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ORIENTATION DISTRIBUTIONS OF LOW SYMMETRY POLYPHASE MATERIALS USING NEUTRON DIFFRACTION DATA: APPLICATION TO A ROCK COMPOSED OF QUARTZ, BIOTITE AND FELDSPAR

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The crystallographic texture of the three main constituting phases of a granodioritic rock have been determined quantitatively, using neutron diffraction with a position sensitive detector. Intensities deconvoluted from the full profiles were used in the orientation distribution refinements using the WIMV algorithm. Satisfactory results were obtained for the three phases.

Keywords: Neutron diffraction; PSD; Polyphase; Quartz; Biotite; Feldspar