



## **On the pertinence of perthite**

Lucie Tajcmanova (1) and Yury Podladchikov (2)

(1) Institute of Earth Sciences, Heidelberg University, Germany (lucataj@gmail.com), (2) Institute of Earth Sciences, Lausanne University, Switzerland

Perthite is a typical microstructure in alkali feldspar that is generated by exsolution of a more albite-rich phase from alkali feldspar or ternary feldspar of an intermediate composition producing at the same time a more orthoclase rich host.

Despite of the recent valuable progress in our understanding of these microstructures, the mechanisms controlling perthite evolution from slowly cooled rocks are, however, still not complete. Namely, the careful theoretical, numerical and experimental investigations focus only on chemical aspect of the process. Interestingly, mechanics, i.e. stress and pressure redistribution around the exsolved lamellae, may play an important role on its evolution.

In this contribution, we investigate the coupled, chemo-mechanical, effect around the exsolved lamellae. We also discuss the general importance of the exsolution process in geomaterials and its effect on rheology.