

Table-TIMS-DR1: TIMS U-Pb geochronologic data and apparent ages (von Gosen et al.)

Sample CR-49D											
Sample	Pos-6	Pos-7 rc	Pos-8(1)	Pos-9 ic	Pos-10	Pos-11	Pos-6 ic	Pos-7	Pos-8(2)	Pos-9 rc	Pos-10 sl
no. of grains	2	1	1	1	1	1	1	1	1	1	1
ppm U	6172,85	1952.26	2824.92	3262.65	1432.36	4309.81	2691.02	1298.06	917.10	1993.27	1425.85
common Pb ppm	37,99	15.26	20.33	23.03	18.63	20.99	19.85	82.17	41.45	16.66	11.94
[206]nmoles/g	1510,48	544.496	515.325	950.62	397.19	1181.3	664.9	390.1	311.7	703.9	234.7
206/204	579,8	500.1	362.0	591.3	303.6	801.9	477.1	628.8	111.0	595.0	272.8
206/204 (corr.)	597,9	536.4	381.1	620.7	320.6	846.4	503.8	713.9	113.1	635.3	295.6
206*/238	0,0568956	0.0646179	0.0416634	0.0678242	0.0627366	0.0643149	0.0571187	0.0702359	0.0684472	0.0822652	0.0370468
207*/235	0,453841	0.465799	0.3354	0.57173	0.503113	0.511914	0.503293	0.560911	0.542554	0.636306	0.327455
207*/206*	0,0578528	0.0522811	0.0583857	0.0611371	0.0581626	0.0577277	0.0639059	0.0579206	0.0574892	0.0560981	0.0641063
206*/238 m.y.	356,7	403.6	263.1	423.0	392.2	401.8	358.1	437.6	426.8	509.6	234.5
207*/235 m.y.	380,0	388.3	293.7	459.1	413.8	419.7	413.9	452.1	440.1	500.0	287.6
207*/206* m.y.	524,2	297.7	544.3	644.1	535.9	519.4	738.5	526.8	510.3	456.3	745.1
206/204 %err	2,6	7.26	4.73	4.26	5.1	4.72	4.89	11.9	2.08	5.9	12.2
206*/238 %err	0,333	0.461	0.423	0.241	0.396	0.356	0.249	0.549	0.521	0.241	1.08
207*/235 %err	0,417	2.09	0.55	0.324	0.497	0.409	0.329	0.605	1.4	0.387	8.17
207*/206* %err	0,241	1.93	0.334	0.205	0.285	0.194	0.209	0.242	1.22	0.286	7.52
Rho	0,81635	0.4582	0.79523	0.77377	0.81929	0.88058	0.77406	0.916667	0.5062	0.67545	0.64464

**Sample CE-54D**

Sample	Pos-12 abr/ic	Pos-13 abr/ic	Pos-14 abr/ic	Pos-15 abr/ic	Pos-16 abr/ic	Pos-12	Pos-13	Pos-14	Pos-15	Pos-16
no. of grains	2	1	2	1	2	2	3	1	1	2
ppm U	4956.59	2258.06	4730.51	2348.52	5037,93	4087.85	11064	1817.26	1759.85	3464.2
common Pb ppm ppm	20.95	17.14	10.38	8.078	21,22	17.59	9,349	10.71	14.26	16.56
[206]nmoles/g	1705.59	906.18	1434.67	920.03	1574,32	1327.91	3812.33	669.42	618.34	1047.41
206/204	1158.6	744.9	1866.6	1496.5	1056,8	1064.05	5434.85	849.48	604.39	888.65
206/204 (corr.)	1224.4	794.9	2079.0	1712.6	1115,8	1135.15	6131.54	940.21	652.06	950,991
206*/238	0.0812864	0.0940314	0.0720838	0.0929359	0,073711	0.0766457	0.0823726	0.0866239	0.0819083	0.0711152
207*/235	0.695349	0.80397	0.605001	0.783533	0,569075	0.613693	0.65589	0.690041	0.653104	0.559718
207*/206*	0.0620417	0.0620105	0.060872	0.0611467	0,055993	0.0580714	0.0577493	0.0577745	0.0578299	0.0570829
206*/238 m.y.	503.8	579.3	448.7	572.9	458,5	476.1	510.3	535.5	507.5	442.9
207*/235 m.y.	536.0	599.1	480.4	587.5	457,4	485.9	512.1	532.8	510.4	451.3
207*/206* m.y.	675.5	674.5	634.7	644.4	452,1	532.5	520.3	521.2	523.3	494.7
206/204 %err	4.91	5.77	9.63	12.4	4,76	6.67	10.8	9.23	6.87	6.02
206*/238 %err	1.72	0.367	0.349	1.03	1,91	1	0.667	0.35	0.475	0.982
207*/235 %err	1.75	0.446	0.366	1.05	1,93	1.42	0.677	0.408	0.528	1.03
207*/206* %err	0.298	0.241	0.104	0.174	0,273	0.962	0.113	0.2	0.22	0.308
Rho	0.985402	0.84127	0.958495	0.986151	0,98995	0.73729	0.985907	0.87227	0.909628	0.954599

Sample CE-55D										
Sample	Pos-6	Pos-7	Pos-8	Pos-10	Pos-11	Pos-12	Pos-13	Pos-14	Pos-15	Pos-16
no. of grains	1	1	2	3	1	1	1	1	1	1
ppm U	2163.48	2044.34	4549.89	5043.23	2463.38	1329.42	2301.71	1868.74	1059.83	1107.26
common Pb ppm	70.88	77.71	14.54	20.72	13.55	4614.00	6012.00	11.51	4468.00	5952.00
[206]nmoles/g	710.10	730.59	1518.39	1870.2	843.6	438.5	708.8	591.7	348.5	388.0
206/204	1294.9	1230.5	1452.1	1283.2	863.0	1144.8	1485.9	703.6	935.5	823.9
206/204 (corr.)	1506.4	1413.7	1570.2	1357.0	936.4	1429.1	1772.8	772747.0	1172.9	980154.0
206*/238	0.0777521	0.0845905	0.0790935	0.0877285	0.080525	0.0780781	0.0730858	0.0741465	0.0776237	0.082464
207*/235	0.606264	0.666655	0.625809	0.707356	0.640901	0.625825	0.582605	0.577407	0.623965	0.63858
207*/206*	0.056552	0.0571582	0.0573852	0.0584784	0.057724	0.0581329	0.0578149	0.0564794	0.0582995	0.0561629
206*/238 m.y.	482.7	523.5	490.7	542.1	499.3	484.6	454.7	461.1	481.9	510.8
207*/235 m.y.	481.2	518.7	493.5	543.2	502.9	493.5	466.1	462.8	492.3	501.4
207*/206* m.y.	474.1	497.6	506.4	547.7	519.3	534.8	522.8	471.3	541.0	458.8
206/204 %err	14.1	12.8	6.95	4.91	7.3	21.5	16.6	8.68	22.2	16.7
206*/238 %err	0.533	1.18	0.333	0.822	0.606	0.393	0.337	0.462	0.44	1.31
207*/235 %err	0.588	1.21	0.407	0.853	0.644	0.498	0.419	0.775	0.58	1.48
207*/206* %err	0.235	0.254	0.22	0.215	0.208	0.297	0.236	0.586	0.358	0.646
Rho	0.917041	0.977847	0.84193	0.967738	0.946442	0.80266	0.82603	0.65704	0.78804	0.89938

analytical errors are quoted at 1 sigma level

data point ellipses are 2 sigma

grey marked positions are excluded for concordia calculation: ic = inherited core, rc = reverse concordant, sl = strong Pb-loss, abr = abraded

calculated concordia data are quoted at 95% level

used programs: PBDAT vers. 1.24, July 30, 1993, and ISOPLOT vers. 3.50, June 21, 2006 with kind permission of K.J. Ludwig (Berkeley Geochronology Center)

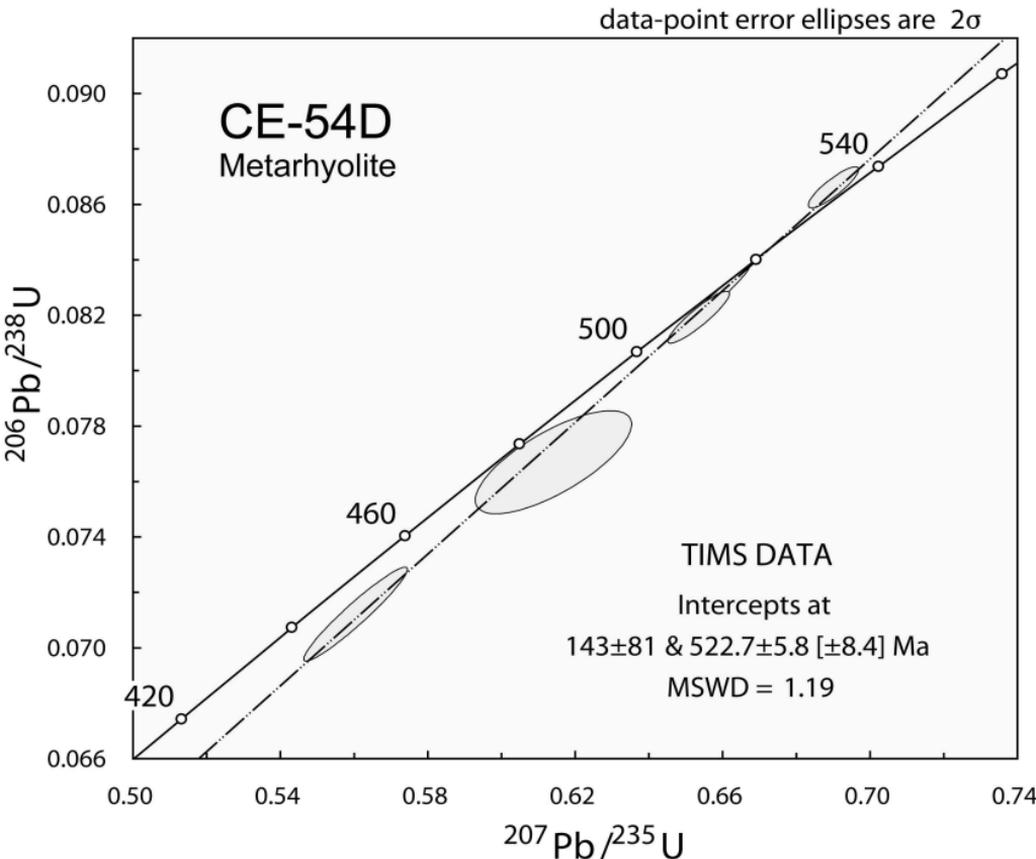


Figure-TIMS-DR1: Concordia diagram of single zircons (TIMS), sample CE-54D. Abraded zircons with cores are not used for the calculation (von Gosen et al.).

The TIMS analyses define a linear array indicating Pb-loss at about 145 Ma (lower intercept) and a crystallization age of  $522.7 \pm 5.8$  [ $\pm 8.4$ ] Ma (upper intercept). Abrasion of some grains clearly enhanced the presence of inherited cores. Analyses impacted by the presence of cores are not included in the regression and not plotted.

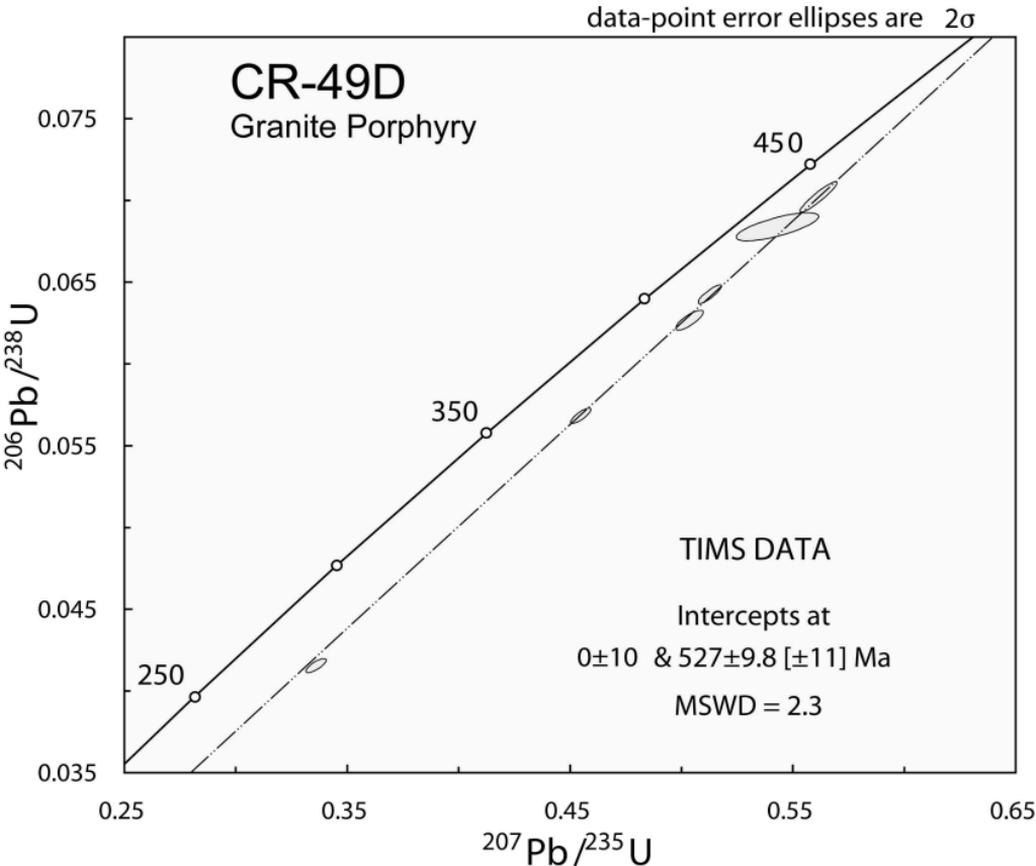


Figure-TIMS-DR2: Concordia diagram based on single zircons (TIMS), sample CR-49D (von Gosen et al.)

Excluding two reversely concordant analyses and one showing extreme Pb-loss and forcing a lower intercept of  $0 \pm 10$  Ma, the remaining analyses define a Pb-loss cord with an upper intercept of  $527 \pm 9.8 [\pm 11]$  Ma.

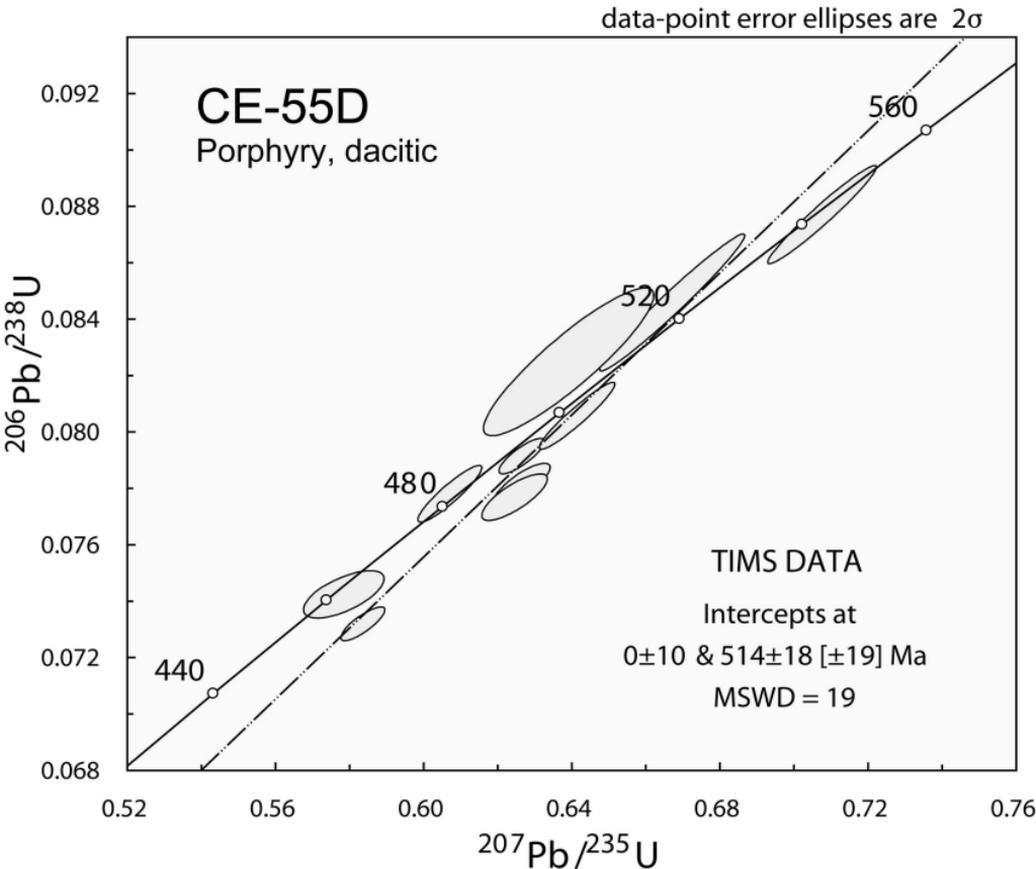


Figure-TIMS-DR3: Concordia diagram based on single zircons (TIMS), sample CE-55D (von Gosen et al.)

Concordant to discordant single grain TIMS analyses show considerable scatter ranging from 460 to 540 Ma and defining a linear array with an upper intercept of  $514 \pm 18$  [ $\pm 19$ ] Ma.