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记载了早中生代壳幔演化的赤峰-凌源地质走廊

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摘要:

本文从内蒙赤峰至辽西凌源南北近200km的地质走廊中,选择早中生代(237~206Ma)形成不同深度、不同产状的8种火成岩作为研究对象,探讨早中生代华北克拉通北缘的地质演化。这8种岩石包括:火山岩、岩墙群和闪长岩、碱性花岗岩、碱性杂岩、镁铁质麻粒岩、堆晶岩及其捕获的地幔岩包体。研究表明,在底侵作用的背景下,华北早中生代发生了强烈的壳幔相互作用和岩石圈地幔富集过程,伴随早中生代大陆地壳的增生和深部结构的调整,地表相应出现快速的差异抬升和剥蚀。

英文摘要:

This paper presents a suit of igneous rocks in the SN-trending geological section with a length of about 200km from m Chifeng (Inner Mongolia) to Lingyuan (western Liaoning Province), to explore the Early Mesozoic geological evolution of the northern margin of North China Craton. The Early Mesozoic (237~206Ma) igneous rocks occur as dyke swarm, diorite, alkali granite, alkali complex, mafic granulite, cumulate and its mantle enclaves that were derived from distinct depths. It is concluded that the lithospheric mantle beneath North China initially strongly interacted with and enriched by crustal materials and that magma underplating induced rapid differential uplift and denudation of continental crust, associated with accretion of the Mesozoic crust and adjustment of the lithospheric structure.

关键词: [早中生代](#) [底侵作用](#) [壳幔相互作用](#) [富集地幔](#)

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