

SMP055-P22

Room: Convention Hall

Time: May 23 17:15-18:45

Andalusite replacing alkali-feldspar in pelitic migmatites from the Kerala Khondalite Belt, Southern India.

Mutsumi Kato^{1*}, Hyoue Mitsui¹, Kyuichi Kanagawa¹, Yoshikuni Hiroi¹, Satish - Kumar M.², Daniel - Dunkley³

¹Chiba University, ²Shizuoka University, ³National Institute of Polar Research

We report the occurrence of unusual lamellar albite within andalusite and quartz in pelitic migmatite from the Kerala Khondalite Belt (KKB), Southern India. Lamellar albite within andalusite and quartz seems to be continuous with albite-lamellae in surrounding alkali-feldspar, suggesting that the andalusite and quartz replaced alkali-feldspar remaining albite-lamellae intact. In addition, the andalusite and quartz are often associated with calcite, indicative of high XCO₂ - fluid compositions (XCO₂ = CO₂ / (H₂O + CO₂)). The origin of the association andalusite + quartz + albite + calcite and its significance on the metamorphic history of the KKB granulites will be discussed.

Keywords: andalusite, albite, alkali-feldspar, lamellae, Kerala Khondalite Belt