

## **PETROLOGICAL STUDIES ON KANIGIRI OPHIOLITE MELANGE, PRAKASAM DISTRICT, ANDHRA PRADESH, INDIA**

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### **Abstract**

This paper presents a detailed study of the petrological characteristics of Kanigiri Ophiolite Melange (KOM), occurring within the Nellore Schist Belt (NSB) at the Eastern Dharwar Craton (EDC) margin, India. The KOM is a small, N-S elongated, lenticular, exotic body, occurring near Kanigiri town and is tectonically juxtaposed against multiply deformed shallow marine succession of the Udayagiri Group. The Melange consists mostly rounded, epidotised fragments, mafic blocks (maximum of 1 meter) with pillow structures are widely distributed in a fine grained matrix of plagioclase, actinolite, epidote, calcite and tourmaline. The rounded blocks are surrounded by elongated, foliated, fine grained matrix with sharp contacts which indicates that the enclosing matrix had received most of the tectonic impact. The presence of pelagic chert and weakly foliated mafic matrix reflects low grade metamorphism. Two sets of folds and foliation in upper part and commonly present block-in-matrix structure with gabbroic blocks possibly represent an accretionary wedge.

*Keywords:* Petrology, Ophiolite Mélange, Kanigiri, Prakasam District