Table 1. Plagioclase sample characteristics

Sample	Locality and source	Composition	Notes
albite*	Amelia Courthouse, VA	$Ab_{96.4\text{-}98.5}An_{.3\text{-}2.4}Or_{.8\text{-}2.4}$	Q_{od} ($C\bar{1}$) = .92[a] or 1[b] pegmatitic
FSU	unknown mineral dealer	$Ab_{94}An_5Or_1$	transparent green, gemmy few very small inclusions visible on 010
FON	Hawk Mine, NC Smithsonian NMNH #R2898	$Ab_{78}An_{19}Or_3$	colorless crystal with schiller Q_{od} ($C\bar{1}$) = .55[b] pegmatic albite twins, .3-.5 mm inclusions
FLN	Tabor Island, Nain, Labrador, Canada purchased from Excalibur Mineral Co.	$Ab_{51}An_{47}Or_2$	Grey color with distinct albite twinning visible on (001). Illmenite inclusions. Irridescence on (010) suggests Bøggild intergowth
FLT	Tuléar Province, Madagascar	$Ab_{45}An_{52}Or_2$	irridescence on (010) suggests Bøggil intergrowth, "peacock blue" color
FBM	Mexico mineral dealer	$Ab_{39}An_{59}Or_2$	large transparent yellowish crystal
FLC	Clear Lake, Utah Smithsonian NMNH #C5869	$Ab_{36}An_{63}Or_1$	transparent yellow, gemmy Sharp a and b reflections only? Gay56
FLL	Lakeview, Lake Co., Oregon purchased from Minerals Unlimited	$Ab_{33}An_{65}Or_1$	Q_{od} ($I\bar{1}$)[a] = .56 or .67 labradorite phenocrysts in basalt. Sharp a and b reflections and diffuse e and c reflections[c].
anorthite	synthetic	An_{100}	Anorthite mat, polycrystalline and probably containing some glass

*analyzed in a previous study (Hofmeister et al, 2009). The composition values taken from the literature. Order parameters: Q_{od} ($C\bar{1}$) = 1 is completely ordered, 0 is completely disordered; Q_{od} ($I\bar{1}$) = 0 is $C\bar{1}$, 1 is $I\bar{1}$ taken from [a] Angel et al (1990) and [b] Tribaudino et al (2010). [c]From single crystal x-ray analysis (Wenk, 1980).

Table 2. Fits for plagioclase: $1/D = A + B \times 10^{-3}T + C \times 10^{-6}T^2 + E \times 10^{-10}T^3$

Sample	D_{298}	A	B	C	E	R	fit to max temp (K)
FSU 010	1.270	0.12764	2.8317	-2.2983	7.089	.99589	1355
FSU 001	1.102	0.32587	2.4352	-1.867	5.5956	.99749	1355
FSU ⊥‡	0.933						
FON 010	0.919	0.37311	3.3609	-3.2593	11.28	.9977	1165
FON 001	0.979	0.1606	4.1008	-4.2673	16.196	.9968	1160
FON ⊥	0.868	-0.12683	5.9887	-6.1487	21.71	.99548	1165
FLN 010	0.892	0.87027	0.8544	0.56329	-5.3968	.99301	1315
FLN 001	0.956	0.8487	0.55316	1.031	-6.5271	.99349	1327
FLN ⊥	0.797	0.58276	2.8072	-1.7825	3.6512	.99804	1315
FLT010	0.780						
FLT001	0.882						
FLT⊥	0.758						
FBM 010	0.794	0.78365	2.1618	-1.8828	5.6729	.99512	1553
FBM 001	0.776	0.765	2.3826	-2.2863	8.1682	.99769	1553
FBM ⊥	0.632	0.97549	2.7887	-2.5002	7.9683	.99405	1357
FLC010	0.884						
FLC001	0.836						
FAL							
FLL 010	0.767	0.62803	3.1953	-3.1519	10.438	.9878	1350
FLL 001	0.751	0.94814	1.767	-1.6872	5.9099	.99382	1350
FLL ⊥	0.811	0.63794	3.0079	-2.9822	9.7881	.97055	1350

In samples FON and FLL, measurements affected by melting onset were not included in fits. ‡Due to smalll sample size, FSU⊥ was measured at room temperature only. FLT, FLC and FAL were measured at room temperature, only.