

**Table S2.** Quantitative phase analysis obtained from XRPD using the Rietveld method (standard deviations are given in parentheses).

Sample	Chemical composition	QPA				
		K-feldspar	Albite	Quartz	Kaolinite	
Sanadine	FHS-1	$\text{Na}_{0.34}\text{K}_{0.60}\text{Ca}_{0.01}\text{Al}_{1.05}\text{Si}_{2.97}\text{O}_8$	100.00	/	/	/
Orthoclase	CHG-2	$\text{Na}_{0.23}\text{K}_{0.68}\text{Ca}_{0.01}\text{Al}_{0.98}\text{Si}_{3.03}\text{O}_8$	75.53(27)	17.44(39)	7.03(20)	/
	CHG-12	$\text{Na}_{0.22}\text{K}_{0.67}\text{Ca}_{0.01}\text{Al}_{0.99}\text{Si}_{3.03}\text{O}_8$	85.05(13)	10.60(35)	4.35(20)	/
	CSY-1	$\text{Na}_{0.26}\text{K}_{0.67}\text{Ca}_{0.01}\text{Al}_{0.99}\text{Si}_{3.02}\text{O}_8$	73.32(24)	23.05(27)	3.63(16)	/
	CSY-2	$\text{Na}_{0.09}\text{K}_{0.78}\text{Ca}_{0.01}\text{Al}_{0.99}\text{Si}_{3.04}\text{O}_8$	88.05(15)	/	6.49(18)	5.46(39)
	CSY-3	$\text{Na}_{0.15}\text{K}_{0.79}\text{Ca}_{0.01}\text{Al}_{0.98}\text{Si}_{3.02}\text{O}_8$	84.47(14)	11.58(44)	3.95(22)	/
Microcline	LS-1	$\text{Na}_{0.22}\text{K}_{0.75}\text{Al}_{1.03}\text{Si}_{2.99}\text{O}_8$	86.10(15)	13.90(36)	/	/
	LS-2	$\text{Na}_{0.18}\text{K}_{0.78}\text{Ca}_{0.01}\text{Al}_{1.05}\text{Si}_{2.97}\text{O}_8$	90.99(10)	9.01(35)	/	/
	SX-1	$\text{Na}_{0.12}\text{K}_{0.84}\text{AlSi}_{3.01}\text{O}_8$	96.53(5)	3.47(29)	/	/
	TG-3	$\text{Na}_{0.32}\text{K}_{0.65}\text{Ca}_{0.01}\text{Al}_{0.99}\text{Si}_{3.01}\text{O}_8$	72.71(28)	27.29(38)	/	/
	TG-4	$\text{Na}_{0.19}\text{K}_{0.78}\text{Ca}_{0.01}\text{Al}_{1.01}\text{Si}_3\text{O}_8$	84.22(16)	15.78(37)	/	/