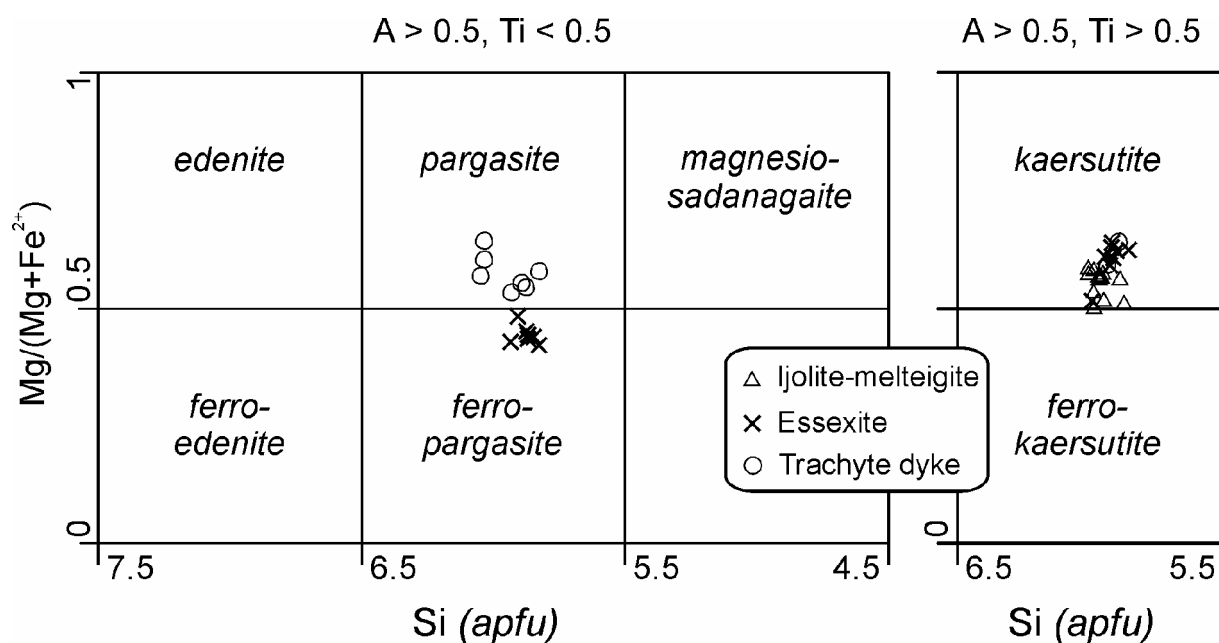


## Supplement S5

**Tab. S5** Representative microprobe analyses of amphibole (wt. %) with formulas calculated to 22 O and 2 (OH, F, Cl)

Rock	Ijolite		Essexite		Trachyte (dyke)	
Sample	DH1319B and DH1329		DI-3		DB2/18.2m	
n	12		15		9	
Variety	mg# max	mg# min	mg# max	mg# min	mg# max	mg# min
SiO <sub>2</sub>	39.39	39.01	39.16	37.56	38.00	38.15
TiO <sub>2</sub>	5.64	5.33	6.58	3.42	5.29	3.97
Al <sub>2</sub> O <sub>3</sub>	11.65	11.48	12.39	13.41	11.93	12.20
Cr <sub>2</sub> O <sub>3</sub>	0.04	0.00	0.00	0.02	0.00	0.00
FeO	13.29	16.53	11.15	19.52	11.45	15.49
MnO	0.19	0.30	0.17	0.45	0.19	0.54
MgO	10.59	9.29	11.05	7.27	11.41	9.60
CaO	11.69	11.49	11.95	11.40	12.28	11.72
BaO	0.04	0.00	0.09	0.01	0.02	0.02
Na <sub>2</sub> O	2.19	2.37	2.32	2.20	2.29	2.37
K <sub>2</sub> O	1.91	1.75	1.69	2.37	1.93	1.96
F	0.83	0.67	0.39	0.36	0.74	0.89
Cl	0.03	0.06	0.03	0.08	0.01	0.05
Total	97.48	98.29	96.97	98.08	95.52	96.97
Si	6.006	5.983	5.917	5.833	5.889	5.932
Al(T)	1.994	2.017	2.083	2.167	2.111	2.068
Al(C+)	0.099	0.057	0.123	0.289	0.068	0.168
Ti	0.647	0.614	0.747	0.400	0.616	0.464
Fe <sup>3+</sup>	-	-	-	0.209	0.000	0.074
Cr	0.004	0.000	-	0.002	0.000	0.000
Mg	2.407	2.123	2.490	1.684	2.636	2.226
Fe	1.695	2.120	1.408	2.326	1.484	1.940
Mn	0.024	0.039	0.022	0.060	0.025	0.071
Ca(C+)	0.123	0.047	0.209	0.030	0.170	0.057
Ca(B)	1.786	1.842	1.726	1.867	1.869	1.896
Ba	0.002	0.000	0.005	0.000	0.001	0.001
Na	0.212	0.158	0.269	0.133	0.130	0.103
Na	0.436	0.547	0.409	0.530	0.558	0.611
K	0.372	0.343	0.325	0.470	0.382	0.389
Σ cations	15.808	15.890	15.734	16.000	15.940	16.000
O	22.000	22.000	22.000	22.000	22.000	22.000
F	0.402	0.325	0.188	0.178	0.363	0.438
Cl	0.008	0.016	0.007	0.021	0.003	0.013
OH	1.590	1.658	1.804	1.801	1.635	1.549
mg#	0.587	0.500	0.639	0.399	0.640	0.525

$$\text{mg\#} = \text{Mg}/(\text{Mg} + \text{Fe}_{\text{tot}})$$



**Fig. S5** Classification of analyzed amphiboles from the Doupov Intrusive Complex. Amphibole nomenclature is according to Leake et al. (2002). Vertical position of points depends on the method of formula calculation and some ferropargasite analyses may represent, in fact, pargasite.