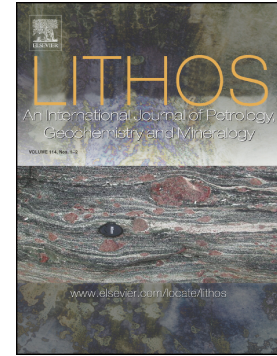


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**A Late Mesozoic short-lived shift from fluid-dominated to
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South China Block and its tectonic implications**

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ABSTRACT

Early Cretaceous northwest (NW)-trending dolerite and amphibole lamprophyre dykes exposed in NW Zhejiang Province provide a number of new insights into the nature of the subcontinental mantle on the northeast (NE) South China Block (SCB). These dykes have a high Al₂O₃ (14.04–17.89 wt. %) and K₂O (0.66–2.69 wt. %) contents but relatively low Na₂O (2.48–4.61 wt. %) and TiO₂ (1.33–2.79 wt. %) makeup alongside moderate K₂O/Na₂O ratios between 0.26 and 1.04. These amphibole lamprophyre dykes also have higher MgO, Cr, and Ni contents than those of comparable dolerites that have SiO₂ content ranging from 46.32 to 49.87 wt. %. The most striking feature of these intrusions is that they contain higher contents of Rb, Th,

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