0.836	0.000	1.150	0.000	1.666	1.674	2.275	0.000	2.006	1.373	1.799	0.000	1.506	0.000	1.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.779	0.671	0.782	0.251	0.540	0.900	0.851	0.886	0.443	0.529	0.499	0.445	0.000	0.831	0.443	0.578	0.354	0.000	0.540	1.543	0.401	0.826	0.537	0.675	0.901	0.000	0.000	0.762	0.000	2.265	0.000
0.984	0.656	1.176	0.000	0.346	0.639	0.575	0.532	0.436	0.383	0.422	0.377	0.000	0.831	0.348	0.451	0.000	0.000	0.459	0.658	0.364	0.595	0.528	0.602	0.929	0.820	0.000	0.669	0.000	1.828	1.837
0.975	0.599	1.088	0.000	0.415	0.786	0.630	0.655	0.465	0.624	0.515	0.490	0.000	0.774	0.315	0.393	0.000	0.295	0.538	0.812	0.420	0.671	0.000	0.753	1.123	0.989	0.000	0.603	0.000	0.000	2.045
0.786	0.470	0.938	0.000	0.000	0.363	0.486	0.353	0.000	0.521	0.361	0.464	0.000	0.430	0.000	0.000	0.000	0.348	0.611	1.065	0.358	0.698	0.509	0.660	0.940	0.788	0.499	0.630	0.000	2.022	1.733
0.809	0.692	1.011	0.000	0.474	0.733	0.718	0.757	0.598	0.873	0.794	0.946	0.000	0.959	0.562	0.795	0.000	0.556	0.466	0.937	0.388	0.662	0.498	0.723	1.275	0.635	0.000	0.000	1.361	1.791	0.000
0.858	0.659	1.053	0.000	0.430	0.625	0.701	0.635	0.550	0.966	0.845	0.997	0.000	1.081	0.000	0.738	0.000	0.577	0.517	0.816	0.380	0.658	0.000	0.800	0.863	0.633	0.531	0.574	0.000	1.713	0.000
0.474	0.772	0.352	0.000	0.643	0.941	0.854	0.922	0.301	1.210	1.116	1.381	0.000	1.890	1.154	1.602	0.000	0.768	0.493	0.968	0.000	0.000	0.000	0.499	0.626	0.400	0.568	0.609	0.000	0.851	1.080
0.965	0.660	1.037	0.208	0.331	0.493	0.575	0.000	0.451	0.457	0.454	0.397	0.000	0.760	0.323	0.358	0.250	0.419	0.499	0.892	0.361	0.673	0.646	0.630	0.856	0.689	0.000	0.660	0.000	1.818	1.775
1.060	0.742	1.243	0.000	0.390	0.000	0.617	0.000	0.456	0.496	0.471	0.427	0.000	0.853	0.438	0.442	0.347	0.416	0.617	0.599	0.000	0.758	0.661	0.646	0.848	0.685	0.000	0.743	0.000	1.791	1.824
1.137	1.009	1.378	0.000	0.455	0.617	0.701	0.697	0.539	0.685	0.614	0.564	0.000	0.824	0.443	0.478	0.000	0.539	0.568	0.546	0.417	0.709	0.644	0.578	0.932	0.854	0.000	0.613	0.000	0.000	1.898
1.233	0.999	1.608	0.000	0.472	0.655	0.660	0.655	0.409	0.445	0.000	0.346	0.000	0.686	0.344	0.353	0.000	0.402	0.394	0.566	0.000	0.731	0.746	0.748	0.849	0.668	0.643	0.000	1.171	0.000	1.784
1.425	0.984	1.196	0.000	0.463	0.000	0.682	0.645	0.413	0.635	0.771	0.000	0.000	1.058	0.957	0.000	0.000	0.648	0.489	0.000	0.374	0.699	0.820	0.413	0.735	0.614	0.623	0.561	1.030	0.000	1.319
1.363	0.895	1.220	0.000	0.529	0.626	0.685	0.697	0.528	0.794	0.907	0.677	0.000	1.091	0.955	0.000	0.000	0.654	0.585	0.526	0.000	0.656	0.688	0.601	0.854	0.754	0.658	0.603	0.000	0.000	1.420
1.288	0.978	1.165	0.000	0.584	0.690	0.750	0.778	0.489	0.605	0.713	0.505	0.000	1.005	0.874	0.000	0.000	0.786	0.541	0.456	0.000	0.775	0.959	0.375	0.684	0.580	0.573	0.536	1.036	0.000	1.361
0.830	0.582	0.617	0.310	0.421	0.723	0.884	0.000	0.478	0.760	0.918	0.674	0.000	1.169	0.928	0.805	0.463	0.610	0.395	0.718	0.583	0.587	0.000	0.725	1.071	0.914	0.799	0.890	0.000	0.000	1.679
1.645	0.922	1.547	0.516	0.503	0.852	0.919	0.778	0.416	0.794	0.930	0.716	0.000	1.277	1.070	0.873	0.551	0.677	0.000	0.527	0.000	0.670	0.701	0.671	0.921	0.789	0.805	0.000	1.034	0.000	1.517
1.512	0.857	1.497	0.396	0.497	0.700	0.805	0.728	0.576	0.859	1.051	0.780	0.000	1.174	0.935	0.872	0.000	0.724	0.425	0.532	0.000	0.537	0.561	0.718	1.061	1.020	0.789	0.786	1.072	0.000	1.728
1.307	0.616	0.931	0.215	0.406	0.802	0.962	0.807	0.453	0.980	1.234	0.976	0.000	1.179	0.881	0.789	0.000	0.835	0.470	0.693	0.264	0.444	0.468	0.777	1.091	0.891	0.807	0.812	1.295	1.693	0.000
1.672	0.899	1.525	0.000	0.396	0.785	0.885	0.726	0.440	0.500	0.562	0.424	0.000	1.289	1.010	0.852	0.000	0.466	0.530	0.634	0.298	0.524	0.601	0.603	1.061	0.947	0.782	0.757	1.089	0.000	1.525
1.343	0.000	1.112	0.273	0.450	0.746	0.870	0.000	0.407	0.489	0.553	0.418	0.000	1.105	0.876	0.000	0.000	0.000	0.593	0.679	0.368	0.687	0.665	0.553	0.859	0.702	0.732	0.844	0.000	1.624	0.000
1.677	1.174	1.712	0.387	0.530	0.702	0.823	0.000	0.404	0.641	0.782	0.570	0.000	1.140	0.965	0.000	0.000	0.729	0.474	0.551	0.518	0.824	0.732	0.427	0.723	0.537	0.664	0.618	0.000	0.000	1.343
1.782	0.000	1.755	0.000	0.594	0.739	0.753	0.000	0.514	0.815	0.952	0.755	0.000	1.266	1.025	0.000	0.000	0.949	0.000	0.557	0.000	0.644	0.726	0.631	1.165	1.377	0.887	0.829	0.000	0.000	1.745
1.595	0.973	1.494	0.288	0.518	0.652	0.777	0.000	0.420	0.772	0.918	0.630	0.000	0.993	0.734	0.569	0.489	0.730	0.458	0.492	0.383	0.731	0.702	0.509	0.741	0.571	0.634	0.671	0.000	1.257	1.343
1.814	1.218	1.884	0.605	0.615	0.813	0.922	0.000	0.494	0.507	0.601	0.441	0.000	1.326	1.048	0.834	0.437	0.644	0.377	0.566	0.575	0.753	0.733	0.558	0.803	0.709	0.741	0.731	0.000	0.000	1.438
1.712	1.027	1.680	0.356	0.492	0.699	0.820	0.625	0.475	0.695	0.806	0.563	0.000	1.197	0.953	0.762	0.000	0.609	0.452	0.707	0.352	0.588	0.534	0.721	1.078	0.792	0.773	0.803	1.255	1.642	1.478
1.384	0.737	1.150	0.430	0.497	0.623	0.692	0.000	0.521	0.578	0.680	0.450	0.000	1.130	0.941	0.780	0.342	0.539	0.480	0.675	0.353	0.602	0.659	0.847	1.045	0.822	0.791	0.812	0.000	1.365	1.373
1.826	0.944	1.748	0.521	0.576	0.740	0.753	0.000	0.441	0.746	0.851	0.746	0.000	1.226	0.933	0.887	0.377	0.722	0.000	0.503	0.402	0.605	0.696	0.792	0.978	0.731	0.700	0.764	0.000	1.318	1.317
1.451	0.000	1.458	0.337	0.399	0.721	0.723	0.704	0.421	0.768	0.700	0.644	0.000	1.175	0.952	0.000	0.326	0.652	0.000	0.526	0.281	0.496	0.554	0.714	0.977	0.942	0.761	0.650	0.000	1.422	1.595
1.678	0.988	1.664	0.376	0.483	0.637	0.738	0.000	0.427	0.626	0.683	0.482	0.000	1.092	0.858	0.000	0.000	0.000	0.440	0.612	0.337	0.597	0.536	0.608	0.896	0.655	0.697	0.740	0.000	1.491	1.426
1.257	0.776	1.080	0.336	0.601	0.845	0.870	0.776	0.630	0.765	0.884	0.704	0.000	1.237	0.968	0.892	0.000	0.000	0.704	0.502	0.503	0.925	0.000	0.330	0.536	0.410	0.480	0.713	1.253	1.369	0.000
0.891	0.473	0.663	0.251	0.605	0.904	0.881	0.750	0.583	1.054	1.198	0.993	0.000	1.326	0.960	0.962	0.000	0.604	0.516	0.472	0.306	0.660	0.461	0.390	0.521	0.000	0.583	0.765	1.066	1.096	0.000
1.152	0.689	0.918	0.261	0.702	0.902	0.910	0.000	0.640	0.685	0.758	0.600	0.000	1.163	0.893	0.705	0.358	0.585	0.542	0.435	0.537	0.910	0.000	0.380	0.687	0.488	0.621	0.791	1.342	1.540	1.561
1.115	0.715	0.866	0.282	0.530	0.714	0.759	0.000	0.719	0.821	0.919	0.673	0.000	1.236	0.916	0.742	0.341	0.609	0.481	0.472	0.521	0.987	0.000	0.362	0.673	0.577	0.598	0.720	1.329	0.000	0.000
1.123	0.635	0.751	0.235	0.680	0.799	0.770	0.000	0.604	0.857	0.896	0.680	0.000	1.226	0.894	0.747	0.313	0.668	0.542	0.454	0.555	0.879	0.000	0.411	0.688	0.487	0.000	0.772	1.225	0.000	1.506
1.124	0.636	0.802	0.321	0.655	0.695	0.765	0.000	0.546	0.784	0.807	0.623	0.000	1.319	0.975	0.885	0.000	0.645	0.576	0.460	0.395	0.716	0.000	0.452	0.744	0.531	0.649	0.845	1.090	0.000	1.420
1.370	0.634	1.048	0.000	0.471	0.630	0.696	0.000	0.503	0.697	0.725	0.641	0.000	0.939	0.839	0.000	0.576	0.000	0.479	0.323	0.349	0.596	0.510	0.361	0.713	0.411	0.000	0.751	0.993	0.000	1.191
1.488	0.756	1.154	0.331	0.578	0.781	0.914	0.000	0.504	0.821	0.951	0.739	0.000	1.226	0.891	0.000	0.000	0.752	0.586	0.418	0.399	0.798	0.721	0.436	0.734	0.511	0.000	0.868	0.000	0.000	0.000
1.658	0.923	1.371	0.341	0.666	0.762	0.862	0.000	0.619	0.636	0.707	0.665	0.000	1.160	0.789	0.677	0.000	0.717	0.727	0.360	0.552	0.923	0.000	0.469	0.795	0.557	0.000	0.956	0.000	0.000	0.000
1.537	0.770	1.249	0.400	0.637	0.853	0.981	0.756	0.590	0.787	0.892	0.723	0.000	1.044	0.699	0.589	0.506	0.702	0.587	0.343	0.426	0.750	0.699	0.350	0.669	0.440	0.000	0.797	0.983	0.000	0.000
1.148	0.568	0.846	0.278	0.624	0.663	0.694	0.000	0.521	0.513	0.487	0.510	0.000	1.200	0.933	0.813	0.486	0.521	0.645	0.453	0.556	0.652	0.780	0.400	0.803	0.645	0.658	0.803	0.000	0.000	1.385
1.172	0.611	0.857	0.000	0.604	0.841	0.864	0.000	0.410	0.697	0.735	0.537	0.000	1.213	0.883	0.699	0.375	0.538	0.499	0.400	0.686	0.720	0.000	0.419	0.607	0.412	0.000	0.778	1.091	0.000	1.261
1.318	0.689	0.980	0.315	0.666	0.745	0.776	0.000	0.492	0.905	0.949	0.713	0.000	1.230	0.910	0.772	0.000	0.730	0.651	0.415	0.711	0.719	0.677	0.344	0.592	0.371	0.000	0.847	1.078	1.297	0.000
1.318	0.779	1.065	0.362	0.688	0.850	0.866	0.000	0.541	0.674	0.730	0.575	0.000	1.116	0.837	0.678	0.488	0.587	0.631	0.349	0.471	0.900	0.000	0.313	0.485	0.000	0.000	0.805	1.075	1.257	0.000
1.253	0.690	1.003	0.283	0.557	0.690	0.708	0.000	0.000	0.604	0.654	0.611	0.000	0.972	0.718	0.000	0.000	0.000	0.665	0.313	0.427	0.702	0.566	0.411	0.508	0.000	0.586	0.708	0.000	0.000	1.227
1.266	0.707	0.864	0.311	0.633	0.782	0.910	0.782	0.637	0.705	0.763	0.571	0.000	1.264	0.941	0.784	0.000	0.695	0.572	0.467	0.603	0.962	0.834	0.559	0.899	0.699	0.000	0.000	0.000	0.000	0.000
1.333	0.737	1.025	0.356	0.661	0.883	0.896	0.000	0.575	0.749	0.811	0.622	0.000	1.272	0.910	0.805	0.000	0.652	0.631	0.433	0.000	0.820	0.000	0.358	0.674	0.464	0.644	0.839	1.105	1.330	0.000
1.221	0.673	0.851	0.316	0.691	0.853	0.909	0.735	0.552	0.738	0.793	0.730	0.000	1.162	0.821	0.704	0.000	0.735	0.612	0.394	0.504	0.812	0.000	0.437	0.687	0.501	0.668	0.844	1.063	1.344	0.000
1.615	0.839	1.393	0.000	0.643	0.817	0.881	0.705	0.544	0.617	0.635	0.636	0.000	1.309	0.920	0.861	0.000	0.655	0.635	0.479	0.442	0.809	0.000	0.363	0.718	0.524	0.720	0.776	1.035	0.000	0.000
1.494	0.733	1.137	0.302	0.600	0.704	0.782	0.643	0.634	0.750	0.797	0.595	0.000	1.271	0.867	0.801	0.000	0.671	0.586	0.414	0.447	0.782	0.000	0.377	0.745	0.480	0.684	0.722	1.044	0.000	1.364

170.92	172.33	181.44	193.17	195.82	197.81	198.75	203.06	204.60	206.61	207.61	208.31	213.99	215.95	217.32	219.70	223.06	225.02	232.82	275.75	286.91	291.02	394.09	398.20	401.56	418.49	422.18	431.29	434.26	435.80	438.20
0.429	0.476	0.000	0.553	1.098	0.983	0.974	0.000	1.644	1.656	1.806	0.000	1.331	0.941	1.040	0.000	0.804	0.340	0.790	0.250	0.000	0.376	0.430	0.585	0.336	0.504	0.409	0.617	0.719	0.669	0.647
0.427	0.478	0.000	0.612	1.144	1.022	1.053	0.000	1.480	1.609	1.782	0.000	1.408	1.014	1.203	0.000	0.738	0.000	0.807	0.000	0.000	0.317	0.456	0.588	0.315	0.519	0.390	0.582	0.734	0.000	0.718
0.447	0.444	0.000	0.674	1.140	1.028	1.088	0.000	1.673	1.810	2.041	0.000	1.450	1.056	1.273	0.000	0.839	0.323	1.000	0.000	0.000	0.299	0.495	0.649	0.362	0.572	0.280	0.719	0.808	0.000	0.582
0.422	0.000	0.000	0.602	1.211	1.077	1.142	0.000	1.750	1.844	2.082	0.000	1.537	1.112	1.353	0.000	0.816	0.000	0.975	0.000	0.000	0.000	0.409	0.448	0.000	0.428	0.383	0.409	0.442	0.373	0.307
0.375	0.424	0.000	0.579	1.179	1.072	1.153	0.000	1.664	1.763	2.005	0.000	1.481	1.054	1.255	0.597	0.764	0.000	0.907	0.000	0.000	0.000	0.457	0.461	0.000	0.398	0.348	0.504	0.617	0.000	0.555
0.483	0.302	0.000	0.624	1.286	1.170	1.280	0.000	1.849	2.071	2.430	0.000	1.775	1.287	1.523	0.705	0.910	0.000	1.287	0.000	0.000	0.000	0.705	0.814	0.576	0.705	0.576	0.910	1.077	0.000	0.000
0.456	0.507	0.000	0.556	1.032	1.067	0.942	0.000	1.538	1.841	1.780	0.000	1.584	1.195	1.245	0.563	1.026	0.550	0.668	0.357	0.000	0.000	0.530	0.722	0.447	0.688	0.572	0.840	0.999	0.000	0.000
0.457	0.682	0.000	0.552	1.004	1.027	0.837	0.000	1.420	1.636	1.446	0.000	1.466	1.059	1.025	0.522	0.919	0.502	0.631	0.304	0.000	0.000	0.549	0.813	0.468	0.724	0.753	1.014	1.289	1.007	0.992
0.347	0.530	0.000	0.605	1.050	1.077	0.901	0.503	1.531	1.830	1.676	0.000	1.654	1.315	1.279	0.632	1.043	0.588	0.649	0.226	0.000	0.000	0.555	0.747	0.417	0.651	0.622	0.885	1.077	0.855	0.839
0.415	0.535	0.000	0.596	1.092	1.109	0.929	0.542	1.429	1.620	1.485	0.000	1.618	1.223	1.216	0.555	0.904	0.456	0.777	0.331	0.000	0.000	0.588	0.739	0.437	0.661	0.658	0.902	1.037	0.000	0.000
0.326	0.324	0.000	0.488	1.006	0.917	0.909	0.000	1.718	1.898	2.059	0.000	1.634	1.184	1.409	0.000	0.869	0.000	0.892	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.455	0.433	0.000	0.615	1.099	1.045	1.023	0.000	1.402	1.528	1.653	0.000	1.330	0.893	1.128	0.000	0.649	0.477	0.779	0.000	0.533	0.000	0.597	0.941	0.645	0.642	0.612	0.000	1.267	0.000	0.000
0.530	0.630	0.194	0.546	0.923	0.855	0.837	0.000	1.249	1.297	1.397	0.000	1.132	0.807	0.906	0.418	0.613	0.443	0.872	0.000	0.457	0.000	0.622	0.897	0.659	0.643	0.000	0.000	1.620	0.000	0.000
0.540	0.583	0.000	0.555	1.054	1.034	0.963	0.640	1.326	1.447	1.513	0.000	1.213	0.835	0.927	0.000	0.594	0.462	0.784	0.000	0.655	0.000	0.608	0.937	0.743	0.612	0.697	0.000	1.479	0.000	0.000
0.426	0.447	0.000	0.500	1.072	1.098	0.924	0.345	1.434	1.741	1.620	0.000	1.607	1.245	1.220	0.000	1.006	0.000	0.783	0.000	0.000	0.000	0.000	0.450	0.000	0.000	0.375	0.517	0.612	0.000	0.453
0.515	0.535	0.000	0.509	0.983	1.027	0.890	0.000	1.469	1.800	1.719	0.000	1.550	1.212	1.208	0.000	0.983	0.390	0.744	0.000	0.000	0.291	0.524	0.599	0.336	0.553	0.555	0.705	0.809	0.760	0.000
0.448	0.516	0.000	0.615	1.024	1.044	0.902	0.504	1.417	1.692	1.593	0.000	1.565	1.168	1.164	0.000	0.990	0.424	0.848	0.238	0.286	0.316	0.540	0.656	0.430	0.000	0.637	0.882	1.106	0.000	0.942
0.350	0.446	0.000	0.541	1.072	1.141	0.977	0.590	1.432	1.771	1.636	0.000	1.599	1.224	1.224	0.622	0.980	0.394	0.770	0.000	0.000	0.000	0.525	0.689	0.469	0.641	0.690	0.861	0.990	0.000	0.820
0.439	0.592	0.000	0.495	1.095	1.145	0.989	0.000	1.485	1.792	1.683	0.000	1.661	1.241	1.287	0.000	0.965	0.415	0.775	0.000	0.285	0.353	0.578	0.642	0.395	0.605	0.624	0.787	0.906	0.000	0.829
0.362	0.482	0.000	0.587	0.981	0.936	0.798	0.000	1.528	1.684	1.578	0.000	1.570	1.151	1.180	0.000	0.875	0.500	0.754	0.000	0.311	0.000	0.598	0.674	0.436	0.636	0.710	0.866	0.947	0.000	0.823
0.412	0.607	0.000	0.491	0.999	0.975	0.825	0.000	1.448	1.673	1.603	0.000	1.576	1.183	1.177	0.480	0.925	0.000	0.657	0.000	0.000	0.000	0.000	0.522	0.000	0.412	0.472	0.512	0.663	0.742	0.772
0.373	0.525	0.000	0.540	1.086	1.099	0.957	0.000	1.464	1.736	1.611	0.000	1.623	1.222	1.209	0.000	0.940	0.000	0.729	0.000	0.000	0.000	0.447	0.353	0.000	0.350	0.584	0.485	0.000	0.656	0.658
0.387	0.516	0.000	0.570	1.065	1.068	0.964	0.000	1.590	1.880	1.808	0.000	1.650	1.243	1.307	0.000	1.028	0.000	0.784	0.000	0.000	0.000	0.400	0.321	0.000	0.321	0.598	0.442	0.630	0.000	0.629
0.376	0.652	0.000	0.667	1.165	1.161	1.076	0.000	1.598	1.912	1.911	0.000	1.665	1.235	1.363	0.000	1.030	0.000	0.866	0.000	0.000	0.000	0.459	0.434	0.000	0.349	0.544	0.443	0.733	0.717	0.740
0.000	0.000	0.000	0.655	1.167	1.196	1.035	0.000	1.484	1.739	1.712	0.000	1.646	1.196	1.309	0.000	0.958	0.000	0.912	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.758	0.823	0.786
0.472	0.578	0.000	0.634	1.092	0.901	1.021	0.000	1.419	1.486	1.792	0.000	1.352	0.943	1.069	0.638	0.694	0.522	0.869	0.282	0.392	0.000	0.628	0.880	0.540	0.700	0.525	0.867	1.166	1.155	0.000
0.456	0.676	0.000	0.599	1.020	0.913	0.950	0.000	1.389	1.505	1.675	0.000	1.217	0.839	0.968	0.444	0.652	0.532	0.891	0.000	0.403	0.000	0.750	0.985	0.710	0.689	0.671	0.000	1.368	0.000	0.000
0.476	0.575	0.000	0.598	1.212	1.244	1.100	0.000	1.446	1.722	1.602	0.000	1.683	1.257	1.258	0.000	0.893	0.560	0.679	0.000	0.332	0.000	0.577	0.693	0.426	0.623	0.659	0.821	0.988	0.950	0.000
0.580	0.743	0.000	0.000	0.569	0.519	0.580	0.000	0.756	0.747	0.965	0.000	0.606	0.422	0.471	0.000	0.499	0.460	0.652	0.359	0.493	0.469	0.629	0.833	0.730	0.405	0.000	0.000	1.516	0.000	0.000
0.541	0.940	0.000	0.000	0.498	0.423	0.465	0.327	0.691	0.586	0.778	0.000	0.439	0.319	0.335	0.000	0.623	0.590	0.846	0.000	0.504	0.000	0.696	0.794	0.620	0.487	0.469	0.000	1.642	1.617	0.000
0.935	1.141	0.857	0.547	0.589	0.000	0.593	0.607	0.491	0.735	0.534	0.000	0.470	0.301	0.460	0.000	0.596	0.344	0.544	0.000	0.585	0.604	0.923	0.864	0.598	0.536	0.430	0.000	1.802	0.000	1.886
0.862	1.461	0.000	0.285	0.435	0.644	0.000	0.421	0.389	0.647	0.385	0.000	0.484	0.339	0.476	0.000	0.413	0.425	0.785	0.000	0.743	0.000	0.654	0.897	0.758	0.000	0.762	0.000	2.015	1.819	0.000
1.045	1.604	0.000	0.359	0.481	0.564	0.542	0.431	0.401	0.620	0.387	0.000	0.435	0.297	0.409	0.000	0.466	0.420	0.603	0.000	0.727	0.593	0.640	0.705	0.518	0.000	0.587	0.000	1.559	1.742	1.876
0.948	1.508	0.292	0.370	0.609	0.693	0.000	0.433	0.392	0.567	0.396	0.000	0.488	0.323	0.404	0.000	0.520	0.461	0.612	0.363	0.694	0.000	0.654	0.806	0.674	0.000	0.686	0.000	1.735	1.812	1.851
0.781	1.189	0.000	0.389	0.670	0.681	0.626	0.315	0.507	0.412	0.515	0.000	0.595	0.329	0.512	0.463	0.568	0.552	0.762	0.297	0.724	0.000	0.578	0.878	0.687	0.000	0.628	1.187	2.152	0.000	1.659
0.912	1.535	0.000	0.729	0.527	0.613	0.636	0.456	0.403	0.500	0.411	0.000	0.522	0.321	0.408	0.000	0.733	0.342	0.494	0.323	0.633	0.686	0.000	0.801	0.696	0.556	0.000	0.000	0.000	1.861	2.038
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.049	1.703	0.000	0.936	0.603	0.000	0.685	0.553	0.594	0.622	0.606	0.000	0.438	0.331	0.386	0.238	0.783	0.437	0.420	0.356	0.663	0.000	0.791	0.664	0.462	0.419	0.392	0.000	0.000	0.000	1.865
0.873	1.281	0.000	0.454	0.469	0.444	0.431	0.265	0.348	0.383	0.385	0.000	0.291	0.000	0.303	0.000	0.577	0.543	0.394	0.000	0.695	0.667	0.643	0.493	0.000	0.364	0.431	0.000	0.000	1.437	1.548
0.997	1.465	0.402	0.701	0.658	0.617	0.664	0.450	0.579	0.549	0.510	0.000	0.761	0.390	0.630	0.000	0.517	0.500	0.815	0.000	0.892	0.697	0.664	0.675	0.477	0.000	0.452	0.000	0.000	1.594	1.628
0.000	0.000	0.000	0.000	0.836	0.000	1.150	0.000	1.666	1.674	2.275	0.000	2.006	1.373	1.799	0.000	1.506	0.000	1.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.671	0.782	0.251	0.540	0.900	0.851	0.886	0.443	0.529	0.499	0.445	0.000	0.831	0.443	0.578	0.354	0.000	0.540	1.543	0.401	0.826	0.537	0.675	0.901	0.000	0.000	0.762	0.000	2.265	0.000	0.000
0.656	1.176	0.000	0.346	0.639	0.575	0.532	0.436	0.383	0.422	0.377	0.000	0.831	0.348	0.451	0.000	0.000	0.459	0.658	0.364	0.595	0.528	0.602	0.929	0.820	0.000	0.669	0.000	1.828	1.837	1.673
0.599	1.088	0.000	0.415	0.786	0.630	0.655	0.465	0.624	0.515	0.490	0.000	0.774	0.315	0.393	0.000	0.295	0.538	0.812	0.420	0.671	0.000	0.753	1.123	0.989	0.000	0.603	0.000	0.000	2.045	1.838
0.470	0.938	0.000	0.000	0.363	0.486	0.353	0.000	0.521	0.361	0.464	0.000	0.430	0.000	0.000	0.000	0.348	0.611	1.065	0.358	0.698	0.509	0.660	0.940	0.788	0.499	0.630	0.000	2.022	1.733	0.000
0.692	1.011	0.000	0.474	0.733	0.718	0.757	0.598	0.873	0.794	0.946	0.000	0.959	0.562	0.795	0.000	0.556	0.466	0.937	0.388	0.662	0.498	0.723	1.275	0.635	0.000	0.000	1.361	1.791	0.000	1.813
0.659	1.053	0.000	0.430	0.625	0.701	0.635	0.550	0.966	0.845	0.997	0.000	1.081	0.000	0.738	0.000	0.577	0.517	0.816	0.380	0.658	0.000	0.800	0.863	0.633	0.531	0.574	0.000	1.713	0.000	1.924
0.772	0.352	0.000	0.643	0.941	0.854	0.922	0.301	1.210	1.116	1.381	0.000	1.890	1.154	1.602	0.000	0.768	0.493	0.968	0.000	0.000	0.000	0.499	0.626	0.400	0.568	0.609	0.000	0.851	1.080	1.117
0.660	1.037	0.208	0.331	0.493	0.575	0.000	0.451	0.457	0.454	0.397	0.000	0.760	0.323	0.358	0.250	0.419	0.499	0.892	0.361	0.673	0.646	0.630	0.856	0.689	0.000	0.660	0.000	1.818	1.775	1.801
0.742	1.243	0.000	0.390	0.000	0.617	0.000	0.456	0.496	0.471	0.427	0.000	0.853	0.438	0.442	0.347	0.416	0.617	0.599	0.000	0.758	0.661	0.646	0.848	0.685	0.000	0.743	0.000	1.791	1.824	1.995
1.009	1.378	0.000	0.455	0.617	0.701	0.697	0.539	0.685	0.614	0.564	0.000	0.824	0.443	0.478	0.000	0.539	0.568	0.546	0.417	0.709	0.644	0.578	0.932	0.854	0.000	0.613	0.000	0.000	1.898	0.000
0.999	1.608	0.000	0.472	0.655	0.660	0.655	0.409	0.445	0.000	0.346	0.000	0.686	0.344	0.353	0.000	0.402	0.394	0.566	0.000	0.731	0.746	0.748	0.849	0.668	0.643	0.000	1.171	0.000	1.784	0.000
0.984	1.196	0.000	0.463	0.000	0.682	0.645	0.413	0.635	0.771	0.000	0.000	1.058	0.957	0.000	0.000	0.648	0.489	0.000	0.374	0.699	0.820	0.413	0.735	0.614	0.623	0.561	1.030	0.000	1.319	0.000
0.895	1.220	0.000	0.529	0.626	0.685	0.697	0.528	0.794	0.907	0.677	0.000	1.091	0.955	0.000	0.000	0.654	0.585	0.526	0.000	0.656	0.688	0.601	0.854	0.754	0.658	0.603	0.000	0.000	1.420	0.000
0.978	1.165	0.000	0.584	0.690	0.750	0.778	0.489	0.605	0.713	0.505	0.000	1.005	0.874	0.000	0.000	0.786	0.541	0.456	0.000	0.775	0.959	0.375	0.684	0.580	0.573	0.536	1.036	0.000	1.361	1.371
0.582	0.617	0.310	0.421	0.723	0.884	0.000	0.478	0.760	0.918	0.674	0.000	1.169	0.928	0.805	0.463	0.610	0.395	0.718	0.583	0.587	0.000	0.725	1.071	0.914	0.799	0.890	0.000	0.000	1.679	0.000
0.922	1.547	0.516	0.503	0.852	0.919	0.778	0.416	0.794	0.930	0.716	0.000	1.277	1.070	0.873	0.551	0.677	0.000	0.527	0.000	0.670	0.701	0.671	0.921	0.789	0.805	0.000	1.034	0.000	1.517	0.000
0.857	1.497	0.396	0.497	0.700	0.805	0.728	0.576	0.859	1.051	0.780	0.000	1.174	0.935	0.872	0.000	0.724	0.425	0.532	0.000	0.537	0.561	0.718	1.061	1.020	0.789	0.786	1.072	0.000	1.728	1.738
0.616	0.931	0.215	0.406	0.802	0.962	0.807	0.453	0.980	1.234	0.976	0.000	1.179	0.881	0.789	0.000	0.835	0.470	0.693	0.264	0.444	0.468	0.777	1.091	0.891	0.807	0.812	1.295	1.693	0.000	1.488
0.899	1.525	0.000	0.396	0.785	0.885	0.726	0.440	0.500	0.562	0.424	0.000	1.289	1.010	0.852	0.000	0.466	0.530	0.634	0.298	0.524	0.601	0.603	1.061	0.947	0.782	0.757	1.089	0.000	1.525	0.000
0.000	1.112	0.273	0.450	0.746	0.870	0.000	0.407	0.489	0.553	0.418	0.000	1.105	0.876	0.000	0.000	0.000	0.593	0.679	0.368	0.687	0.665	0.553	0.859	0.702	0.732	0.844	0.000	1.624	0.000	1.545
1.174	1.712	0.387	0.530	0.702	0.823	0.000	0.404	0.641	0.782	0.570	0.000	1.140	0.965	0.000	0.000	0.729	0.474	0.551	0.518	0.824	0.732	0.427	0.723	0.537	0.664	0.618	0.000	0.000	1.343	0.000
0.000	1.755	0.000	0.594	0.739	0.753	0.000	0.514	0.815	0.952	0.755	0.000	1.266	1.025	0.000	0.000	0.949	0.000	0.557	0.000	0.644	0.726	0.631	1.165	1.377	0.887	0.829	0.000	0.000	1.745	0.000
0.973	1.494	0.288	0.518	0.652	0.777	0.000	0.420	0.772	0.918	0.630	0.000	0.993	0.734	0.569	0.489	0.730	0.458	0.492	0.383	0.731	0.702	0.509	0.741	0.571	0.634	0.671	0.000	1.257	1.343	1.359
1.218	1.884	0.605	0.615	0.813	0.922	0.000	0.494	0.507	0.601	0.441	0.000	1.326	1.048	0.834	0.437	0.644	0.377	0.566	0.575	0.753	0.733	0.558	0.803	0.709	0.741	0.731	0.000	0.000	1.438	0.000
1.027	1.680	0.356	0.492	0.699	0.820	0.625	0.475	0.695	0.806	0.563	0.000	1.197	0.953	0.762	0.000	0.609	0.452	0.707	0.352	0.588	0.534	0.721	1.078	0.792	0.773	0.803	1.255	1.642	1.478	0.000
0.737	1.150	0.430	0.497	0.623	0.692	0.000	0.521	0.578	0.680	0.450	0.000	1.130	0.941	0.780	0.342	0.539	0.480	0.675	0.353	0.602	0.659	0.847	1.045	0.822	0.791	0.812	0.000	1.365	1.373	0.000
0.944	1.748	0.521	0.576	0.740	0.753	0.000	0.441	0.746	0.851	0.746	0.000	1.226	0.933	0.887	0.377	0.722	0.000	0.503	0.402	0.605	0.696	0.792	0.978	0.731	0.700	0.764	0.000	1.318	1.317	1.319
0.000	1.458	0.337	0.399	0.721	0.723	0.704	0.421	0.768	0.700	0.644	0.000	1.175	0.952	0.000	0.326	0.652	0.000	0.526	0.281	0.496	0.554	0.714	0.977	0.942	0.761	0.650	0.000	1.422	1.595	0.000
0.988	1.664	0.376	0.483	0.637	0.738	0.000	0.427	0.626	0.683	0.482	0.000	1.092	0.858	0.000	0.000	0.000	0.440	0.612	0.337	0.597	0.536	0.608	0.896	0.655	0.697	0.740	0.000	1.491	1.426	1.458
0.776	1.080	0.336	0.601	0.845	0.870	0.776	0.630	0.765	0.884	0.704	0.000	1.237	0.968	0.892	0.000	0.000	0.704	0.502	0.503	0.925	0.000	0.330	0.536	0.410	0.480	0.713	1.253	1.369	0.000	1.520
0.473	0.663	0.251	0.605	0.904	0.881	0.750	0.583	1.054	1.198	0.993	0.000	1.326	0.960	0.962	0.000	0.604	0.516	0.472	0.306	0.660	0.461	0.390	0.521	0.000	0.583	0.765	1.066	1.096	0.000	1.112
0.689	0.918	0.261	0.702	0.902	0.910	0.000	0.640	0.685	0.758	0.600	0.000	1.163	0.893	0.705	0.358	0.585	0.542	0.435	0.537	0.910	0.000	0.380	0.687	0.488	0.621	0.791	1.342	1.540	1.561	1.726
0.715	0.866	0.282	0.530	0.714	0.759	0.000	0.719	0.821	0.919	0.673	0.000	1.236	0.916	0.742	0.341	0.609	0.481	0.472	0.521	0.987	0.000	0.362	0.673	0.577	0.598	0.720	1.329	0.000	0.000	1.595
0.635	0.751	0.235	0.680	0.799	0.770	0.000	0.604	0.857	0.896	0.680	0.000	1.226	0.894	0.747	0.313	0.668	0.542	0.454	0.555	0.879	0.000	0.411	0.688	0.487	0.000	0.772	1.225	0.000	1.506	1.645
0.636	0.802	0.321	0.655	0.695	0.765	0.000	0.546	0.784	0.807	0.623	0.000	1.319	0.975	0.885	0.000	0.645	0.576	0.460	0.395	0.716	0.000	0.452	0.744	0.531	0.649	0.845	1.090	0.000	1.420	1.626
0.634	1.048	0.000	0.471	0.630	0.696	0.000	0.503	0.697	0.725	0.641	0.000	0.939	0.839	0.000	0.576	0.000	0.479	0.323	0.349	0.596	0.510	0.361	0.713	0.411	0.000	0.751	0.993	0.000	1.191	1.274
0.756	1.154	0.331	0.578	0.781	0.914	0.000	0.504	0.821	0.951	0.739	0.000	1.226	0.891	0.000	0.000	0.752	0.586	0.418	0.399	0.798	0.721	0.436	0.734	0.511	0.000	0.868	0.000	0.000	0.000	1.688
0.923	1.371	0.341	0.666	0.762	0.862	0.000	0.619	0.636	0.707	0.665	0.000	1.160	0.789	0.677	0.000	0.717	0.727	0.360	0.552	0.923	0.000	0.469	0.795	0.557	0.000	0.956	0.000	0.000	0.000	1.763
0.770	1.249	0.400	0.637	0.853	0.981	0.756	0.590	0.787	0.892	0.723	0.000	1.044	0.699	0.589	0.506	0.702	0.587	0.343	0.426	0.750	0.699	0.350	0.669	0.440	0.000	0.797	0.983	0.000	0.000	1.569
0.568	0.846	0.278	0.624	0.663	0.694	0.000	0.521	0.513	0.487	0.510	0.000	1.200	0.933	0.813	0.486	0.521	0.645	0.453	0.556	0.652	0.780	0.400	0.803	0.645	0.658	0.803	0.000	0.000	1.385	1.526
0.611	0.857	0.000	0.604	0.841	0.864	0.000	0.410	0.697	0.735	0.537	0.000	1.213	0.883	0.699	0.375	0.538	0.499	0.400	0.686	0.720	0.000	0.419	0.607	0.412	0.000	0.778	1.091	0.000	1.261	1.514
0.689	0.980	0.315	0.666	0.745	0.776	0.000	0.492	0.905	0.949	0.713	0.000	1.230	0.910	0.772	0.000	0.730	0.651	0.415	0.711	0.719	0.677	0.344	0.592	0.371	0.000	0.847	1.078	1.297	0.000	1.639
0.779	1.065	0.362	0.688	0.850	0.866	0.000	0.541	0.674	0.730	0.575	0.000	1.116	0.837	0.678	0.488	0.587	0.631	0.349	0.471	0.900	0.000	0.313	0.485	0.000	0.000	0.805	1.075	1.257	0.000	1.557
0.690	1.003	0.283	0.557	0.690	0.708	0.000	0.000	0.604	0.654	0.611	0.000	0.972	0.718	0.000	0.000	0.000	0.665	0.313	0.427	0.702	0.566	0.411	0.508	0.000	0.586	0.708	0.000	0.000	1.227	1.393
0.707	0.864	0.311	0.633	0.782	0.910	0.782	0.637	0.705	0.763	0.571	0.000	1.264	0.941	0.784	0.000	0.695	0.572	0.467	0.603	0.962	0.834	0.559	0.899	0.699	0.000	0.000	0.000	0.000	0.000	1.659
0.737	1.025	0.356	0.661	0.883	0.896	0.000	0.575	0.749	0.811	0.622	0.000	1.272	0.910	0.805	0.000	0.652	0.631	0.433	0.000	0.820	0.000	0.358	0.674	0.464	0.644	0.839	1.105	1.330	0.000	1.521
0.673	0.851	0.316	0.691	0.853	0.909	0.735	0.552	0.738	0.793	0.730	0.000	1.162	0.821	0.704	0.000	0.735	0.612	0.394	0.504	0.812	0.000	0.437	0.687	0.501	0.668	0.844	1.063	1.344	0.000	1.705
0.839	1.393	0.000	0.643	0.817	0.881	0.705	0.544	0.617	0.635	0.636	0.000	1.309	0.920	0.861	0.000	0.655	0.635	0.479	0.442	0.809	0.000	0.363	0.718	0.524	0.720	0.776	1.035	0.000	0.000	1.632
0.733	1.137	0.302	0.600	0.704	0.782	0.643	0.634	0.750	0.797	0.595	0.000	1.271	0.867	0.801	0.000	0.671	0.586	0.414	0.447	0.782	0.000	0.377	0.745	0.480	0.684	0.722	1.044	0.000	1.364	1.515

47.87	464.19	483.84	486.76	491.96	496.91
0.359	0.359	0.590	0.000	0.479	0.444
0.468	0.468	0.662	0.000	0.564	0.487
0.358	0.358	0.653	0.000	0.666	0.403
0.349	0.349	0.438	0.438	0.337	0.000
0.421	0.421	0.648	0.674	0.435	0.377
0.576	0.576	0.997	0.864	0.864	0.407
0.582	0.582	0.767	0.833	0.757	0.472
0.700	0.700	1.064	1.070	1.030	0.000
0.537	0.537	0.843	0.778	0.827	0.481
0.631	0.631	0.880	0.924	0.808	0.424
0.000	0.000	0.000	0.000	0.000	0.000
0.760	0.760	1.173	0.000	1.025	0.000
0.800	0.800	0.000	0.000	1.583	0.000
0.900	0.900	1.425	0.000	1.258	0.000
0.000	0.000	0.000	0.491	0.491	0.000
0.507	0.507	0.723	0.692	0.610	0.427
0.563	0.563	0.942	0.000	0.920	0.531
0.636	0.636	1.068	0.000	0.826	0.000
0.612	0.612	0.803	0.721	0.680	0.547
0.620	0.620	0.000	0.000	0.777	0.000
0.364	0.364	0.591	0.501	0.443	0.424
0.428	0.428	0.634	0.000	0.391	0.475
0.376	0.376	0.681	0.541	0.333	0.000
0.445	0.445	0.697	0.000	0.390	0.333
0.000	0.000	0.000	0.723	0.000	0.000
0.609	0.609	1.008	0.000	0.724	0.789
0.871	0.871	1.441	1.393	0.987	0.765
0.604	0.604	0.854	0.675	0.000	0.641
0.711	0.711	0.000	0.000	1.303	0.854
0.734	0.734	1.944	1.903	1.551	0.000
0.000	0.000	0.000	0.000	1.294	1.154
0.000	0.000	2.074	1.885	2.025	0.000
1.125	1.125	1.856	1.836	1.424	1.276
1.127	1.127	1.914	1.872	1.705	1.344
0.000	0.000	2.464	0.000	2.083	0.000
0.991	0.991	0.000	1.828	1.397	1.012
0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	1.737	1.296	1.052
0.000	0.000	1.656	1.741	1.290	1.185
0.000	0.000	1.633	1.735	1.401	1.338
0.000	0.000	0.000	0.000	0.000	0.000
1.200	1.200	2.128	0.000	2.038	0.000
0.873	0.873	2.170	0.000	1.661	0.000
0.930	0.930	2.262	0.000	1.734	0.000
0.930	0.930	2.389	0.000	1.880	0.000
1.011	1.011	1.805	1.592	1.444	0.000
0.875	0.875	1.792	1.695	1.309	1.117
0.721	0.721	0.558	0.000	0.558	0.000
0.930	0.930	2.045	0.000	1.640	1.191
0.973	0.973	2.735	0.000	1.657	1.320
1.098	1.098	1.753	1.770	1.442	1.409
1.296	1.296	1.587	1.600	1.447	1.414
0.804	0.804	1.074	1.037	1.048	1.154
0.885	0.885	1.165	1.120	1.033	1.118
0.825	0.825	1.194	1.193	1.103	1.265
0.891	0.891	1.491	1.519	1.143	1.033
0.934	0.934	1.076	1.140	0.954	0.998
0.974	0.974	1.239	1.201	0.993	0.945
0.959	0.959	1.332	1.248	1.279	0.884
1.021	1.021	1.319	1.231	1.150	1.116
0.953	0.953	1.461	0.000	1.383	1.123
0.902	0.902	1.335	1.354	1.159	1.245
0.976	0.976	1.559	0.000	0.000	1.085
0.865	0.865	1.507	1.505	1.180	1.167
0.869	0.869	1.382	1.399	1.156	1.177
1.087	1.087	1.670	1.671	1.444	0.991
1.056	1.056	1.658	1.584	1.206	1.060
1.103	1.103	0.000	1.589	0.972	0.997
1.135	1.135	1.389	1.437	0.000	0.965
0.939	0.939	1.563	1.560	1.340	0.000
0.000	0.000	0.000	1.730	1.242	1.287
0.000	0.000	1.331	0.000	0.893	0.930
0.779	0.779	0.000	1.778	1.315	1.277
0.000	0.000	0.000	1.605	1.198	0.000
0.000	0.000	0.000	2.063	1.222	1.189
0.000	0.000	0.000	2.010	1.207	1.152
0.000	0.000	1.418	0.000	0.949	0.987
0.000	0.000	1.989	0.000	0.000	1.301
0.000	0.000	1.936	0.000	0.000	0.000
0.000	0.000	1.772	0.000	1.030	1.199
0.706	0.706	0.000	2.100	1.060	1.062
0.812	0.812	0.000	2.318	0.000	1.156
0.000	0.000	0.000	2.053	1.098	1.188
0.797	0.797	0.000	2.001	0.000	1.267
0.839	0.839	0.000	1.730	0.000	1.162
0.000	0.000	0.000	2.229	0.000	1.159
0.000	0.000	0.000	1.949	0.000	1.276
0.000	0.000	0.000	1.806	1.192	1.132
0.000	0.000	0.000	1.788	0.000	1.213
0.000	0.000	0.000	0.000	1.027	1.077