Supplementary Table 1: Representative EDS measurements for mineral chemistry of amphiboles and plagioclase from experiments performed at Pc = 1.0 GPa on Maryland Diabase. Mineral chemistries are given as oxide wt%, calculated mineral formula, and mole-% of elements. “Newly grown” plagioclase denotes to fine-grained plagioclase grown in shear bands.

norm. to 98%	Amphibole				norm to	Plagioclase	
Sample nr:	414	414	490	490	100%	MD starting	Newly
wt.-%	Tschermak.	Mg Hornbl	Mg Hornbl	Tschermak.	**wt.-%**	material	grown
SiO2	45.18	45.72	47.76	47.31	SiO2	51.86	50.38
Al2O3	17.13	14.13	13.06	17.73	Al2O3	29.92	29.69
CaO	9.24	8.92	9.45	10.02	CaO	13.39	9.66
Na2O	1.63	1.74	2.12	1.84	Na2O	3.63	9.13
K2O	1.26	0.86	0.89	0.90	K2O	0.26	0.55
MgO	7.56	9.95	11.24	7.39	MgO	0.00	0.00
TiO2	0.00	1.78	0.00	0.00	TiO2	0.00	0.00
FeO	15.99	14.90	13.48	12.81	FeO	0.94	0.58
MnO	0.00	0.00	0.00	0.00	MnO	0.00	0.00
Cr2O3	0.00	0.00	0.00	0.00	Cr2O3	0.00	0.00
Total:	**97.99**	**98.00**	**97.99**	**98.00**	**Total:**	**100.00**	**100.00**
Formula per 23 oxygen					Formula per 23 oxygen		
Si	6.59	6.76	6.89	6.77	Si	2.36	2.51
Ti	0.00	0.00	0.00	0.00	Ti	0.00	0.00
Al	2.95	2.46	2.22	2.99	Al	1.61	1.48
Fe3+	0.00	0.00	0.00	0.00	Fe3+	0.00	0.00
Cr	0.00	0.00	0.00	0.00	Cr	0.00	0.00
Mg	1.65	2.19	2.42	1.58	Mg	0.00	0.00
Ca	1.45	1.41	1.46	1.54	Ca	0.65	0.48
Mn	0.00	0.00	0.00	0.00	Mn	0.00	0.00
Fe2+	1.95	1.84	1.63	1.53	Fe2+	0.04	0.03
Na	0.46	0.50	0.59	0.51	Na	0.32	0.46
K	0.23	0.16	0.16	0.16	K	0.02	0.03
Total	**15.28**	**15.34**	**15.38**	**15.08**	**Total**	**5.00**	**4.99**
mol-%					**mol-%**		
Si	43.16	44.09	44.82	44.89	Si	47.31	50.38
Ti	0.00	0.00	0.00	0.00	Ti	0.00	0.00
Al	19.29	16.06	14.45	19.83	Al	32.17	29.69
Fe3+	0.00	0.00	0.00	0.00	Fe3+	0.00	0.00
Cr	0.00	0.00	0.00	0.00	Cr	0.00	0.00
Mg	10.77	14.30	15.73	10.45	Mg	0.00	0.00
Ca	9.46	9.22	9.50	10.19	Ca	13.09	9.66
Mn	0.00	0.00	0.00	0.00	Mn	0.00	0.00
Fe2+	12.77	12.02	10.58	10.17	Fe2+	0.72	0.58
Na	3.02	3.25	3.86	3.39	Na	6.42	9.13
K	1.54	1.06	1.07	1.09	K	0.30	0.55
Total	**100.00**	**100.00**	**100.00**	**100.00**	**Total**	**100.00**	**100.00**