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Compositional and isotopic heterogeneities in the Neo-Tethyan upper mantle recorded by coexisting Al-rich and Cr-rich chromitites in the Purang peridotite massif, SW Tibet (China)

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Abstract

The Purang harzburgite massif in SW Tibet (China) hosts abundant chrome ore deposits. Ores consist of 20 to > 95% modal chromian spinel (Cr-spinel) with mylonitic fabric in imbricate shaped pods. The composition of Cr-spinel in these ores ranges from Al-rich [$\text{Cr}\#_{sp}$ or $\text{Cr}/(\text{Cr} + \text{Al}) \times 100 = 47.60\text{-}57.56$] to Cr-rich ($\text{Cr}\#_{sp}$: 62.55-79.57). Bulk platinum-group element (PGE) contents of chromitites are also

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