

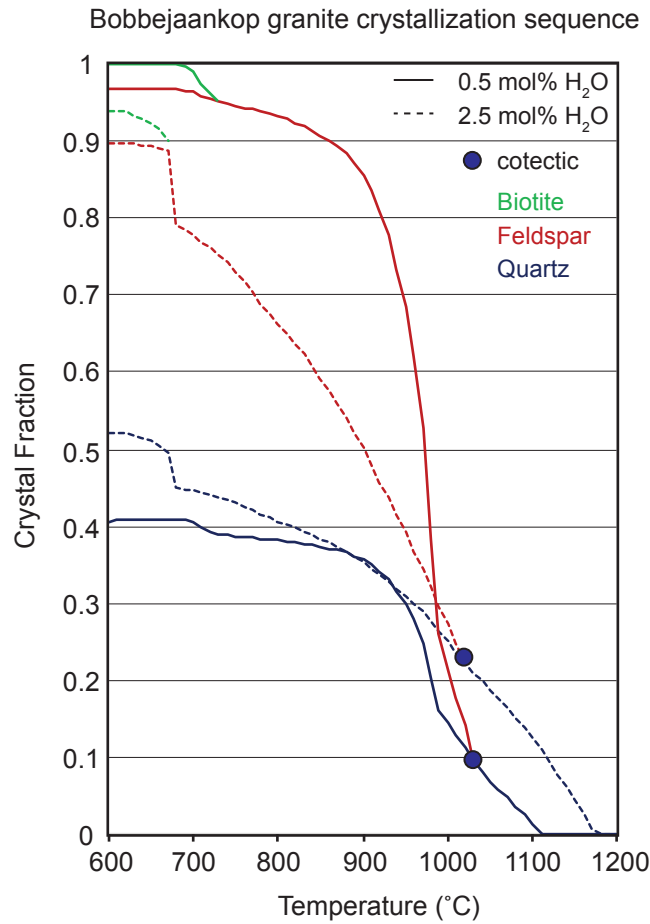


Fig. S1. Predicted crystallization sequence for the Bobbejaankop granite. Solid and dashed lines show the results of calculations made with 0.5 and 2.5 mol. % bulk H₂O, respectively. Phase equilibria calculations were modelled in the chemical system NCKFMASHTO with Theriak–Domino version 03.01.2012 (de Capitani & Brown, 1987; de Capitani & Petrakakis, 2010) using the Holland and Powell (1998) thermodynamic database updated to August 2004 (dataset 5.5). Activity models used were: melt, garnet, biotite and ilmenite (White et al., 2007), feldspar (Holland & Powell, 2003), and white mica (Coggon & Holland, 2002). The modelled bulk composition in oxide mol. % was: SiO₂ – 83.15; Al₂O₃ – 7.37; CaO – 1.03; MgO – 0.22; FeO – 1.32; K₂O – 3.69; Na₂O – 3.13; TiO₂ – 0.07.