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Supplement of

Dependence of the cyclization of branched tetraethers (CBT) on soil moisture in the Chinese Loess Plateau and the adjacent areas: implications for palaeorainfall reconstructions

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Supplementary Table 1. Sampling information, soil parameters, meteorological data and CBT values for samples in this study.

ID	site	latitude	longitude	altitude	Soil pH	SWC (%)	MAP(mm)	MAGST (°C)	RH (%)	MAAT (°C)	MAE(mm)	bGGDTs (ng/g)	CBT	CBT-pH	Depth(cm)
WLPS-1	Jingchuan	35°21'21.894"	107°41'16.163"	1063	7.8	16.3	575	12.5	69	10.2	1356	10.1	0.54	7.3	0-5
WLPS-2	Jingchuan	35°21'16.357"	107°41'11.778"	1064	7.9	13.8	575	12.5	69	10.2	1356	5.6	0.45	7.6	0-5
WLPS-3	Jingchuan	35°21'16.573"	107°41'11.622"	1062	8.0	15.7	575	12.5	69	10.2	1356	5.6	0.34	7.9	0-5
WLPS-4	Longde	35°35'57.574"	106°01'2.898"	1989	7.9	6.9	492	8.8	65	6.2	1269	6.7	0.77	6.7	0-5
WLPS-5	Longde	35°35'58.297"	106°00'59.728"	2021	7.9	10.9	492	8.8	65	6.0	1269	3.3	0.72	6.9	0-5
WLPS-6	Longde	35°35'57.380"	106°00'59.603"	2017	8.0	6.4	492	8.8	65	6.0	1269	5.3	0.68	7.0	0-5
WLPS-7	Gancaodian	35°47'9.466"	104°18'13.231"	1929	8.0	15.9	372	10.0	63	6.6	1377	4.3	0.71	6.9	0-5
WLPS-8	Gancaodian	35°47'11.043"	104°18'12.397"	1922	7.9	17.1	372	10.0	63	6.7	1377	9.6	0.81	6.6	0-5
WLPS-9	Gancaodian	35°47'12.696"	104°18'11.940"	1921	8.3	16.2	372	10.0	63	6.7	1377	2.4	0.83	6.6	0-5
WLPS-10	Yongdeng	36°29'26.033"	103°23'58.472"	1884	8.6	13.3	284	10.0	58	6.6	1745	10.2	1.33	5.3	0-5
WLPS-11	Yongdeng	36°29'27.352"	103°23'56.563"	1882	8.5	12.7	284	10.0	58	6.7	1745	13.8	1.11	5.8	0-5
WLPS-12	Yongdeng	36°29'26.116"	103°23'57.509"	1879	8.4	12.0	284	10.1	58	6.7	1745	6.2	1.19	5.6	0-5
WLPS-13	Guliang	37°30'0.853"	102°52'34.941"	2162	8.3	2.8	352	8.1	51	5.2	1872	2.4	1.08	5.9	0-5
WLPS-14	Guliang	37°30'0.263"	102°52'31.514"	2161	8.1	6.1	352	8.1	51	5.2	1872	2.7	1.08	5.9	0-5
WLPS-15	Guliang	37°29'56.483"	102°52'42.411"	2068	8.3	2.7	352	8.7	51	5.8	1872	1.9	0.93	6.3	0-5
WLPS-16	Yongchang	38°15'8.88"	101°59'16.747"	1966	7.6	6.5	212	8.5	52	5.5	2017	3.7	1.08	5.9	0-5
WLPS-17	Yongchang	38°15'8.463"	101°59'16.212"	1972	7.9	n.m.	212	8.4	52	5.4	2017	6.1	1.01	6.1	0-5
WLPS-18	Yongchang	38°15'16.131"	101°59'6.22"	1965	8.0	3.9	212	8.5	52	5.5	2017	8.7	1.31	5.3	0-5
WLPS-19	Jingtai	37°20'44.919"	104°07'20.141"	1583	8.9	0.4	180	12.1	48	9.3	2251	2.2	0.98	6.2	0-5
WLPS-20	Jingtai	37°20'44.889"	104°07'18.772"	1595	8.9	0.6	180	12.0	48	9.3	2251	1.8	0.84	6.5	0-5
WLPS-21	Jingtai	37°20'46.190"	104°07'19.885"	1596	8.6	0.4	180	12.0	48	9.3	2251	1.4	1.03	6.0	0-5
WLPS-22	Shapotou	37°26'7.060"	104°54'50.546"	1393	8.6	0.5	177	10.8	55	8.2	1824	0.5	0.79	6.7	0-5
WLPS-23	Shapotou	37°26'8.277"	104°54'49.177"	1411	8.7	0.8	177	10.7	55	8.1	1824	1.1	1.08	5.9	0-5
WLPS-24	Shapotou	37°26'8.444"	104°54'48.890"	1410	8.7	0.4	177	10.7	55	8.1	1824	0.3	0.84	6.6	0-5
WLPS-25	Zhongwei	37°32'18.667"	105°52'44.947"	1209	8.5	1.3	192	12.5	52	9.8	1898	1.7	0.98	6.2	0-5
WLPS-26	Zhongwei	37°32'18.913"	105°52'46.029"	1208	8.5	3.3	192	12.5	52	9.8	1898	4.7	0.75	6.8	0-5
WLPS-27	Zhongwei	37°32'17.008"	105°52'47.017"	1213	8.8	1.1	192	12.5	52	9.7	1898	1.6	1.13	6.8	0-5
WLPS-28	Helan	38°54'50.744"	106°12'51.731"	1180	8.7	0.9	167	12.6	48	9.7	2146	6.3	1.04	6.0	0-5
WLPS-29	Helan	38°54'50.576"	106°12'50.800"	1187	8.5	1.4	167	12.6	48	9.7	2146	8.8	1.13	5.8	0-5
WLPS-30	Helan	38°54'50.576"	106°12'50.800"	1187	8.1	1.6	167	12.6	48	9.7	2146	8.9	1.31	5.3	0-5
WLPS-31	Helan	38°54'50.576"	106°12'50.800"	1187	8.6	1.4	167	12.6	48	9.7	2146	5.8	1.08	5.9	0-5
WLPS-32	Helan	38°54'49.356"	106°12'51.789"	1184	8.4	1.0	167	12.6	48	9.7	2146	6.4	1.00	6.1	0-5
WLPS-33	Shizuishan	39°06'53.578"	106°33'49.224"	1107	8.2	1.0	178	12.3	54	9.4	1708	3.5	1.27	5.4	0-5
WLPS-34	Shizuishan	39°06'33.116"	106°33'48.900"	1117	8.6	0.8	178	12.2	54	9.3	1708	2.4	1.16	5.7	0-5
WLPS-35	Shizuishan	39°06'54.033"	106°33'49.715"	1116	8.4	1.0	178	12.2	54	9.3	1708	3.2	1.17	5.7	0-5
WLPS-36	Wuhai	39°32'35.258"	106°46'13.388"	1088	8.3	0.5	153	12.6	43	9.9	2978	0.5	0.80	6.7	0-5
WLPS-37	Wuhai	39°32'34.856"	106°46'13.060"	1077	8.5	0.5	153	12.7	43	10.0	2978	0.4	0.67	7.0	0-5
WLPS-38	DengkouA	40°09'14.298"	106°54'4.591"	1072	8.7	0.5	143	11.2	47	8.7	2495	0.2	0.63	7.1	0-5
WLPS-39	DengkouA	40°09'14.304"	106°54'4.590"	1073	8.5	0.6	143	11.2	47	8.7	2495	0.2	0.73	6.8	0-5
WLPS-40	DengkouA	40°09'13.827"	106°54'5.567"	1063	8.4	0.5	143	11.2	47	8.7	2495	0.2	0.68	7.0	0-5
WLPS-41	DengkouB	40°07'22.691"	107°02'27.172"	1038	8.6	0.7	140	11.1	49	8.4	2224	0.9	0.82	6.6	0-5
WLPS-42	Wuyuan	41°18'35.383"	108°25'30.543"	1069	8.7	2.6	185	9.4	50	7.2	2222	4.6	1.00	6.1	0-5
WLPS-43	Wuyuan	41°18'32.605"	108°25'30.906"	1060	8.6	3.7	185	9.5	50	7.3	2222	5.2	1.00	6.1	0-5
WLPS-44	Wuyuan	41°18'29.645"	108°25'31.157"	1043	8.6	2.8	185	9.6	50	7.4	2222	6.0	0.73	6.8	0-5
WLPS-45	Wuyuan	41°18'19.915"	108°22'40.871"	1030	8.6	3.4	185	9.6	50	7.5	2222	2.0	1.07	5.9	0-5
WLPS-46	Baijunebo	41°24'35.421"	109°57'47.394"	1572	8.1	7.8	270	6.2	51	3.8	2304	10.9	0.72	6.9	0-5
WLPS-47	Baijunebo	41°24'36.075"	109°57'47.449"	1573	8.1	7.5	270	6.2	51	3.8	2304	11.9	0.74	6.8	0-5
WLPS-48	Baijunebo	41°24'34.148"	109°57'48.205"	1570	7.9	9.2	270	6.2	51	3.8	2304	9.7	0.75	6.8	0-5
WLPS-49	Guyang	41°05'14.487"	110°02'48.327"	1438	8.1	6.0	291	7.1	51	4.8	1945	17.7	0.85	6.5	0-5
WLPS-50	Guyang	41°05'14.487"	110°02'48.327"	1438	8.2	6.7	291	7.1	51	4.8	1945	18.5	0.88	6.5	0-5
WLPS-51	Guyang	41°05'14.487"	110°02'48.327"	1438	8.1	5.7	291	7.1	51	4.8	1945	14.5	0.79	6.7	0-5
WLPS-52	Batou	40°19'41.670"	110°04'5.674"	1570	7.8	9.4	298	6.7	51	4.4	1979	18.7	0.58	7.2	0-5
WLPS-53	Batou	40°19'41.670"	110°04'5.674"	1570	7.8	6.9	298	6.7	51	4.4	1979	10.3	0.64	7.1	0-5
WLPS-54	Batou	40°19'41.670"	110°04'5.674"	1570	7.9	14.4	298	6.7	51	4.4	1979	13.0	0.58	7.2	0-5
WLPS-55	DongshengA	39°55'40.441"	109°58'54.685"	1443	8.1	12.7	368	8.8	49	6.8	2272	7.4	0.51	7.4	0-5
WLPS-56	DongshengA	39°55'40.434"	109°58'53.738"	1439	8.2	12.8	368	8.9	49	6.9	2272	4.9	0.48	7.5	0-5
WLPS-57	DongshengA	39°55'38.677"	109°58'55.121"	1431	8.0	14.6	368	8.9	49	6.9	2272	9.6	0.60	7.2	0-5
WLPS-58	DongshengB	40°14'30.857"	109°59'16.060"	1193	8.3	11.7	340	9.7	51	7.3	2174	5.9	0.71	6.9	0-5
WLPS-59	DongshengB	40°14'30.849"	109°59'15.199"	1199	8.0	13.1	340	9.6	51	7.2	2174	8.3	0.88	6.5	0-5
WLPS-60	DongshengB	40°14'31.349"	109°59'16.642"	1193	8.0	13.7	340	9.7	51	7.3	2174	9.2	0.86	6.5	0-5
WLPS-61	Erdusi	39°27'52.818"	108°49'5.758"	1396	8.2	11.4	340	8.9	50	6.5	2226	3.4	0.61	7.1	0-5
WLPS-62	Erdusi	39°27'52.290"	108°49'4.221"	1398	8.2	12.2	340	8.9	50	6.5	2226	5.1	0.71	6.9	0-5
WLPS-63	Erdusi	39°27'51.770"	108°49'6.053"	1391	8.1	11.5	340	8.9	50	6.6	2226	4.3	0.67	7.0	0-5
WLPS-64	YulinA	38°56'7.513"	109°44'35.149"	1287	7.5	6.8	362	9.9	52	7.6	2079	2.7	0.66	7.0	0-5
WLPS-65	YulinA	38°56'7.325"	109°44'34.153"	1286	8.3	17.0	362	9.9	52	7.6	2079	27.2	0.68	7.0	0-5
WLPS-66	YulinA	38°56'6.896"	109°44'34.369"	1307	7.8	6.6	362	9.8	52	7.5	2079	2.9	0.76	6.8	0-5
WLPS-67	YulinB	38°33'5.537"	109°39'28.382"	1180	7.7	6.1	384	10.8	54	8.6	1933	1.0	0.65	7.1	0-5
WLPS-68	YulinB	38°33'6.420"	109°39'27.774"	1175	8.0	11.1	384	10.9	54	8.7	1933	6.6	0.77	6.7	0-5
WLPS-69	YulinB	38°33'5.852"	109°39'29.949"	1177	8.1	9.5	384	10.9	54	8.7	1933	6.6	1.07	5.9	0-5
WLPS-70	HenshanA	38°10'56.674"	109°26'6.066"	1133	8.3	16.7	370	11.1	53	9.0	2000	2.5	0.76	6.8	0-5
WLPS-71	HenshanA	38°10'55.921"	109°26'5.830"	1138	8.3	14.2	370	11.0	53	9.0	2000	1.1	0.63	7.1	0-5
WLPS-72	HenshanA	38°10'55.095"	109°26'5.324"	1144	7.8	7.4	370	11.0	53	8.9	2000	2.9	0.66	7.0	0-5
WLPS-73	HenshanB	37°43'23.312"	109°08'52.447"	1161	8.4	9.2	370	11.4	52	9.3	2012	1.7	0.92	6.3	0-5
WLPS-74	HenshanB	37°43'22.916"	109°08'52.255"	1160	8.4	8.9	370	11.4	52	9.4	2012	1.8	1.02	6.1	0-5
WLPS-75	HenshanB	37°43'22.392"	109°08'52.614"	1159	8.5	5.4	370	11.4	52	9.4	2012	0.7	0.77	6.7	0-5
WLPS-76	Jingbian	37°30'00.829"	108°51'53.886"	1677	8.3	12.1	385	8.9	52	6.7	1958	2.5	0.50	7.5	0-5
WLPS-77	Jingbian	37°30'02.562"	108°51'55.911"	1629	8.2	13.4	385	9.2	52	7.0	1958	2.3	0.47	7.5	0-5
WLPS-78	Jingbian	37°30'01.986"	108°51'58.230"	1614	8.2	11.5	385	9.3</							