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Supplemental Material

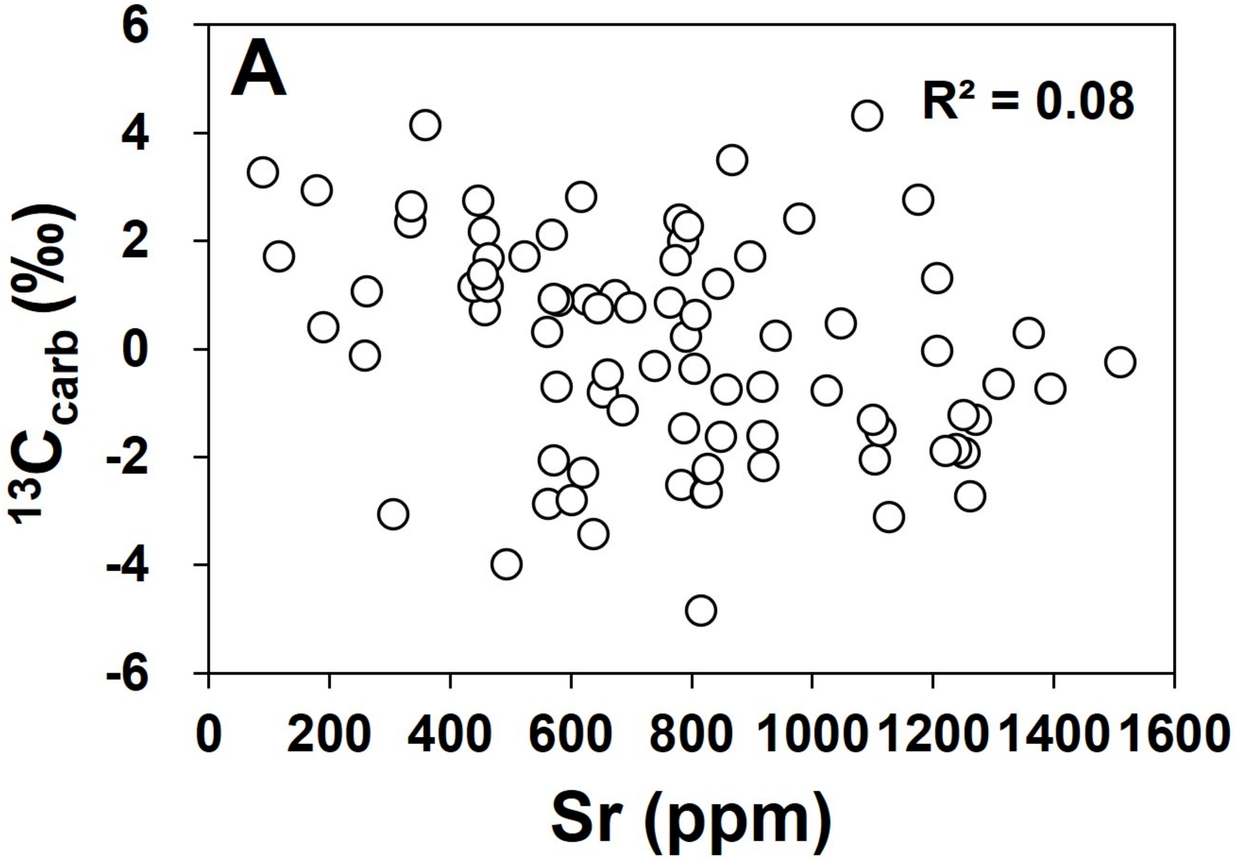
Figure S1. Crossplots of Sr versus $\delta^{13}C_{carb}$ (A), Mn/Sr versus $\delta^{13}C_{carb}$ (B), Mg/Ca versus $\delta^{13}C_{carb}$ (C), and $\delta^{18}O$ versus $\delta^{13}C_{carb}$ (D).

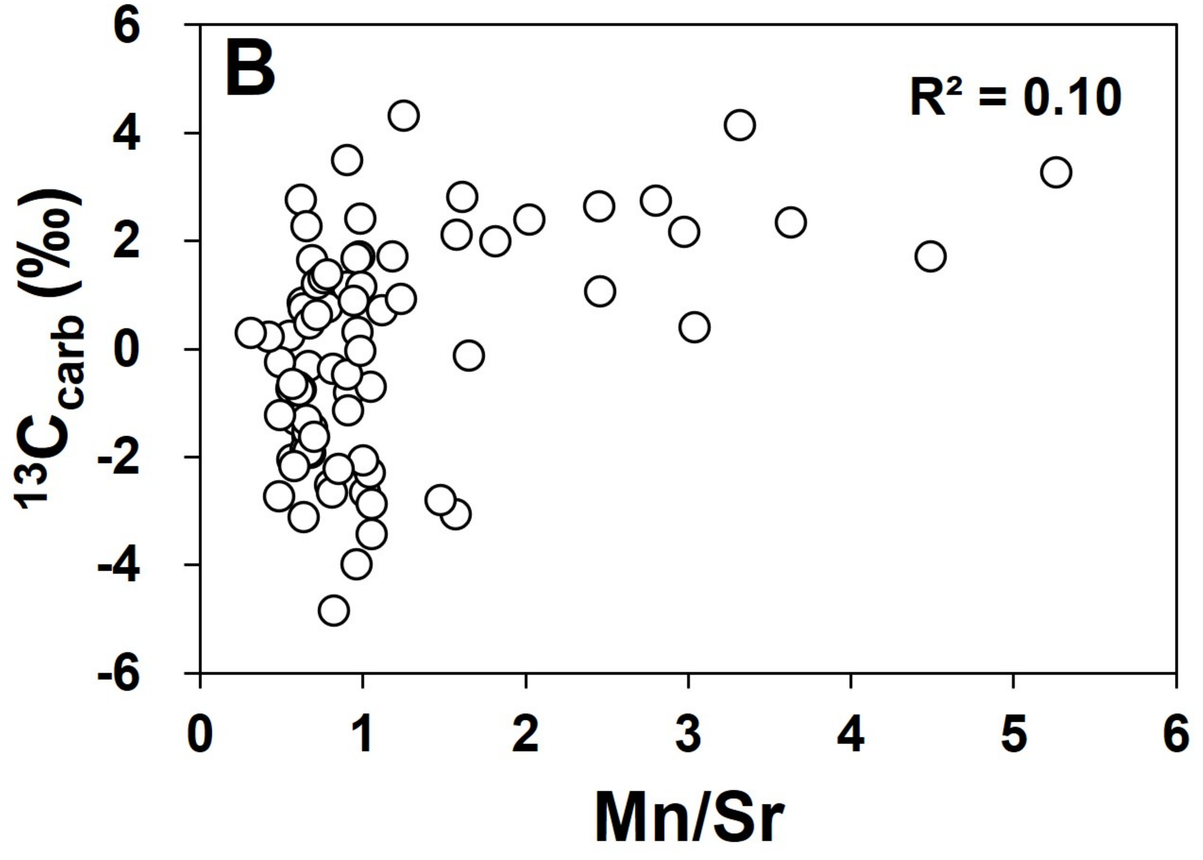
Figure S2. A–CN–K (Al_2O_3–CaO*+Na_2O–K_2O) ternary diagram of the samples from drill core QY 1. CIA—chemical index of alteration; Pl—plagioclase; Kfs—K-feldspar; Sm—smectite; Kln—kaolinite; Chl—chlorite; Ms—muscovite.

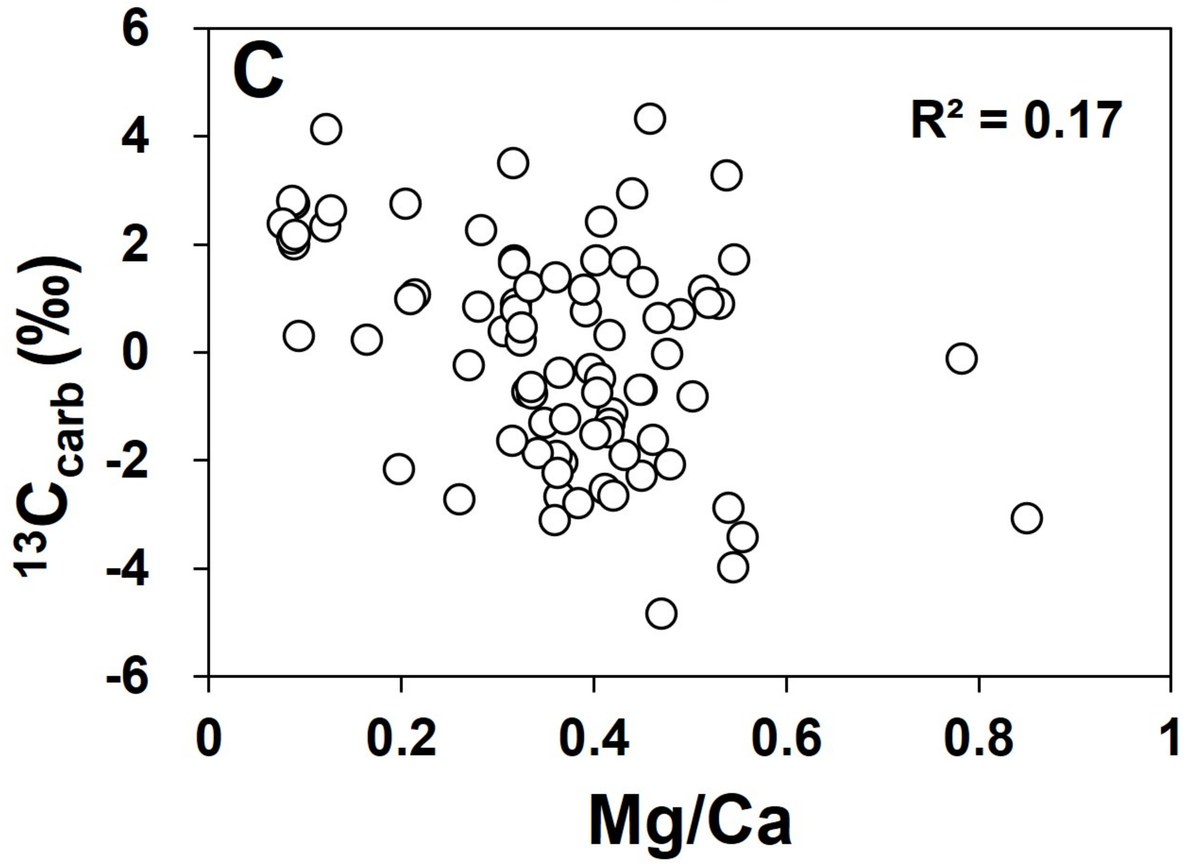
Figure S3. Crossplots of Al/Ti versus CIA (A) and Th/Sc versus CIA (B).

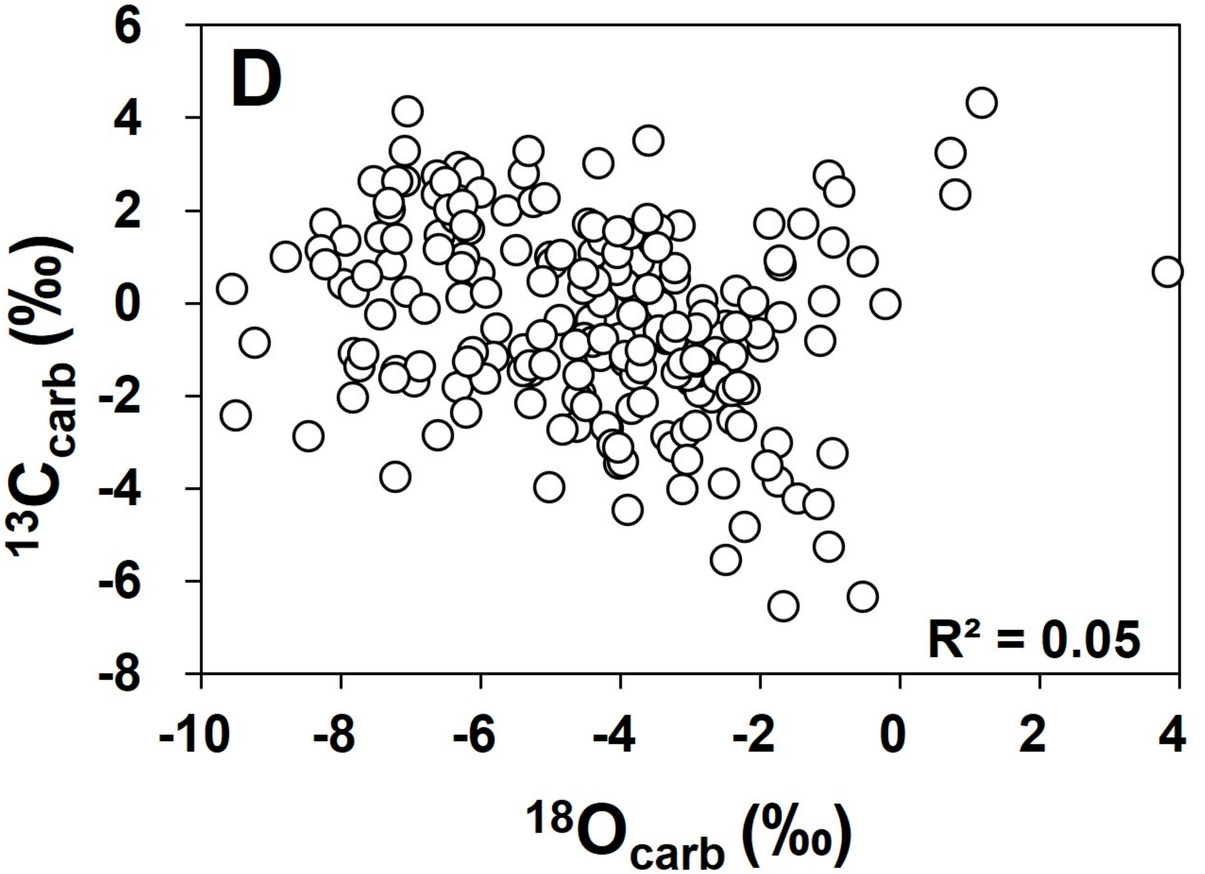
Figure S4. Crossplots of CaO versus Sr (A) and CaO versus Sr/Ba (B).

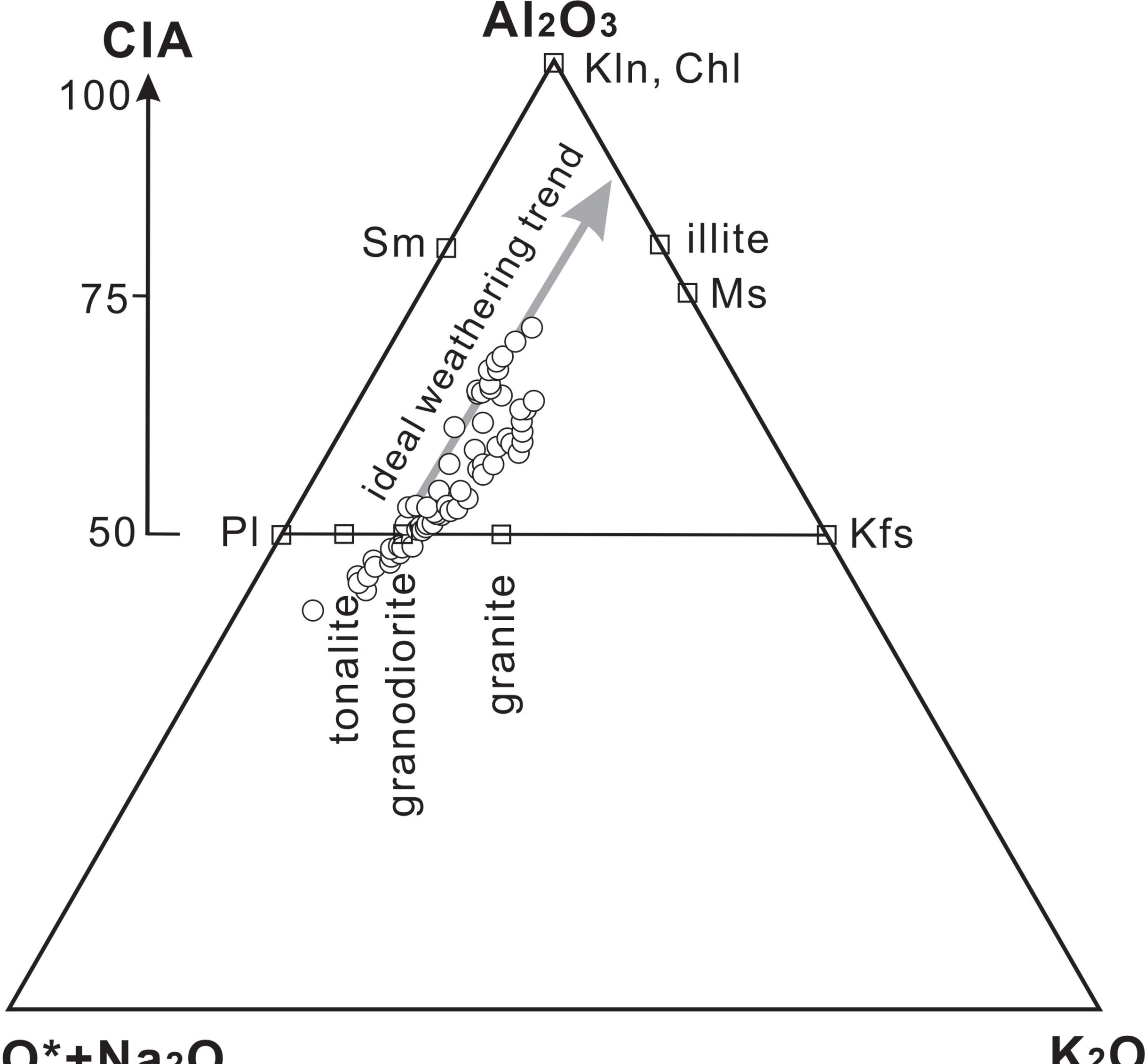
Table S1. Geochemical and mineralogical data for lacustrine sediments in Member II of the Paleocene Funing Formation (E_1f_2) from drill core QY 1 in the Subei Basin.

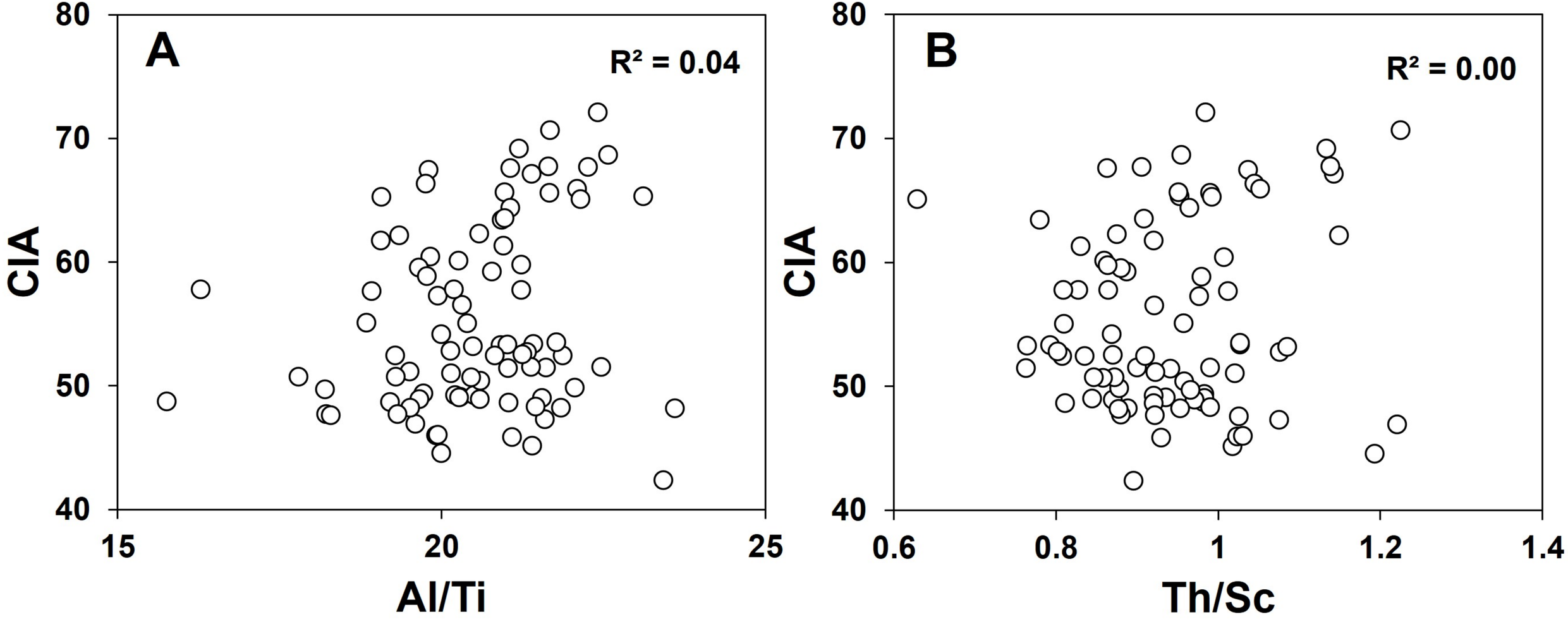

A
R² = 0.08
$^{13}C_{carb}$ (‰)
Sr (ppm)
6
4
2
0
-2
-4
-6
0
200
400
600
800
1000
1200
1400
1600

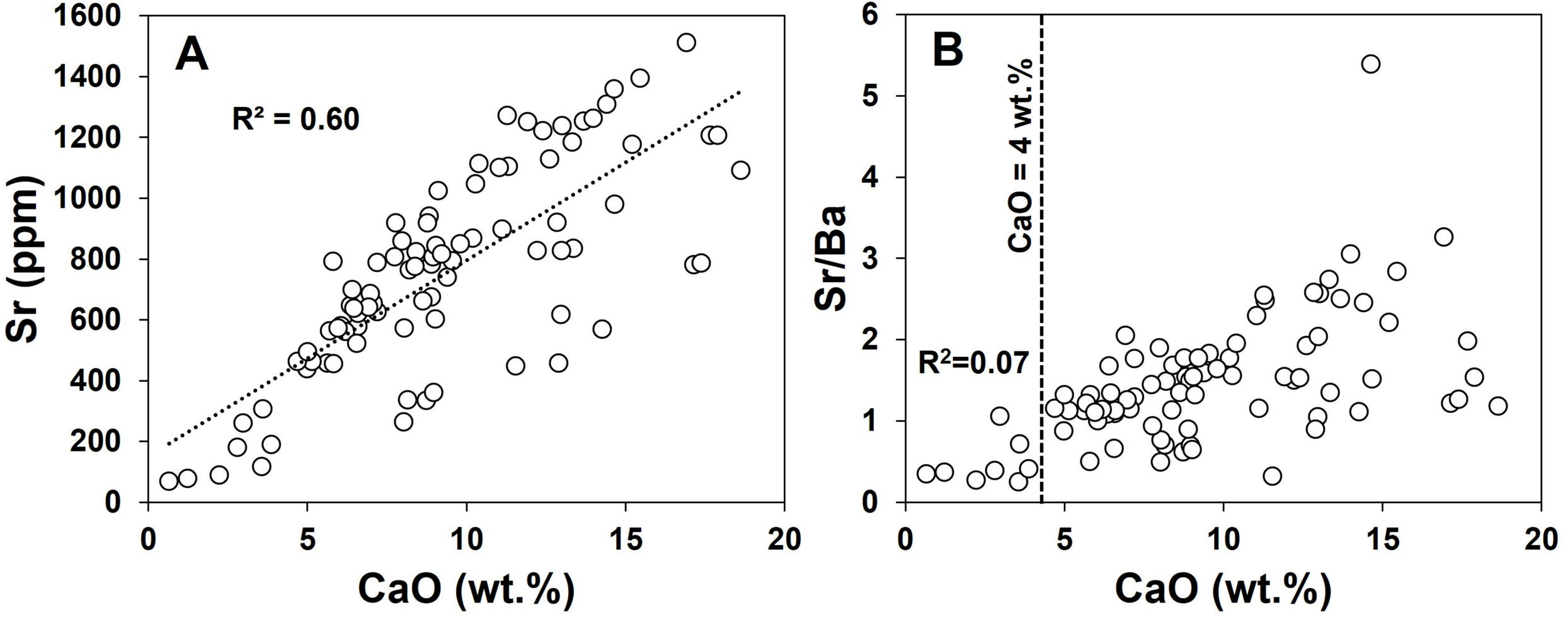

B
R² = 0.10
$^{13}C_{carb}$ (‰)
Mn/Sr
6
4
2
0
-2
-4
-6
0
1
2
3
4
5
6


C
R² = 0.17
$^{13}C_{carb}$ (‰)
Mg/Ca
6
4
2
0
-2
-4
-6
0
0.2
0.4
0.6
0.8
1


D
R² = 0.05
$^{13}C_{carb}$ (‰)
$^{18}O_{carb}$ (‰)
6
4
2
0
-2
-4
-6
-8
-10
-8
-6
-4
-2
0
2
4


CIA
100
75
50
Al_2O_3
Kln, Chl
Sm
illite
Ms
Pl
Kfs
ideal weathering trend
tonalite
granodiorite
granite
CaO^*+Na_2O
K_2O


A
R² = 0.04
CIA
80
70
60
50
40
15
20
25
Al/Ti
B
R² = 0.00
CIA
80
70
60
50
40
0.6
0.8
1
1.2
1.4
Th/Sc


A
R² = 0.60
Sr (ppm)
CaO (wt.%)
0
200
400
600
800
1000
1200
1400
1600
0
5
10
15
20
B
CaO = 4 wt.%
R²=0.07
Sr/Ba
CaO (wt.%)
0
1
2
3
4
5
6
0
5
10
15
20