



Supplement of

Response of coastal California hydroclimate to the Paleocene–Eocene Thermal Maximum

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Supplement

Grain size analyses

Grain particle size was measured using laser diffraction (i.e., light scattering). The system at UCSC is a Beckman Coulter with Polarization Intensity Differential Scatter (PIDS) which better resolves submicron clay particles. This instrument measures particle size distribution in volume, number and surface area with size ranging from 17 nm to 2000 μm . Sample preparation followed the protocols in Blott et al., (2004) using 2 to 5 mg bulk sediments that were dried and sieved (through 2-mm sieve). Each sample was treated with sodium hexametaphosphate (Calgon) prior to the measurement for better dispersion and ultrasonication about 30s to ensure reproducibility.

Grain size can provide insight into sediment transport dynamics, energy conditions within the fluvial system associated with river discharge intensity (e.g., Dade and Friend, 1998). Specifically, grain size distribution can potentially be used to qualitatively assess relative variations in sediment transport (i.e. fluvial activity) and thus hydroclimate during the PETM to the extent influences of local sea level change can be constrained. Globally, a gradual rise in sea level has been documented in multiple locations (Sluijs et al., 2008) which in theory would tend to favor a shift toward lower grain size. The Lodo grain size record, however, shows several abrupt shifts/anomalies that appear to be unrelated to sea level. The bimodal skewed grain size distribution of Lodo Formation is unusual and might reflect on enhanced physical erosion during the PETM onset (Fig S1). Decreased mean grain size (d_{50}) (i.e., silt to clay) is consistent with higher stream flow velocity and the resuspension of finer clay size particles (see Singer 1984; Van Rijn 2007).

Leaf wax *n*-alkane extraction and separation

Total lipid extracts were concentrated under a stream of purified nitrogen using a Zymark Turbovap II evaporator, transferred to 4 ml vials, and further evaporated under a gentle stream of N_2 gas. Extracts were then separated by column chromatography using 1g deactivated silica gel (70-230 mesh) in an ashed Pasteur pipette, and eluted with 2 ml hexane, 4 ml DCM and 4 ml of MeOH to obtain the aliphatic, aromatic, and polar hydrocarbons, respectively. Samples were

processed with a fused silica, DB-1 phase column (60 m × 0.25 mm I.D., 0.25 µm film thickness) with helium as the carrier at a flow of 2ml/min. GC oven temperature program was 60-320°C @ 10°C/min and isothermal for 30 min. *N*-alkanes were identified through comparison of elution times with known *n*-alkane standards.

Biomarker identification and abundance were determined using a Thermo Trace 2000 gas chromatograph (GC) fitted with a split/splitless injector (splitless mode, 300°C). Isotope analyses were performed using a Thermo Trace 2000 GC coupled to a Finnigan MAT 253 isotope ratio mass spectrometer interfaced with a GC-C III combustion system or a High Temperature Conversion system for $\delta^{13}\text{C}$ and $\delta^2\text{H}$ analyses, respectively. The H3+ factor was determined daily prior to standard calibration and sample analysis for $\delta^2\text{H}$ measurements. GC column, carrier flow, and ramp conditions were identical to above.

Extreme Value Analysis

To investigate changes in the frequency of heavy precipitation events (i.e., thick exceedance tail) in the modeling output, an extreme value analysis (Coles et al., 2001) was utilized to identify extreme deviations from the median of probability distributions in precipitation. We use the CAM5 simulations to test whether substantial changes in the frequency of extreme events locally occur from pre-PETM to PETM. In order to estimate the extreme value index but not rely on fitting certain distribution (i.e., normal, log-normal), we search for consistent behavior based on the central limit theorem. Peaks over threshold (POT) method were used to focus on exceedance over certain thresholds for extreme value distribution fit. To find the consistent behavior of exceedance distribution, Generalized Pareto Distribution (GPD) can represent any kind of exceedance distribution (i.e., exponential, normal etc.). If we have the threshold u , the excess distribution over the threshold u has the distribution function:

$$F_u(y) = P(X \leq u + y | X > u) = \frac{F_X(u+y) - F_X(u)}{1 - F_X(u)}$$

where $y \geq 0$; Then if $u \rightarrow \infty$, no matter the underlying distribution of X , this distribution function (cdf) $F_u(y)$ will converge to a Generalized Pareto distribution $GPD(x)$:

$$GPD(x) = \begin{cases} 1 - \left(1 + \xi \frac{(x-\mu)}{\sigma}\right)^{-\frac{1}{\xi}} & \xi \neq 0 \\ 1 - \exp\left(-\frac{(x-\mu)}{\sigma}\right) & \xi = 0 \end{cases}$$

ξ is the extreme value index. μ is a location parameter, σ is a scale parameter.

If $\xi < 0$, there is an upper bound.

If $\xi = 0$, the distribution is an exponential distribution, with no upper bound.

If $\xi > 0$, the distribution is Pareto distribution (Type IV), with a thicker tail.

Leaf wax proxy model

To investigate how seasonal precipitation $\delta^2H_{\text{precip}}$ affects the vegetation leaf wax hydrogen isotope fractionation during the PETM, we use a leaf wax proxy model to compute leaf water δ^2H variations from pre-PETM to PETM. The model calculates the leaf water δ^2H composition ($\delta^2H_{\text{leaf water}}$) based on a summation of monthly precipitation $\delta^2H_{\text{precip}}$ estimates weighted by the monthly proportion within the growing season (w_{GS}) and the precipitation amount fraction of the total precipitation over the growing season (w_{PA}):

$$\delta^2H_{\text{monthly precipitation}} = \sum(\delta^2H_{\text{monthly precipitation}} w_{\text{GS}} w_{\text{PA}})$$

The model assumes negligible fractionation between the soil water and leaf water pools. For input of precipitation δ^2H in the model we use water-isotope enabled iCESM1.2 model to compute leaf water δ^2H in the context of simulated seasonal precipitation and prescribed changes in growing season length (for pre-PETM and PETM). The model-simulated δ^2H leaf water value is the precipitation amount weighted annual δ^2H precipitation value as it is sampled by plants in the growing season (Fig S2).

The hydrogen isotope composition of leaf waxes reflects the δ^2H composition of precipitation during the growing season (Sachse et al., 2012). Climate conditions (temperature, precipitation) across the PETM may have lengthened the growing season and therefore the δ^2H composition of the soil water pool sampled by plants to synthesize their leaf waxes. To simulate the cross interaction of changes in growing season length and the precipitation seasonality, the model

accounts for a variable growing season length by weighting the $\delta^2\text{H}$ of monthly precipitation by the proportion of that month included in the growing season. Here, we centered the growing season in December, the month of highest simulated precipitation amount (Fig 4b, 4c). Changes in growing season length were made symmetrically; for example, an addition of 30 days to the growing season length is implemented as 15 additional days of spring growth and 15 additional days of fall growth.

Because vegetation type is unconstrained for the Lodo Section across the Paleocene-Eocene boundary (see main text), we cannot directly compare leaf wax model output for the pre-PETM and PETM scenarios and the leaf wax $\delta^2\text{H}$ data. Instead, we compare the difference between model-estimated leaf water $\delta^2\text{H}$ differences with proxy leaf wax $\delta^2\text{H}$ differences from pre-PETM to PETM. Since no significant change in local vegetation type across the PETM is indicated by the average chain length of *n*-alkanes in our study interval (Fig S3) (ACL calculation followed by Tipple et al., 2011 equation (1)), there was probably little change in the apparent fractionation (ε_p) between precipitation and leaf waxes across the PETM. As such the leaf wax $\delta^2\text{H}$ change observed in the Lodo section is likely proportional to the change in leaf water $\delta^2\text{H}$ composition.

The water-isotope enabled iCESM1.2 model output-driven leaf wax model estimates a PETM (-59.14‰) – prePETM (-63.34‰) leaf water $\delta^2\text{H}$ difference of 4.2‰ assuming a 365-day growing season. Arbitrarily shortening the growing season to 90 days (centered on December) in the pre-PETM (-65.9‰) and lengthening it to 365 days in the PETM yields a leaf water $\delta^2\text{H}$ difference of 6.7‰. This result suggests any potential change in growing season length across the PETM had little influence on the leaf wax $\delta^2\text{H}$ signal since the change in growing season length of 275 days only changed the simulated PETM – pre-PETM difference by 2.5‰. We also examined the other sites for comparison of the predicted leaf water $\Delta\delta^2\text{H}$ with proxy leaf wax $\Delta\delta^2\text{H}$ from pre-PETM to PETM with same assumption of no significant change in local vegetation during the PETM. The proxy difference calculation of $\delta^2\text{H}_{n\text{-alkane}}$ is based on average $\delta^2\text{H}_{n\text{-C}29}$ of pre-PETM and PETM values respectively. Low sampling resolution and model uncertainties may bias the results. Nonetheless, another mid-latitude site (i.e., Forada paleolat~40°N) and a subtropical site (i.e., Tanzania paleolat~18°S) exhibit little change as does the Arctic Lomonosov ridge site (paleolat~82.95°N). As models show increasing precipitation in the high latitude/tropical area during the PETM, local vegetation regime (variable ε_p) may change in the growth season

compared to pre-PETM a factor not included in the proxy model. All sites have limited stratigraphic constraints of the CIE/PETM, cautions need to be taken when comparing the differences between each sites.

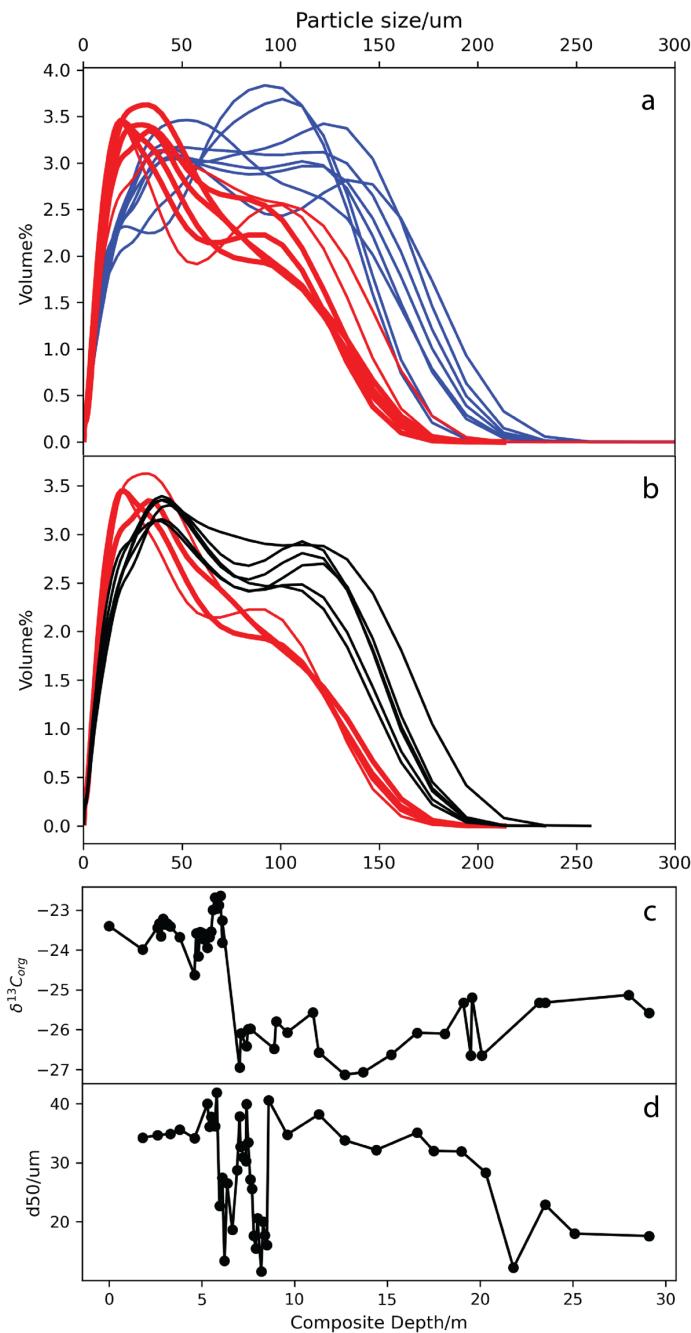


Fig. S1. Grain size distribution in pre-CIE (blue)(a), CIE-onset(red)(a,b) and CIE/PETM main body(black)(b). Large particle size(silt) in pre-PETM with Gaussian distribution(a) with more left skewed distribution across CIE-onset to stable bimodal distribution(b) in the PETM main body. (d)Mean particle size (d50: 50% of the total particle size in sediments) corresponds to CIE onset change in $\delta^{13}\text{C}_{\text{org}}$ (c)showing an increase in the relative flux of finer grain sizes during the PETM.

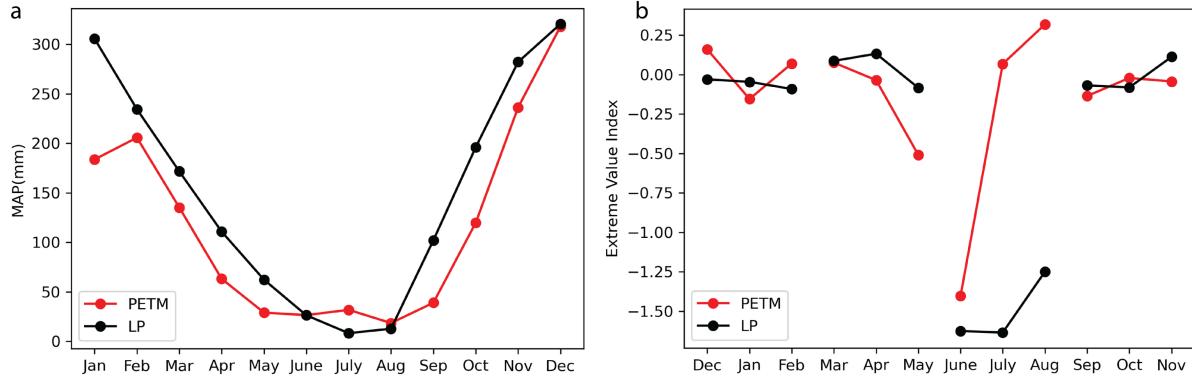


Fig. S2. (a) High resolution CAM5 model output of mean monthly precipitation over 15 model years in central coastal California regions during pre-PETM (Late Paleocene/LP) under low $p\text{CO}_2$ (680 ppmv) and PETM under high $p\text{CO}_2$ (1590ppmv). (b) Extreme value index (ξ) comparison of mean monthly precipitation in all seasons (winter: DJF, spring: MAM, summer: JJA, fall: SON) of central coastal California region.

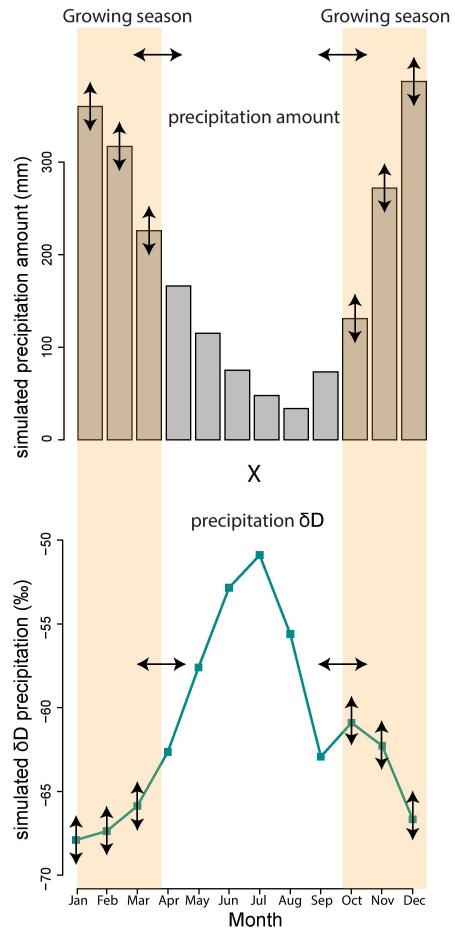


Fig. S3. The leaf wax proxy model results for the Lodo Site. The model calculates the interactive effects of precipitation amount (grey bars), $\delta^2\text{H}$ of precipitation (blue squares), and growing season length (orange shading). Arrows show variables that can be manipulated (precipitation amount, δD precipitation, growing season length) to modify the modeled leaf water $\delta^2\text{H}$ value.

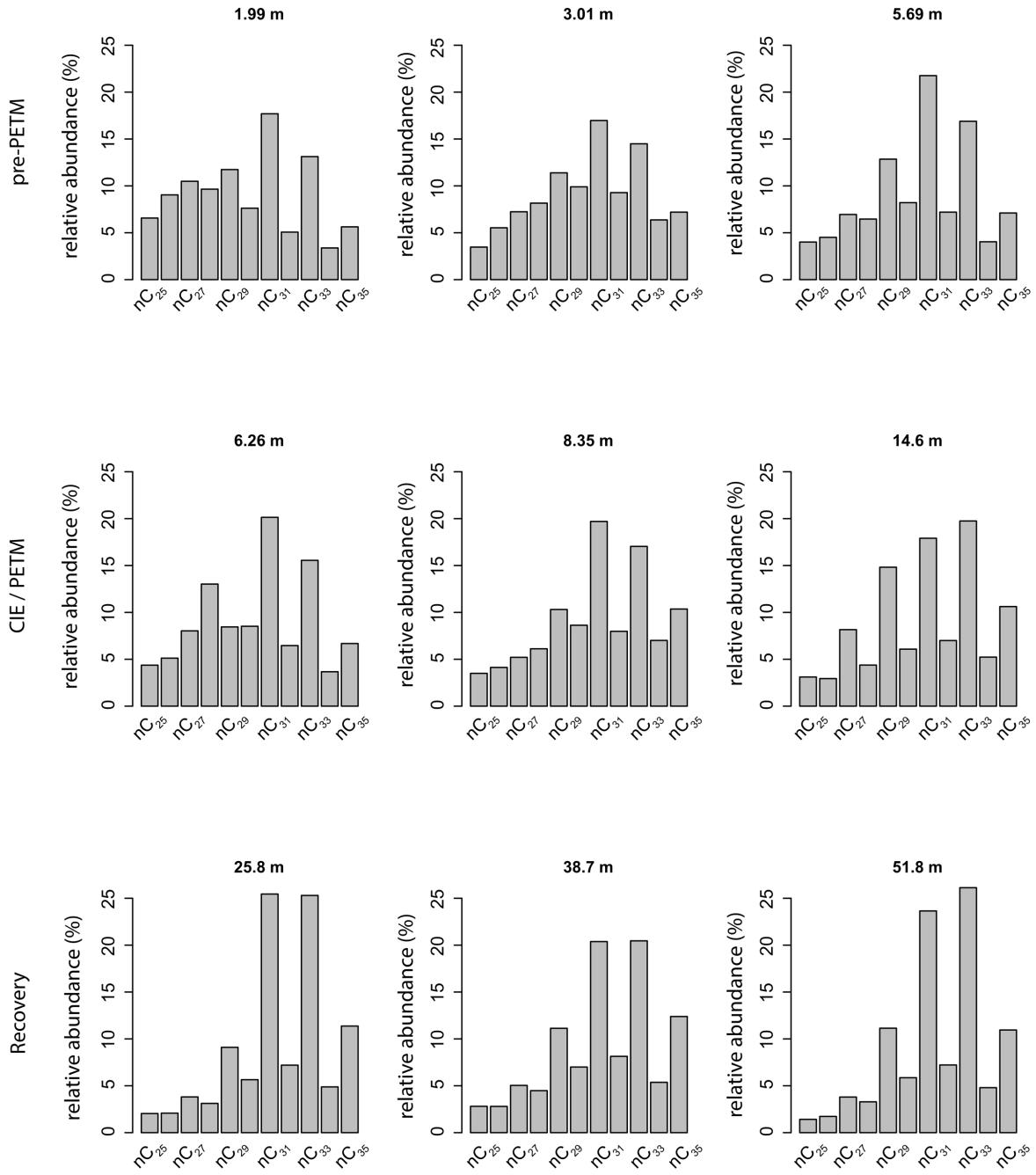


Fig. S4. Histograms show the distribution of long-chain *n*-alkanes of representative samples from pre-PETM, CIE/PETM, and Post-PETM(Recovery) in Lodo site.

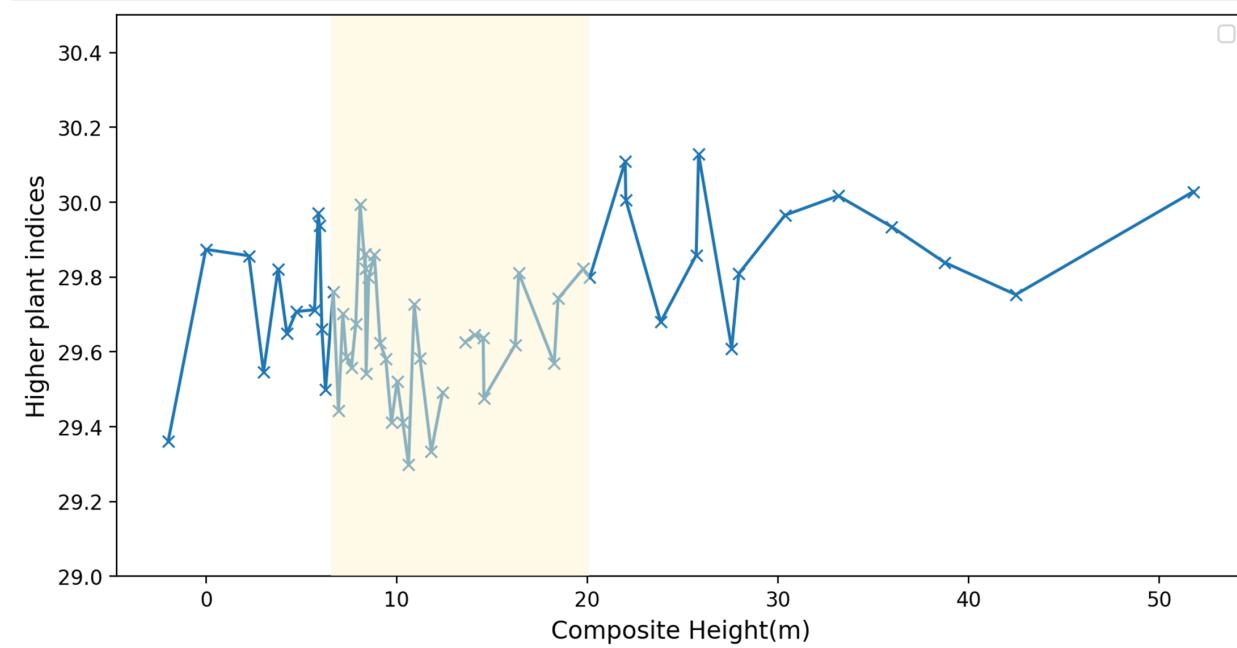


Fig. S5. Higher plant average chain length (ACL) of leaf waxes recovered from the Lodo Formation. Values fall within a narrow range with no clear trends across the CIE onset (light yellow shade).

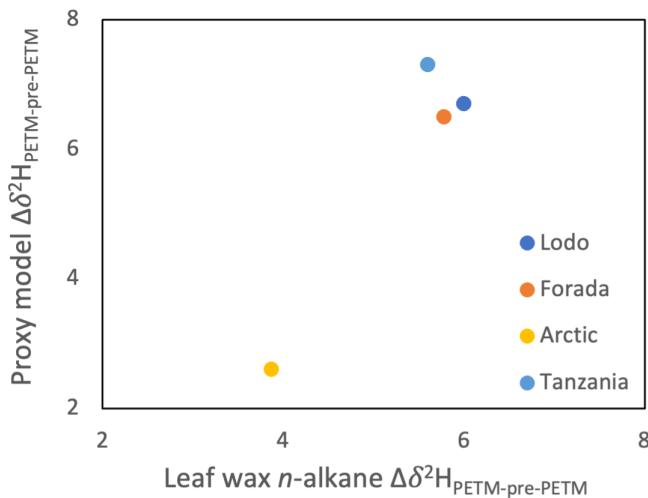


Fig. S6. Comparison of $\Delta\delta^2\text{H}(\text{\textperthousand})$ between predicted leaf water and leaf wax *n*-alkane (C₂₉) from pre-PETM to PETM for several sites spanning tropical to polar latitudes (Forada paleolat~40°N, Lodo paleolat~42°N, Lomonosov Arctic paleolat~82.95°N, Tanzania paleolat~18°S). The predicted values were computed using i-CESM output and the leaf wax proxy model described above.

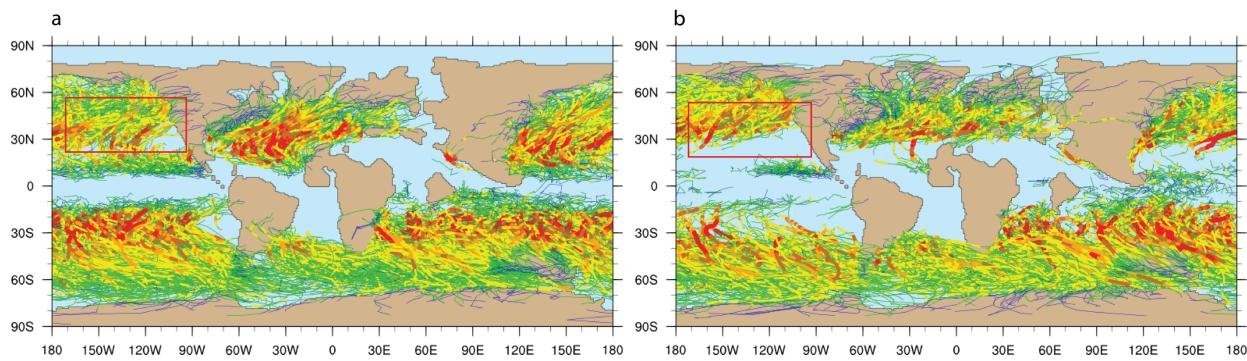


Fig. S7. Tropical cyclone tracks for (a) pre-PETM (b) PETM, model simulations. Color coding follows the Saffir-Simpson intensity scale and is as follows: Blue- tropical depressions, Green- Tropical storm, Yellow – Category 1, Orange – Category 3, and Red Category 4–5. Red square denote study regions. (Modified from Kiehl et al 2021)

Data Table S1. Clay assemblage data of the Lodo Gulch section, central California.

Composite Height(m)	Kaolinite%	Smectite%	Chlorite%	Illite%	K/S	I/S	C/S
1.8	0	49.3670886	0	30.3797468	0	0.61538462	0
3.8	0	0	0	0	0	0	0
3.92	13.19	39.516129	18.2622269	29.0322581	0.33378776	0.73469388	0.46214615
4.2	0	0	0	0	0	0	0
4.49	14.949495	44.5454546	18.6868687	21.8181818	0.33560091	0.48979592	0.41950113
4.84	15.0442478	50.4424779	15.0442478	19.4690266	0.29824561	0.38596491	0.29824561
5.04	12.75	61.589404	16.3907285	9.27152318	0.20701613	0.15053763	0.26612903
5.35	4.89596083	47.2868217	10.6079151	37.2093023	0.10353753	0.78688525	0.22433132
5.87	4.34362934	75	11.7277992	8.92857143	0.05791506	0.11904762	0.15637066
6.1	16.2721088	55.4285714	10.0136054	18.2857143	0.29356897	0.32989691	0.18065783
6.16	4.3064877	78.5234899	5.08948546	12.0805369	0.05484331	0.15384615	0.06481482
6.44	7.38177624	60.7843137	8.30449827	23.5294118	0.12144213	0.38709677	0.13662239
6.61	2.39520958	66.4670659	7.18562874	23.9520958	0.03603604	0.36036036	0.10810811
6.8	5.98113642	71.9806763	6.57925006	15.4589372	0.08309364	0.2147651	0.091403
7.02	8.63585479	63.3136095	12.6659204	15.3846154	0.13639808	0.24299065	0.20005052
7.22	6.4484127	52.3809524	9.42460318	31.7460318	0.12310606	0.60606061	0.17992424
7.4	8.64	32.3809524	22.7857143	36.1904762	0.26682353	1.11764706	0.70367647
7.6	0	25.8215962	23.4741784	50.7042254	0	1.96363636	0.90909091
7.8	0	100	0	0	0	0	0
8	5.94650206	72.7777778	3.49794239	17.7777778	0.08170766	0.24427481	0.04806333
8.3	16.55	83.4532374	0	0	0.19831466	0	0
8.4	0	96.2264151	0	0	0	0	0
8.6	4.11	28.9017341	21.9044722	45.0867052	0.142206	1.56	0.75789474
8.8	9.43	68.159204	10.4739461	11.9402985	0.13835256	0.17518248	0.15366884
9	3.57	22.7642276	20.0049273	53.6585366	0.156825	2.35714286	0.87878788
9.4	24.26	67.8688525	0	7.86885246	0.35745411	0.11594203	0
9.6	11.06	20.610687	11.8452224	56.4885496	0.53661482	2.74074074	0.57471264
11.3	13.76	40.7407407	10.3174603	35.1851852	0.33774546	0.86363636	0.25324675
12.1	24.05	75.9493671	0	0	0.31665833	0	0
14.4	19.48	33.8129496	12.1748755	34.5323741	0.57611064	1.0212766	0.36006547
16.6	12.02	27.3381295	16.032888	44.6043166	0.43967895	1.63157895	0.58646617
19	16.82	14.6417446	14.953271	53.5825545	1.14877021	3.65957447	1.0212766
20.1	35.29	22.3529412	0	42.3529412	1.57876316	1.89473684	0
21.8	24.8	63.0081301	0	12.195122	0.3936	0.19354839	0

22	19.42	64.8293963	0	15.7480315	0.29955547	0.24291498	0
23.5	30.73	27.9596977	0	41.3098237	1.09908198	1.47747748	0
25.1	10.68	18.1008902	0	71.2166172	0.59002623	3.93442623	0
29.1	24.35	51.3043478	0	24.3478261	0.47461864	0.47457627	0

Table S2. Carbon isotope data of bulk organic sediments for the Lodo Gulch section with published data from John et al., (2008) used in Figure 3.

John et al., 2008		This Study	
Composite Height(m)	$\delta^{13}\text{C}_{\text{org}}$	Composite Height(m)	$\delta^{13}\text{C}_{\text{org}}$
44.46	-24.81	6.1	-23.82
40.74	-26.41	6	-22.64
37.36	-24.18	5.9	-22.87
32.5	-25.11	5.8	-22.96
30.89	-25.75	5.7	-22.68
29.1	-25.58	5.6	-22.99
28	-25.13	5.5	-23.54
23.5	-25.32	5.4	-23.68
23.2	-25.32	5.3	-23.94
20.1	-26.65	5.2	-23.6
19.57	-25.19	5.1	-23.73
19.1	-25.33	5	-23.57
18.1	-26.1	4.9	-23.55
16.6	-26.08	4.8	-24.16
15.2	-26.63	4.7	-23.58
13.7	-27.07	4.6	-24.63
12.7	-27.13	3.8	-23.68
11.3	-26.57	3.3	-23.41
10.99	-25.57	3.2	-23.38
9.6	-26.07	3.1	-23.33
9	-25.79	3	-23.36
8.9	-26.48	2.9	-23.22
7.6	-25.98	2.8	-23.66
7.5	-25.99	2.7	-23.34
7.4	-26.41	2.6	-23.44
7.1	-26.1	1.8	-23.99
7.03	-26.95	0	-23.4
6.1	-23.26		

Table S3. Carbon and hydrogen isotope data, carbon preference indices (CPIs) and average chain length (ACL) data of leaf wax *n*-alkane for the Lodo Gulch section.

Composite Height(m)	$\delta^{13}\text{C}_{27}$	$\delta^{13}\text{C}_{29}$	$\delta^{13}\text{C}_{31}$	Composite Height(m)	$\delta^2\text{H}_{\text{C}27}$	$\delta^2\text{H}_{\text{C}29}$	$\delta^2\text{H}_{\text{C}31}$
51.78	-30.1	-30.4	-31.6	51.78	-173	-175	-169
42.47	-30.4	-30.5	-31.4	42.47	-182	-184	-176
38.74	-30.1	-30	-31.2	38.74	-173	-176	-169
33.15	-30.2	-30.2	-31.3	33.15	-173	-178	-173
27.94	-30	-30.2	-31.3	27.94	-179	-179	-177
25.83	-30.2	-29.8	-30.7	25.83	-178	-193	-196
22.01	-29.5	-29.3	-30.4	22.01	-189	-213	-209
21.98	-30.2	-32.2	-31.4	21.98	-164	-192	-232
19.78	-32	-32.3	-33.2	19.78	-171	-171	-170
18.46	-32.1	-32.4	-33.7	18.46	-150	-166	-168
16.4	-32.4	-32.8	-33.5	16.4	-166	-164	-164
16.22	-32.1	-32.6	-33.5	16.22	-166	-165	-167
14.57	-32.8	-33	-34.2	14.57	-188	-183	-198
13.6	-32.5	-33	-34	13.6			
11.21	-32.4	-32.7	-33.8	11.21	-170	-168	-167
10.92	-32.3	-32.4	-33.5	10.92	-165	-168	-167
10.02	-32.6	-32.9	-34.1	10.02	-162	-167	-165
9.42	-32	-32.5	-33.3	9.42	-160	-169	-168
8.83	-32.4	-32.7	-34	8.83	-169	-168	-171
8.53	-32.3	-32.8	-34	8.53	-170	-166	-167
8.35	-29.1	-28.8	-29.4	8.35			
7.85	-32.1	-32.4	-33.8	7.85	-168	-168	-170
7.62	-32.5	-33	-34	7.62			
7.35	-35	-33.4	-35.9	7.35			
7.17	-32.6	-32.9	-34	7.17	-162	-167	-166
6.94	-32.8	-33.2	-34.2	6.94	-166	-167	-167
6.67	-33.2	-33.2	-34.9	6.67	-170	-170	-171
6.54		-29.3		6.54			
6.26	-29.9	-29.5	-34.5	6.26	-173	-202	-166
5.95	-29.2	-28.9	-29.9	5.95	-170	-179	-175
5.69	-30.1	-30	-30.7	5.69	-169	-175	-173
4.24	-29	-29	-29.9	4.24	-171	-175	-173
3.01	-29.4	-29.5	-30.3	3.01	-153	-154	-150
2.24	-29.1	-29.3	-30	2.24		-157	-144

1.99	-28.6	-28.6	-29.4	1.99			
Composite Height(m)	CPI	ACL					
51.78	3.13	30.03					
42.47	2.5	29.75					
38.74	2.38	29.84					
33.15	2.97	30.02					
27.94	2.7	29.81					
25.83	3.11	30.13					
22.01	2.77	30.01					
21.98	2.47	30.11					
19.78	2.31	29.82					
18.46	2.12	29.74					
16.4	2.15	29.81					
16.22	2.15	29.62					
14.57	2.69	29.48					
13.6	2.24	29.63					
11.21	2.16	29.58					
10.92	2.12	29.73					
10.02	1.94	29.52					
9.42	1.9	29.58					
8.83	2.39	29.86					
8.53	2.31	29.80					
8.35	2.33	29.86					
7.85	2.23	29.67					
7.62	2.06	29.56					
7.35	1.89	29.59					
7.17	2.15	29.70					
6.94	2.04	29.44					
6.67	2.66	29.76					
6.26	1.65	29.50					
5.95	2.71	29.94					
5.69	2.17	29.71					
4.24	2.14	29.65					
3.01	1.46	29.55					
2.24	1.6	29.86					
1.99	1.8	29.36					

Table S4. Grain size data of different depth intervals for the Lodo Gulch section.

Composite height(m)	Particle size(µm)	Volume	Composite depth	Particle size(um)	Volume	Composite height(m)	Particle size(µm)	Volume
1.8	0.37519 8	0.038 8791	3.8	0.37519 8	0.052 6416	5.3	0.37519 8	0.023 2027
1.8	0.41187 8	0.069 2615	3.8	0.41187 8	0.093 7371	5.3	0.41187 8	0.041 4056
1.8	0.45214 5	0.101 8519	3.8	0.45214 5	0.137 4835	5.3	0.45214 5	0.061 0345
1.8	0.49634 7	0.144 389	3.8	0.49634 7	0.194 1835	5.3	0.49634 7	0.086 6915
1.8	0.54487 2	0.178 4025	3.8	0.54487 2	0.238 731	5.3	0.54487 2	0.107 334
1.8		0.207			0.275			0.125
1.8	0.59814	2315	3.8	0.59814	5165	5.3	0.59814	182
1.8	0.65661 5	0.232 371	3.8	0.65661 5	0.306 498	5.3	0.65661 5	0.141 147
1.8	0.72080 7	0.255 805	3.8	0.72080 7	0.334 3155	5.3	0.72080 7	0.156 386
1.8	0.79127 5	0.273 727	3.8	0.79127 5	0.353 9905	5.3	0.79127 5	0.168 484
1.8	0.86863 2	0.286 0565	3.8	0.86863 2	0.365 3515	5.3	0.86863 2	0.177 67
1.8	0.95355 2	0.294 2345	3.8	0.95355 2	0.370 4575	5.3	0.95355 2	0.184 886
1.8		0.299			0.371			0.191
1.8	1.04677	896	3.8	1.04677	698	5.3	1.04677	078
1.8		0.304			0.371			0.197
1.8	1.14911	6495	3.8	1.14911	6075	5.3	1.14911	039
1.8		0.308			0.369			0.202
1.8	1.26145	1665	3.8	1.26145	9555	5.3	1.26145	657
1.8		0.312			0.369			0.209
1.8	1.38477	5405	3.8	1.38477	693	5.3	1.38477	297
1.8		0.319			0.372			0.217
1.8	1.52015	3375	3.8	1.52015	944	5.3	1.52015	929
1.8		0.331			0.383			0.230
1.8	1.66876	607	3.8	1.66876	679	5.3	1.66876	373
1.8		0.349			0.402			0.246
1.8	1.8319	4975	3.8	1.8319	0535	5.3	1.8319	654
1.8		0.374			0.429			0.267
1.8	2.011	279	3.8	2.011	502	5.3	2.011	705

1.8	2.2076	0.406 806	3.8	2.2076	0.466 651	5.3	2.2076	0.294 231
1.8	2.42342	0.448 7435	3.8	2.42342	0.514 8505	5.3	2.42342	0.327 443
1.8	2.66033	0.500 4145	3.8	2.66033	0.573 751	5.3	2.66033	0.367 476
1.8	2.92042	0.561 7415	3.8	2.92042	0.642 5045	5.3	2.92042	0.414 393
1.8	3.20592	0.632 606	3.8	3.20592	0.720 1125	5.3	3.20592	0.468 403
1.8	3.51934	0.712 3605	3.8	3.51934	0.804 7075	5.3	3.51934	0.529 483
1.8	3.8634	0.800 4755	3.8	3.8634	0.894 493	5.3	3.8634	0.597 468
1.8	4.2411	0.895 5	3.8	4.2411	0.986 803	5.3	4.2411	0.671 553
1.8	4.65572	0.996 4495	3.8	4.65572	1.080 03	5.3	4.65572	0.751 421
1.8	5.11087	1.101 8255	3.8	5.11087	1.172 31	5.3	5.11087	0.836 625
1.8	5.61052	1.210 675	3.8	5.61052	1.262 475	5.3	5.61052	0.926 996
1.8	6.15902	1.321 61	3.8	6.15902	1.348 675	5.3	6.15902	1.021 86
1.8	6.76114	1.433 3	3.8	6.76114	1.429 68	5.3	6.76114	1.120 56
1.8	7.42212	1.544 845	3.8	7.42212	1.505 47	5.3	7.42212	1.223 18
1.8	8.14773	1.654 94	3.8	8.14773	1.575 95	5.3	8.14773	1.330 08
1.8	8.94427	1.761 8	3.8	8.94427	1.640 025	5.3	8.94427	1.441 62
1.8	9.81869	1.861 46	3.8	9.81869	1.693 965	5.3	9.81869	1.556 37
1.8	10.7786	1.950 975	3.8	10.7786	1.736 79	5.3	10.7786	1.672 92
1.8	11.8323	2.028 68	3.8	11.8323	1.772 33	5.3	11.8323	1.789 93
1.8	12.9891	2.096 855	3.8	12.9891	1.811 145	5.3	12.9891	1.907 65
1.8	14.2589	2.158 55	3.8	14.2589	1.862 215	5.3	14.2589	2.024 68

1.8	15.6529	2.21501	3.8	15.6529	1.926015		5.3	15.6529	2.13666
1.8	17.1832	2.263865	3.8	17.1832	1.992495		5.3	17.1832	2.2371
1.8	18.863	2.298995	3.8	18.863	2.046875		5.3	18.863	2.3217
1.8	20.7071	2.31622	3.8	20.7071	2.083685		5.3	20.7071	2.3945
1.8	22.7315	2.314755	3.8	22.7315	2.11075		5.3	22.7315	2.46686
1.8	24.9538	2.29954	3.8	24.9538	2.14645		5.3	24.9538	2.55329
1.8	27.3934	2.27813	3.8	27.3934	2.205855		5.3	27.3934	2.66184
1.8	30.0714	2.257635	3.8	30.0714	2.290005		5.3	30.0714	2.78855
1.8	33.0113	2.24514	3.8	33.0113	2.386545		5.3	33.0113	2.91872
1.8	36.2385	2.249405	3.8	36.2385	2.478265		5.3	36.2385	3.03211
1.8	39.7813	2.283275	3.8	39.7813	2.55672		5.3	39.7813	3.11368
1.8	43.6704	2.36333	3.8	43.6704	2.629825		5.3	43.6704	3.15855
1.8	47.9397	2.50353	3.8	47.9397	2.71627		5.3	47.9397	3.17207
1.8	52.6264	2.70691	3.8	52.6264	2.832275		5.3	52.6264	3.16645
1.8	57.7713	2.96038	3.8	57.7713	2.981635		5.3	57.7713	3.15429
1.8	63.4192	3.23061	3.8	63.4192	3.148005		5.3	63.4192	3.1429
1.8	69.6192	3.47466	3.8	69.6192	3.304615		5.3	69.6192	3.13472
1.8	76.4253	3.66352	3.8	76.4253	3.437895		5.3	76.4253	3.12421
1.8	83.8969	3.782145	3.8	83.8969	3.544755		5.3	83.8969	3.10416
1.8	92.0988	3.834195	3.8	92.0988	3.634985		5.3	92.0988	3.08832
1.8	101.103	3.80356	3.8	101.103	3.687695		5.3	101.103	3.08682

		3.616		3.610				3.109
1.8	110.987	41	3.8	110.987	69	5.3	110.987	84
		3.197		3.295				3.115
1.8	121.837	545	3.8	121.837	475	5.3	121.837	76
		2.508		2.668				2.995
1.8	133.748	195	3.8	133.748	545	5.3	133.748	67
		1.592		1.785				2.652
1.8	146.824	365	3.8	146.824	215	5.3	146.824	66
		0.738		0.885				2.044
1.8	161.177	8925	3.8	161.177	203	5.3	161.177	68
		0.207		0.278				1.210
1.8	176.935	6	3.8	176.935	3455	5.3	176.935	95
		0.029		0.043				0.494
1.8	194.232	9191	3.8	194.232	7586	5.3	194.232	602
		0.001		0.002				0.099
1.8	213.221	4994	3.8	213.221	2085	5.3	213.221	4463
		5		9				
								0.008
								4070
1.8	234.066	0	3.8	234.066	0	5.3	234.066	5
1.8	256.948	0	3.8	256.948	0	5.3	256.948	0
		0.37519	0.024	0.37519	0.024			0.026
5.4	8	3333	5.5	8	931	5.6	8	6626
		0.41187	0.043	0.41187	0.044			0.047
5.4	8	4189	5.5	8	4959	5.6	8	546
		0.45214	0.063	0.45214	0.065			0.070
5.4	5	9942	5.5	5	5773	5.6	5	0698
		0.49634	0.090	0.49634	0.093			0.099
5.4	7	8739	5.5	7	1007	5.6	7	5787
		0.54487	0.112	0.54487	0.115			0.123
5.4	2	439	5.5	2	133	5.6	2	451
		0.131		0.134				0.144
5.4	0.59814	014	5.5	0.59814	076	5.6	0.59814	175
		0.65661	0.147	0.65661	0.150			0.162
5.4	5	547	5.5	5	876	5.6	5	837
		0.72080	0.163	0.72080	0.166			0.180
5.4	7	263	5.5	7	782	5.6	7	832
		0.79127	0.175	0.79127	0.179			0.195
5.4	5	593	5.5	5	129	5.6	5	475
		0.86863	0.184	0.86863	0.188			0.206
5.4	2	753	5.5	2	15	5.6	2	983
		0.95355	0.191	0.95355	0.194			0.216
5.4	2	723	5.5	2	801	5.6	2	463

5.4	1.04677	0.197 535	5.5	1.04677	0.200 12	5.6	1.04677	0.225 088
5.4	1.14911	0.203 042	5.5	1.14911	0.204 94	5.6	1.14911	0.233 805
5.4	1.26145	0.208 131	5.5	1.26145	0.209 15	5.6	1.26145	0.242 43
5.4	1.38477	0.214 262	5.5	1.38477	0.214 201	5.6	1.38477	0.252 431
5.4	1.52015	0.222 532	5.5	1.52015	0.221 169	5.6	1.52015	0.264 892
5.4	1.66876	0.234 959	5.5	1.66876	0.232 066	5.6	1.66876	0.281 857
5.4	1.8319	0.251 657	5.5	1.8319	0.246 967	5.6	1.8319	0.303 261
5.4	2.011	0.273 67	5.5	2.011	0.266 898	5.6	2.011	0.329 954
5.4	2.2076	0.301 836	5.5	2.2076	0.292 613	5.6	2.2076	0.362 511
5.4	2.42342	0.337 605	5.5	2.42342	0.325 511	5.6	2.42342	0.402 107
5.4	2.66033	0.381 296	5.5	2.66033	0.365 849	5.6	2.66033	0.448 687
5.4	2.92042	0.433 092	5.5	2.92042	0.413 799	5.6	2.92042	0.501 975
5.4	3.20592	0.493 217	5.5	3.20592	0.469 533	5.6	3.20592	0.561 752
5.4	3.51934	0.561 696	5.5	3.51934	0.533 007	5.6	3.51934	0.627 631
5.4	3.8634	0.638 408	5.5	3.8634	0.604 028	5.6	3.8634	0.699 148
5.4	4.2411	0.722 51	5.5	4.2411	0.681 817	5.6	4.2411	0.775 135
5.4	4.65572	0.813 452	5.5	4.65572	0.765 905	5.6	4.65572	0.854 821
5.4	5.11087	0.910 405	5.5	5.11087	0.855 49	5.6	5.11087	0.937 37
5.4	5.61052	1.012 85	5.5	5.61052	0.950 001	5.6	5.61052	1.022 5
5.4	6.15902	1.119 83	5.5	6.15902	1.048 51	5.6	6.15902	1.109 58
5.4	6.76114	1.230 32	5.5	6.76114	1.150 2	5.6	6.76114	1.197 99

5.4	7.42212	1.343 74	5.5	7.42212	1.254 69	5.6	7.42212	1.287 64
5.4	8.14773	1.459 65	5.5	8.14773	1.361 57	5.6	8.14773	1.378 81
5.4	8.94427	1.577 58	5.5	8.94427	1.470 26	5.6	8.94427	1.472 13
5.4	9.81869	1.695 54	5.5	9.81869	1.578 99	5.6	9.81869	1.566 95
5.4	10.7786	1.811 77	5.5	10.7786	1.686 69	5.6	10.7786	1.663 13
5.4	11.8323	1.924 85	5.5	11.8323	1.792 89	5.6	11.8323	1.761 12
5.4	12.9891	2.035 68	5.5	12.9891	1.899 07	5.6	12.9891	1.863 99
5.4	14.2589	2.145 26	5.5	14.2589	2.006 81	5.6	14.2589	1.974 39
5.4	15.6529	2.253 74	5.5	15.6529	2.117 53	5.6	15.6529	2.092 39
5.4	17.1832	2.359 95	5.5	17.1832	2.232 87	5.6	17.1832	2.214 38
5.4	18.863	2.462 63	5.5	18.863	2.355 15	5.6	18.863	2.335 06
5.4	20.7071	2.563 77	5.5	20.7071	2.488 42	5.6	20.7071	2.452 96
5.4	22.7315	2.666 77	5.5	22.7315	2.634 81	5.6	22.7315	2.570 73
5.4	24.9538	2.775 06	5.5	24.9538	2.792 65	5.6	24.9538	2.694 21
5.4	27.3934	2.886 24	5.5	27.3934	2.953 4	5.6	27.3934	2.825 11
5.4	30.0714	2.990 68	5.5	30.0714	3.103 58	5.6	30.0714	2.956 59
5.4	33.0113	3.074 35	5.5	33.0113	3.230 07	5.6	33.0113	3.073 8
5.4	36.2385	3.124 41	5.5	36.2385	3.324 85	5.6	36.2385	3.158 2
5.4	39.7813	3.137 6	5.5	39.7813	3.389 17	5.6	39.7813	3.197 17
5.4	43.6704	3.120 84	5.5	43.6704	3.429 71	5.6	43.6704	3.188 86
5.4	47.9397	3.088 96	5.5	47.9397	3.453 36	5.6	47.9397	3.141 3

5.4	52.6264	3.057 12	5.5	52.6264	3.461 84	5.6	52.6264	3.067 65
5.4	57.7713	3.032 78	5.5	57.7713	3.448 87	5.6	57.7713	2.979 2
5.4	63.4192	3.015 45	5.5	63.4192	3.404 01	5.6	63.4192	2.881 26
5.4	69.6192	2.997 04	5.5	69.6192	3.318 24	5.6	69.6192	2.775 12
5.4	76.4253	2.969 93	5.5	76.4253	3.189 83	5.6	76.4253	2.660 69
5.4	83.8969	2.945 42	5.5	83.8969	3.035 6	5.6	83.8969	2.543 11
5.4	92.0988	2.942 18	5.5	92.0988	2.888 11	5.6	92.0988	2.453 13
5.4	101.103	2.975 41	5.5	101.103	2.776 33	5.6	101.103	2.431 19
5.4	110.987	3.017 86	5.5	110.987	2.702 77	5.6	110.987	2.511 82
5.4	121.837	2.973 22	5.5	121.837	2.610 86	5.6	121.837	2.676 89
5.4	133.748	2.727 46	5.5	133.748	2.405 8	5.6	133.748	2.816 59
5.4	146.824	2.214 26	5.5	146.824	2.013 26	5.6	146.824	2.769 52
5.4	161.177	1.494 67	5.5	161.177	1.442 37	5.6	161.177	2.403 46
5.4	176.935	0.754 231	5.5	176.935	0.787 517	5.6	176.935	1.732 41
5.4	194.232	0.248 868	5.5	194.232	0.291 372	5.6	194.232	0.930 105
5.4	213.221	0.041 2991	5.5	213.221	0.053 874	5.6	213.221	0.328 332
5.4	234.066	0.002 4490	5.5	234.066	0.003 9553	5.6	234.066	0.057 8222
5.4	256.948	0	5.5	256.948	0	5.6	256.948	0.003 7807
5.4	282.068	0	5.5	282.068	0	5.6	282.068	0
5.7	0.37519 8	0.025 3939	5.8	0.37519 8	0.021 897	5.9	0.37519 8	0.029 2061
5.7	0.41187 8	0.045 2862	5.8	0.41187 8	0.039 0672	5.9	0.41187 8	0.052 0917

	0.45214	0.066		0.45214	0.057		0.45214	0.076
5.7	5	6887	5.8	5	582	5.9	5	735
	0.49634	0.094		0.49634	0.081		0.49634	0.108
5.7	7	6412	5.8	7	7232	5.9	7	978
	0.54487	0.117		0.54487	0.101		0.54487	0.135
5.7	2	052	5.8	2	048	5.9	2	01
	0.136			0.117			0.157	
5.7	0.59814	282	5.8	0.59814	699	5.9	0.59814	562
	0.65661	0.153		0.65661	0.132		0.65661	0.177
5.7	5	332	5.8	5	614	5.9	5	807
	0.72080	0.169		0.72080	0.146		0.72080	0.197
5.7	7	514	5.8	7	88	5.9	7	253
	0.79127	0.182		0.79127	0.158		0.79127	0.213
5.7	5	246	5.8	5	195	5.9	5	011
	0.86863	0.191		0.86863	0.166		0.86863	0.225
5.7	2	711	5.8	2	843	5.9	2	375
	0.95355	0.198		0.95355	0.173		0.95355	0.235
5.7	2	95	5.8	2	898	5.9	2	581
	0.205			0.180			0.244	
5.7	1.04677	117	5.8	1.04677	375	5.9	1.04677	928
	0.211			0.187			0.254	
5.7	1.14911	229	5.8	1.14911	021	5.9	1.14911	534
	0.217			0.193			0.264	
5.7	1.26145	191	5.8	1.26145	726	5.9	1.26145	318
	0.224			0.201			0.275	
5.7	1.38477	492	5.8	1.38477	901	5.9	1.38477	976
	0.234			0.212			0.290	
5.7	1.52015	271	5.8	1.52015	599	5.9	1.52015	731
	0.248			0.227			0.310	
5.7	1.66876	69	5.8	1.66876	54	5.9	1.66876	87
	0.267			0.246			0.336	
5.7	1.8319	914	5.8	1.8319	588	5.9	1.8319	454
	0.292			0.270			0.368	
5.7	2.011	971	5.8	2.011	493	5.9	2.011	581
	0.324			0.299			0.407	
5.7	2.2076	587	5.8	2.2076	914	5.9	2.2076	99
	0.364			0.335			0.455	
5.7	2.42342	146	5.8	2.42342	949	5.9	2.42342	989
	0.411			0.378			0.512	
5.7	2.66033	95	5.8	2.66033	418	5.9	2.66033	556
	0.468			0.426			0.577	
5.7	2.92042	09	5.8	2.92042	861	5.9	2.92042	542

5.7	3.20592	0.532 595	5.8	3.20592	0.481 119	5.9	3.20592	0.650 889
5.7	3.51934	0.605 185	5.8	3.51934	0.541 052	5.9	3.51934	0.732 236
5.7	3.8634	0.685 573	5.8	3.8634	0.606 363	5.9	3.8634	0.820 983
5.7	4.2411	0.772 826	5.8	4.2411	0.675 799	5.9	4.2411	0.915 81
5.7	4.65572	0.866 29	5.8	4.65572	0.748 539	5.9	4.65572	1.016
5.7	5.11087	0.964 873	5.8	5.11087	0.824 122	5.9	5.11087	1.120 79
5.7	5.61052	1.067 83	5.8	5.61052	0.902 903	5.9	5.61052	1.229 78
5.7	6.15902	1.174 14	5.8	6.15902	0.984 673	5.9	6.15902	1.341 92
5.7	6.76114	1.282 9	5.8	6.76114	1.068 78	5.9	6.76114	1.456 25
5.7	7.42212	1.393 52	5.8	7.42212	1.155 35	5.9	7.42212	1.572 68
5.7	8.14773	1.505 15	5.8	8.14773	1.245 72	5.9	8.14773	1.691 52
5.7	8.94427	1.616 81	5.8	8.94427	1.342 42	5.9	8.94427	1.812 65
5.7	9.81869	1.726 32	5.8	9.81869	1.446 18	5.9	9.81869	1.933 82
5.7	10.7786	1.832 16	5.8	10.7786	1.556 98	5.9	10.7786	2.052 82
5.7	11.8323	1.933 15	5.8	11.8323	1.674 41	5.9	11.8323	2.168 66
5.7	12.9891	2.030 14	5.8	12.9891	1.800 84	5.9	12.9891	2.282 94
5.7	14.2589	2.124 13	5.8	14.2589	1.937 41	5.9	14.2589	2.395 67
5.7	15.6529	2.215 9	5.8	15.6529	2.079 39	5.9	15.6529	2.502 29
5.7	17.1832	2.305 58	5.8	17.1832	2.213 27	5.9	17.1832	2.594 26
5.7	18.863	2.392 79	5.8	18.863	2.321 63	5.9	18.863	2.664 63
5.7	20.7071	2.478 88	5.8	20.7071	2.396 81	5.9	20.7071	2.716 3

5.7	22.7315	2.565 15	5.8	22.7315	2.447 89	5.9	22.7315	2.761 73
5.7	24.9538	2.653 2	5.8	24.9538	2.499 95	5.9	24.9538	2.817 35
5.7	27.3934	2.742 18	5.8	27.3934	2.578 17	5.9	27.3934	2.891 61
5.7	30.0714	2.828 41	5.8	30.0714	2.691 7	5.9	30.0714	2.978 36
5.7	33.0113	2.906 53	5.8	33.0113	2.827 2	5.9	33.0113	3.059 18
5.7	36.2385	2.970 3	5.8	36.2385	2.952 87	5.9	36.2385	3.112 84
5.7	39.7813	3.015 69	5.8	39.7813	3.037 65	5.9	39.7813	3.127 55
5.7	43.6704	3.040 19	5.8	43.6704	3.068	5.9	43.6704	3.105 8
5.7	47.9397	3.043 4	5.8	47.9397	3.054 36	5.9	47.9397	3.061 01
5.7	52.6264	3.027 71	5.8	52.6264	3.024 66	5.9	52.6264	3.007 01
5.7	57.7713	2.997 99	5.8	57.7713	3.006 94	5.9	57.7713	2.950 35
5.7	63.4192	2.961 29	5.8	63.4192	3.014 88	5.9	63.4192	2.888 4
5.7	69.6192	2.925 74	5.8	69.6192	3.046 44	5.9	69.6192	2.813 95
5.7	76.4253	2.896 02	5.8	76.4253	3.085 42	5.9	76.4253	2.730 24
5.7	83.8969	2.877 73	5.8	83.8969	3.116 64	5.9	83.8969	2.651 85
5.7	92.0988	2.883 82	5.8	92.0988	3.156	5.9	92.0988	2.596 52
5.7	101.103	2.917 42	5.8	101.103	3.220 69	5.9	101.103	2.563 78
5.7	110.987	2.965 34	5.8	110.987	3.326 5	5.9	110.987	2.501 65
5.7	121.837	2.962 44	5.8	121.837	3.422 29	5.9	121.837	2.324 72
5.7	133.748	2.801 61	5.8	133.748	3.371 54	5.9	133.748	1.959 67
5.7	146.824	2.404 99	5.8	146.824	3.045 79	5.9	146.824	1.409 58

5.7	161.177	1.777 39	5.8	161.177	2.385 45	5.9	161.177	0.769 017
5.7	176.935	1.005 69	5.8	176.935	1.460 97	5.9	176.935	0.281 066
5.7	194.232	0.390 129	5.8	194.232	0.630 722	5.9	194.232	0.051 2121
5.7	213.221	0.075 2133	5.8	213.221	0.148 29	5.9	213.221	0.003 6026 5
5.7	234.066	0.005 9577 7	5.8	234.066	0.016 2189	5.9	234.066	0
5.7	256.948	0	5.8	256.948	0.000 1765 6	5.9	256.948	0
5.7	282.068	0	5.8	282.068	0	5.9	282.068	0
6.1	0.37519 8	0.033 477	6.22	0.37519 8	0.030 9354	6.36	0.37519 8	0.025 6386
6.1	0.41187 8	0.059 7107	6.22	0.41187 8	0.055 2017	6.36	0.41187 8	0.045 7722
6.1	0.45214 5	0.087 9543	6.22	0.45214 5	0.081 3333	6.36	0.45214 5	0.067 5243
6.1	0.49634 7	0.124 913	6.22	0.49634 7	0.115 428	6.36	0.49634 7	0.095 9542 5
6.1	0.54487 2	0.154 785	6.22	0.54487 2	0.142 706	6.36	0.54487 2	0.118 7665
6.1	0.59814	0.180 692	6.22	0.59814	0.166 112	6.36	0.59814	0.138 4445
6.1	0.65661 5	0.203 984	6.22	0.65661 5	0.186 846	6.36	0.65661 5	0.155 956
6.1	0.72080 7	0.226 377	6.22	0.72080 7	0.206 446	6.36	0.72080 7	0.172 549
6.1	0.79127 5	0.244 589	6.22	0.79127 5	0.221 658	6.36	0.79127 5	0.185 3965
6.1	0.86863 2	0.258 969	6.22	0.86863 2	0.232 765	6.36	0.86863 2	0.194 703
6.1	0.95355 2	0.270 948	6.22	0.95355 2	0.241 053	6.36	0.95355 2	0.201 42
6.1	1.04677	0.282 005	6.22	1.04677	0.247 868	6.36	1.04677	0.206 5285
6.1	1.14911	0.293 404	6.22	1.14911	0.254 348	6.36	1.14911	0.210 8065

6.1	1.26145	0.305 062	6.22	1.26145	0.260 431	6.36	1.26145	0.214 1005
6.1	1.38477	0.318 949	6.22	1.38477	0.268 1	6.36	1.38477	0.217 976
6.1	1.52015	0.336 465	6.22	1.52015	0.278 879	6.36	1.52015	0.223 635
6.1	1.66876	0.360 165	6.22	1.66876	0.295 449	6.36	1.66876	0.233 2575
6.1	1.8319	0.390 08	6.22	1.8319	0.318 085	6.36	1.8319	0.247 0305
6.1	2.011	0.427 487	6.22	2.011	0.348 348	6.36	2.011	0.266 279
6.1	2.2076	0.473 255	6.22	2.2076	0.387 551	6.36	2.2076	0.292 1925
6.1	2.42342	0.528 843	6.22	2.42342	0.437 8	6.36	2.42342	0.326 7315
6.1	2.66033	0.594 099	6.22	2.66033	0.499 675	6.36	2.66033	0.370 634
6.1	2.92042	0.668 794	6.22	2.92042	0.573 622	6.36	2.92042	0.424 618
6.1	3.20592	0.752 86	6.22	3.20592	0.660 174	6.36	3.20592	0.489 517
6.1	3.51934	0.845 95	6.22	3.51934	0.759 673	6.36	3.51934	0.566 0955
6.1	3.8634	0.947 26	6.22	3.8634	0.872 053	6.36	3.8634	0.654 878
6.1	4.2411	1.055 09	6.22	4.2411	0.996 201	6.36	4.2411	0.755 595
6.1	4.65572	1.168 49	6.22	4.65572	1.131 3	6.36	4.65572	0.868 16
6.1	5.11087	1.286 72	6.22	5.11087	1.276 38	6.36	5.11087	0.992 2305
6.1	5.61052	1.409 46	6.22	5.61052	1.430 8	6.36	5.61052	1.127 74
6.1	6.15902	1.535 38	6.22	6.15902	1.593 05	6.36	6.15902	1.273 98
6.1	6.76114	1.663 2	6.22	6.76114	1.761 36	6.36	6.76114	1.430 015
6.1	7.42212	1.792 77	6.22	7.42212	1.934 57	6.36	7.42212	1.595 43
6.1	8.14773	1.925 01	6.22	8.14773	2.112 25	6.36	8.14773	1.770 465

6.1	8.94427	2.060 25	6.22	8.94427	2.293 63	6.36	8.94427	1.955 475
6.1	9.81869	2.196 12	6.22	9.81869	2.475 5	6.36	9.81869	2.148 99
6.1	10.7786	2.329 85	6.22	10.7786	2.653 41	6.36	10.7786	2.348
6.1	11.8323	2.460 85	6.22	11.8323	2.823 46	6.36	11.8323	2.548 57
6.1	12.9891	2.592 19	6.22	12.9891	2.984 7	6.36	12.9891	2.747 67
6.1	14.2589	2.724 72	6.22	14.2589	3.135 58	6.36	14.2589	2.941 565
6.1	15.6529	2.851 82	6.22	15.6529	3.269 77	6.36	15.6529	3.123 73
6.1	17.1832	2.959 68	6.22	17.1832	3.374 37	6.36	17.1832	3.283 825
6.1	18.863	3.036 29	6.22	18.863	3.434 83	6.36	18.863	3.410 805
6.1	20.7071	3.083 59	6.22	20.7071	3.445 54	6.36	20.7071	3.499 555
6.1	22.7315	3.118 65	6.22	22.7315	3.414 57	6.36	22.7315	3.554 01
6.1	24.9538	3.163 88	6.22	24.9538	3.361 55	6.36	24.9538	3.586 02
6.1	27.3934	3.228 97	6.22	27.3934	3.305 71	6.36	27.3934	3.607 54
6.1	30.0714	3.300 32	6.22	30.0714	3.254 83	6.36	30.0714	3.622 49
6.1	33.0113	3.345 52	6.22	33.0113	3.202 34	6.36	33.0113	3.624 295
6.1	36.2385	3.330 21	6.22	36.2385	3.131 25	6.36	36.2385	3.598 17
6.1	39.7813	3.239 95	6.22	39.7813	3.025 71	6.36	39.7813	3.529 22
6.1	43.6704	3.090 92	6.22	43.6704	2.88	6.36	43.6704	3.410 29
6.1	47.9397	2.920 5	6.22	47.9397	2.701 54	6.36	47.9397	3.245 51
6.1	52.6264	2.765 37	6.22	52.6264	2.509 4	6.36	52.6264	3.049 29
6.1	57.7713	2.642 37	6.22	57.7713	2.325 58	6.36	57.7713	2.840 755

6.1	63.4192	2.540 06	6.22	63.4192	2.168 81	6.36	63.4192	2.636 555
6.1	69.6192	2.430 04	6.22	69.6192	2.053 55	6.36	69.6192	2.447 9
6.1	76.4253	2.293 75	6.22	76.4253	1.983 25	6.36	76.4253	2.281 735
6.1	83.8969	2.130 57	6.22	83.8969	1.949 92	6.36	83.8969	2.136 035
6.1	92.0988	1.964 78	6.22	92.0988	1.926 49	6.36	92.0988	2.002 18
6.1	101.103	1.812 14	6.22	101.103	1.857 37	6.36	101.103	1.854 69
6.1	110.987	1.645 71	6.22	110.987	1.682 21	6.36	110.987	1.650 11
6.1	121.837	1.424 06	6.22	121.837	1.366 97	6.36	121.837	1.359 415
6.1	133.748	1.103 49	6.22	133.748	0.939 722	6.36	133.748	0.983 47
6.1	146.824	0.665 996	6.22	146.824	0.489 074	6.36	146.824	0.552 4795
6.1	161.177	0.278 316	6.22	161.177	0.169 47	6.36	161.177	0.214 748
6.1	176.935	0.056 9672	6.22	176.935	0.029 4958	6.36	176.935	0.041 5599
6.1	194.232	0.004 8942	6.22	194.232	0.001 9255	6.36	194.232	0.003 3201
6.1	213.221	0	6.22	213.221	0	6.36	213.221	0
6.64	0.37519	0.030 8 0248	6.9	0.37519	0.029 8 9696	7.08	0.37519	0.027 8 2696
6.64	0.41187	0.053 8 5954	6.9	0.41187	0.053 4415 8 5	7.08	0.41187	0.048 6374 8 5
6.64	0.45214	0.078 5 9917	6.9	0.45214	0.078 5 6967 5	7.08	0.45214	0.071 5 6137
6.64	0.49634	0.112 7 096	6.9	0.49634	0.111 7 706	7.08	0.49634	0.101 7 5921
6.64	0.54487	0.138 2 514	6.9	0.54487	0.138 2 2445	7.08	0.54487	0.125 2 584
6.64	0.59814	0.161 194	6.9	0.59814	0.161 0605	7.08	0.59814	0.146 151

6.64	0.65661 5	0.181 3165	6.9	0.65661 5	0.181 334	7.08	0.65661 5	0.164 3735
6.64	0.72080 7	0.200 375	6.9	0.72080 7	0.200 599	7.08	0.72080 7	0.181 6515
6.64	0.79127 5	0.215 131	6.9	0.79127 5	0.215 8575	7.08	0.79127 5	0.195 2065
6.64	0.86863 2	0.225 972	6.9	0.86863 2	0.227 2915	7.08	0.86863 2	0.205 2775
6.64	0.95355 2	0.234 2075	6.9	0.95355 2	0.236 113	7.08	0.95355 2	0.213 0145
6.64		0.241 1.04677	6.9		0.243 1.04677	7.08		0.219 66
6.64		0.248 1.14911	6.9	1.14911	0295	7.08	1.14911	0.226 2755
6.64		0.254 1.26145	6.9	1.26145	0.258 1705	7.08	1.26145	0.232 758
6.64		0.263 1.38477	6.9	1.38477	0.266 795	7.08	1.38477	0.240 7065
6.64		0.275 1.52015	6.9	1.52015	0.278 2035	7.08	1.52015	0.251 3125
6.64		0.293 1.66876	6.9	1.66876	0.294 8495	7.08	1.66876	0.266 787
6.64		0.317 1.8319	6.9	1.8319	0.316 891	7.08	1.8319	0.287 1775
6.64		0.349 2.011	6.9	2.011	0.345 523	7.08	2.011	0.313 466
6.64		0.390 2.2076	6.9	2.2076	0.381 607	7.08	2.2076	0.346 308
6.64		0.443 2.42342	6.9	2.42342	0.426 694	7.08	2.42342	0.386 99
6.64		0.507 2.66033	6.9	2.66033	0.481 0525	7.08	2.66033	0.435 563
6.64		0.584 2.92042	6.9	2.92042	0.544 7625	7.08	2.92042	0.491 8615
6.64		0.674 3.20592	6.9	3.20592	0.617 907	7.08	3.20592	0.555 7335
6.64		0.777 3.51934	6.9	3.51934	0.700 26	7.08	3.51934	0.626 7765
6.64		0.892 3.8634	6.9	3.8634	0.791 4885	7.08	3.8634	0.704 546
6.64		1.020 4.2411	6.9	4.2411	0.890 484	7.08	4.2411	0.787 9425

6.64	4.65572	1.159 359	6.9	4.65572	0.996 581	7.08	4.65572	0.876 2895
6.64	5.11087	1.308 11	6.9	5.11087	1.108 87	7.08	5.11087	0.968 7395
6.64	5.61052	1.466 295	6.9	5.61052	1.226 86	7.08	5.61052	1.064 95
6.64	6.15902	1.632 45	6.9	6.15902	1.349 575	7.08	6.15902	1.164 285
6.64	6.76114	1.804 795	6.9	6.76114	1.476 1	7.08	6.76114	1.266 25
6.64	7.42212	1.982 115	6.9	7.42212	1.606 14	7.08	7.42212	1.370 96
6.64	8.14773	2.163 99	6.9	8.14773	1.739 68	7.08	8.14773	1.478 77
6.64	8.94427	2.349 725	6.9	8.94427	1.876 475	7.08	8.94427	1.590 26
6.64	9.81869	2.536 085	6.9	9.81869	2.014 43	7.08	9.81869	1.704 75
6.64	10.7786	2.718 34	6.9	10.7786	2.151 22	7.08	10.7786	1.821 93
6.64	11.8323	2.891 87	6.9	11.8323	2.284 76	7.08	11.8323	1.941 58
6.64	12.9891	3.054 36	6.9	12.9891	2.414 765	7.08	12.9891	2.064 885
6.64	14.2589	3.202 565	6.9	14.2589	2.539 65	7.08	14.2589	2.191 62
6.64	15.6529	3.328 505	6.9	15.6529	2.654 58	7.08	15.6529	2.319 03
6.64	17.1832	3.418 26	6.9	17.1832	2.751 805	7.08	17.1832	2.442 195
6.64	18.863	3.457 56	6.9	18.863	2.824 775	7.08	18.863	2.556 82
6.64	20.7071	3.441 92	6.9	20.7071	2.875 06	7.08	20.7071	2.664 33
6.64	22.7315	3.381 08	6.9	22.7315	2.912 44	7.08	22.7315	2.770 63
6.64	24.9538	3.295 93	6.9	24.9538	2.951 255	7.08	24.9538	2.883 575
6.64	27.3934	3.205 96	6.9	27.3934	3.000 685	7.08	27.3934	3.005 395
6.64	30.0714	3.118 66	6.9	30.0714	3.058 34	7.08	30.0714	3.128 885

6.64	33.0113	3.027 495	6.9	33.0113	3.110 885	7.08	33.0113	3.239 02
6.64	36.2385	2.917 44	6.9	36.2385	3.139 97	7.08	36.2385	3.318 29
6.64	39.7813	2.778 5	6.9	39.7813	3.131 83	7.08	39.7813	3.354
6.64	43.6704	2.614 51	6.9	43.6704	3.082 655	7.08	43.6704	3.341 165
6.64	47.9397	2.444 5	6.9	47.9397	2.998 775	7.08	47.9397	3.282 515
6.64	52.6264	2.296 13	6.9	52.6264	2.891 57	7.08	52.6264	3.185 135
6.64	57.7713	2.191 765	6.9	57.7713	2.773 42	7.08	57.7713	3.060 36
6.64	63.4192	2.142 16	6.9	63.4192	2.654 88	7.08	63.4192	2.923 605
6.64	69.6192	2.145 075	6.9	69.6192	2.545 19	7.08	69.6192	2.794 18
6.64	76.4253	2.182 54	6.9	76.4253	2.461 02	7.08	76.4253	2.701 94
6.64	83.8969	2.225 445	6.9	83.8969	2.419 385	7.08	83.8969	2.675 905
6.64	92.0988	2.225 705	6.9	92.0988	2.430 365	7.08	92.0988	2.731 63
6.64	101.103	2.116 22	6.9	101.103	2.476 145	7.08	101.103	2.846 83
6.64	110.987	1.847 07	6.9	110.987	2.483 285	7.08	110.987	2.926 605
6.64	121.837	1.409 975	6.9	121.837	2.349 325	7.08	121.837	2.833 81
6.64	133.748	0.860 5055	6.9	133.748	1.993 03	7.08	133.748	2.455 275
6.64	146.824	0.378 5035	6.9	146.824	1.426 05	7.08	146.824	1.790 13
6.64	161.177	0.099 5265 5	6.9	161.177	0.767 986	7.08	161.177	0.981 4885
6.64	176.935	0.013 1777 9	6.9	176.935	0.274 339	7.08	176.935	0.357 9525
6.64	194.232	0.000 5250 5	6.9	194.232	0.048 8979 5	7.08	194.232	0.065 1913 5

					0.003			0.004
6.64	213.221	0	6.9	213.221	2894 3	7.08	213.221	5995 3
			6.9	234.066	0	7.08	234.066	0
7.13	0.37519 8	0.028 2141	7.23	0.37519 8	0.031 8282	7.37	0.37519 8	0.029 0608 5
7.13	0.41187 8	0.050 3091 5	7.23	0.41187 8	0.056 7413 5	7.37	0.41187 8	0.051 8361
7.13	0.45214 5	0.074 0722	7.23	0.45214 5	0.083 5014 5	7.37	0.45214 5	0.076 3628 5
7.13	0.49634 7	0.105 094	7.23	0.49634 7	0.118 42	7.37	0.49634 7	0.108 4055
7.13	0.54487 2	0.129 9315	7.23	0.54487 2	0.146 4105	7.37	0.54487 2	0.134 149
7.13		0.151			0.170			0.156
7.13	0.59814	207	7.23	0.59814	406	7.37	0.59814	3475
7.13	0.65661 5	0.170 043	7.23	0.65661 5	0.191 712	7.37	0.65661 5	0.176 1785
7.13	0.72080 7	0.187 9115	7.23	0.72080 7	0.211 983	7.37	0.72080 7	0.195 141
7.13	0.79127 5	0.201 937	7.23	0.79127 5	0.228 0945	7.37	0.79127 5	0.210 263
7.13	0.86863 2	0.212 321	7.23	0.86863 2	0.240 32	7.37	0.86863 2	0.221 842
7.13	0.95355 2	0.220 245	7.23	0.95355 2	0.250 098	7.37	0.95355 2	0.231 142
7.13		0.227			0.258			0.239
7.13	1.04677	0295	7.23	1.04677	9615	7.37	1.04677	501
7.13		0.233			0.268			0.247
7.13	1.14911	801	7.23	1.14911	2275	7.37	1.14911	9935
7.13	1.26145	0.240 4285	7.23	1.26145	0.277 799	7.37	1.26145	0.256 508
7.13	1.38477	0.248 554	7.23	1.38477	0.289 5715	7.37	1.38477	0.266 7725
7.13	1.52015	0.259 4565	7.23	1.52015	0.304 975	7.37	1.52015	0.280 0955
7.13	1.66876	0.275 5025	7.23	1.66876	0.326 5465	7.37	1.66876	0.298 8055
7.13	1.8319	0.296 7995	7.23	1.8319	0.354 2915	7.37	1.8319	0.322 911

7.13	2.011	0.324 3725	7.23	2.011	0.389 253	7.37	2.011	0.353 467
7.13	2.2076	0.358 934	7.23	2.2076	0.432 1135	7.37	2.2076	0.391 238
7.13	2.42342	0.401 924	7.23	2.42342	0.484 178	7.37	2.42342	0.437 645
7.13	2.66033	0.453 529	7.23	2.66033	0.545 208	7.37	2.66033	0.492 6495
7.13	2.92042	0.513 637	7.23	2.92042	0.614 6295	7.37	2.92042	0.555 9965
7.13	3.20592	0.582 039	7.23	3.20592	0.691 908	7.37	3.20592	0.627 4755
7.13	3.51934	0.658 2905	7.23	3.51934	0.776 2705	7.37	3.51934	0.706 7305
7.13	3.8634	0.741 969	7.23	3.8634	0.866 7785	7.37	3.8634	0.793 221
7.13	4.2411	0.831 93	7.23	4.2411	0.961 543	7.37	4.2411	0.885 5645
7.13	4.65572	0.927 267	7.23	4.65572	1.059 16	7.37	4.65572	0.982 799
7.13	5.11087	1.026 73	7.23	5.11087	1.158 29	7.37	5.11087	1.083 975
7.13	5.61052	1.129 655	7.23	5.61052	1.258 385	7.37	5.61052	1.188 8
7.13	6.15902	1.235 15	7.23	6.15902	1.358 315	7.37	6.15902	1.296 47
7.13	6.76114	1.342 445	7.23	6.76114	1.456 87	7.37	6.76114	1.406 14
7.13	7.42212	1.450 98	7.23	7.42212	1.553 44	7.37	7.42212	1.517 585
7.13	8.14773	1.560 15	7.23	8.14773	1.648 075	7.37	8.14773	1.631 285
7.13	8.94427	1.669 56	7.23	8.94427	1.741 095	7.37	8.94427	1.747 995
7.13	9.81869	1.777 835	7.23	9.81869	1.831 3	7.37	9.81869	1.866 96
7.13	10.7786	1.884 195	7.23	10.7786	1.918 11	7.37	10.7786	1.987 325
7.13	11.8323	1.988 11	7.23	11.8323	2.002 99	7.37	11.8323	2.108 82
7.13	12.9891	2.091 235	7.23	12.9891	2.092 21	7.37	12.9891	2.233 685

7.13	14.2589	2.195 63	7.23	14.2589	2.192 485	7.37	14.2589	2.363 3
7.13	15.6529	2.303 165	7.23	15.6529	2.305 895	7.37	15.6529	2.494 815
7.13	17.1832	2.414 685	7.23	17.1832	2.426 125	7.37	17.1832	2.619 895
7.13	18.863	2.529 99	7.23	18.863	2.540 785	7.37	18.863	2.728 665
7.13	20.7071	2.650 145	7.23	20.7071	2.640 915	7.37	20.7071	2.818 265
7.13	22.7315	2.775 84	7.23	22.7315	2.726 3	7.37	22.7315	2.895 66
7.13	24.9538	2.907 205	7.23	24.9538	2.806 76	7.37	24.9538	2.975 41
7.13	27.3934	3.039 975	7.23	27.3934	2.892 52	7.37	27.3934	3.069
7.13	30.0714	3.164 28	7.23	30.0714	2.984 875	7.37	30.0714	3.175 705
7.13	33.0113	3.266 48	7.23	33.0113	3.072 48	7.37	33.0113	3.280 7
7.13	36.2385	3.332 17	7.23	36.2385	3.135 135	7.37	36.2385	3.359 98
7.13	39.7813	3.351 215	7.23	39.7813	3.154 835	7.37	39.7813	3.391 505
7.13	43.6704	3.319 135	7.23	43.6704	3.123 485	7.37	43.6704	3.364 005
7.13	47.9397	3.238 215	7.23	47.9397	3.046 385	7.37	47.9397	3.280 34
7.13	52.6264	3.116 4	7.23	52.6264	2.937 205	7.37	52.6264	3.153 705
7.13	57.7713	2.967 32	7.23	57.7713	2.810 925	7.37	57.7713	3.002 855
7.13	63.4192	2.810 335	7.23	63.4192	2.681 37	7.37	63.4192	2.845 69
7.13	69.6192	2.667 16	7.23	69.6192	2.558 555	7.37	69.6192	2.697 135
7.13	76.4253	2.566 255	7.23	76.4253	2.459 26	7.37	76.4253	2.576 345
7.13	83.8969	2.535 235	7.23	83.8969	2.411 965	7.37	83.8969	2.497 69
7.13	92.0988	2.587 905	7.23	92.0988	2.440 705	7.37	92.0988	2.467 98

7.13	101.103	2.706 4	7.23	101.103	2.550 685	7.37	101.103	2.465 73
7.13	110.987	2.805 645	7.23	110.987	2.679 87	7.37	110.987	2.417 175
7.13	121.837	2.751 575	7.23	121.837	2.696 765	7.37	121.837	2.231 845
7.13	133.748	2.426 705	7.23	133.748	2.464 09	7.37	133.748	1.843 04
7.13	146.824	1.815 895	7.23	146.824	1.924 835	7.37	146.824	1.270 385
7.13	161.177	1.025 263	7.23	161.177	1.135 965	7.37	161.177	0.655 073
7.13	176.935	0.388 605	7.23	176.935	0.453 034	7.37	176.935	0.219 6405
7.13	194.232	0.072 9732	7.23	194.232	0.088 7384 5	7.37	194.232	0.037 0559 5
7.13	213.221	0.005 4034	7.23	213.221	0.007 0411 6	7.37	213.221	0.002 2552
7.13	234.066	0	7.23	234.066	0	7.37	234.066	0

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