

Supplementary Information Files

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**The enigma of labradorite feldspar with incommensurately modulated structure, solved**

**Shiyun Jin and Huifang Xu**

NASA Astrobiology Institute, Department of Geoscience, University of Wisconsin–Madison,  
Madison, Wisconsin 53706

1. Supplementary Data

cif file modulated structure (*X*), average structure (*C*), and 3 local structures.

All movies – open in web browser to see the animation.

2. Supplementary Movie 1

The modulated structure illustrated in (3+1)D superspace. The phase parameter *t* is shown as time in the movie.

3. Supplementary Movie 2

The electron density map project along *a*-axis. Two M sites related by inversion center are shown together as in Fig. 6.

4. Supplementary Movie 3

The modulation of M site coupled with the distortion/tilt of surrounding tetrahedral framework. The two M sites related by inversion center are on top of each other looking down *a*\* direction.