**Supporting information for article:**

The incommensurately modulated structures of volcanic plagioclase: displacement, ordering and phase transition

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Table S1

	Weight%							Formula normalized to 8 oxygen							Composition
	SiO_2	Al_2O_3	FeO	CaO	Na_2O	K_2O	Totals	Si	Al	Fe	Ca	Na	K	Totals	
MXCG	53.135	30.033	0.388	11.908	4.628	0.261	100.354	2.399	1.598	0.013	0.576	0.405	0.015	13.006	$An_{57.8}Ab_{40.7}Or_{1.5}$
	53.407	30.111	0.388	11.949	4.660	0.271	100.786	2.401	1.595	0.013	0.575	0.406	0.016	13.006	$An_{57.7}Ab_{40.7}Or_{1.6}$
	53.282	29.790	0.421	11.962	4.673	0.261	100.389	2.405	1.585	0.014	0.579	0.409	0.015	13.007	$An_{57.7}Ab_{40.8}Or_{1.5}$
	53.201	29.873	0.498	11.974	4.597	0.266	100.407	2.401	1.589	0.017	0.579	0.402	0.015	13.004	$An_{58.1}Ab_{40.4}Or_{1.5}$
	53.807	29.552	0.391	12.153	4.580	0.258	100.741	2.419	1.566	0.013	0.585	0.399	0.015	12.998	$An_{58.6}Ab_{39.9}Or_{1.5}$
	53.320	29.769	0.404	12.219	4.610	0.292	100.614	2.404	1.582	0.014	0.590	0.403	0.017	13.009	$An_{58.4}Ab_{39.9}Or_{1.7}$
96GM1	53.437	30.272	0.552	12.444	4.299	0.318	101.322	2.392	1.597	0.019	0.597	0.373	0.018	12.996	$An_{60.4}Ab_{37.8}Or_{1.8}$
	53.276	30.140	0.538	12.401	4.302	0.325	100.982	2.393	1.596	0.018	0.597	0.375	0.019	12.997	$An_{60.3}Ab_{37.8}Or_{1.9}$
	52.314	29.858	0.481	12.482	4.333	0.335	99.803	2.381	1.602	0.016	0.609	0.382	0.019	13.010	$An_{60.2}Ab_{37.8}Or_{1.9}$
	53.432	30.209	0.619	12.385	4.302	0.342	101.289	2.393	1.595	0.021	0.594	0.374	0.020	12.996	$An_{60.2}Ab_{37.8}Or_{2.0}$
	53.026	30.385	0.559	12.367	4.341	0.316	100.992	2.382	1.609	0.019	0.595	0.378	0.018	13.002	$An_{60.0}Ab_{38.1}Or_{1.8}$
	53.498	30.382	0.622	12.500	4.246	0.319	101.567	2.389	1.599	0.021	0.598	0.368	0.018	12.994	$An_{60.8}Ab_{37.4}Or_{1.9}$
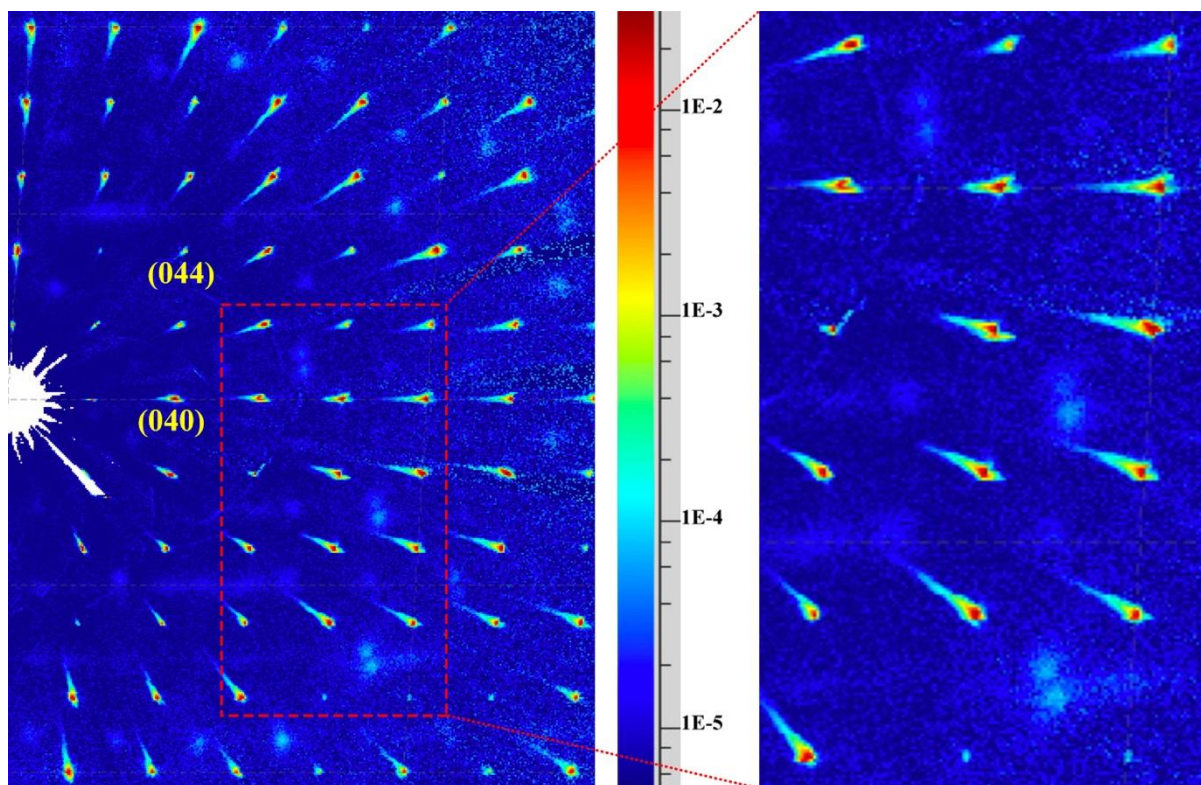
Fig. S1 The 0*kl* slice of the single-crystal neutron diffraction data of sample MXCG (before heating). The section with stronger *e*-reflections is blown up and shown on the right. The intensity distribution is very similar to the X-ray data