

*CHEMICAL WEATHERING OF SERPENTINITE AND Ni ENRICHMENT IN Fe OXIDE AT
SUKINDA AREA, JAJPUR DISTRICT, ORISSA, INDIA*

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Abstract

The chromiferous serpentinite of Sukinda block of Orissa, India, has undergone extensive lateritization with secondary nickel enrichment. The vertical profile comprises partially altered serpentinite, saprolite, laterite (in situ), and laterite (transported). Mineralogical and chemical investigations reveal that nickel is released from serpentine (nepouite) by chemical weathering and has partly been residually enriched in goethite along with supergene enrichment in goethite and Mn oxides. Apparent percentage change of elements indicates that nickel is enriched in the saprolite part of the vertical column along with iron and manganese.