

## Ti-in-quartz thermometry of UHT-granulites

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Samples of granulites bearing the orthopyroxene + sillimanite + quartz and sapphirine + quartz assemblages from the Sutam, Chogar and Sharyzhalgay complexes, East Siberia have been investigated with the microprobe. The analyses reveal inhomogeneity of quartz in terms of Ti contents, which is also supported by the cathodoluminescence imaging. Application of both the thermometry based on distribution of major components between minerals and thermometry based on Ti contents of quartz show satisfactory agreement of the methods, with the estimates demonstrating significant scatter that may reflect evolution of metamorphic conditions. Anomalously low temperature estimates of  $700 \pm 50^\circ\text{C}$  have been obtained for the sapphirine + quartz bearing sample from the Sharyzhalgay complex, while for other samples the estimates correspond to conventional high-temperature ranges. The study was supported by the RFBR grant #12-05-00706.