



耿元生, 万渝生, 沈其韩. 华北克拉通早前寒武纪基性火山作用与地壳增生[J]. 地质学报, 2002, 76(2): 199-208

华北克拉通早前寒武纪基性火山作用与地壳增生 [点此下载全文](#)

[耿元生](#) [万渝生](#) [沈其韩](#)

中国地质科学院地质研究所, 中国地质科学院地质研究所, 中国地质科学院地质研究所 北京, 100037, 北京,

基金项目: 国家自然科学基金项目(编号40072060, 49832030), 国土资源部科技项目(编号9501116)

DOI:

摘要点击次数: 143

全文下载次数: 108

摘要:

大量的年代学资料表明, 华北克拉通在早前寒武纪阶段有两个主要的基性火山活动时期, 一期发生在2.7Ga, 表示了二期强烈的地壳增生事件。太古宙末期基性火山岩的分布、地球化学特征、基性火山岩与其他岩石的关系和太古代时期, 在陆块之间基性火山岩的喷溢使地壳面积增大并把原本分离的小陆块拼合到一起, 造成地壳的增生。过地幔柱的方式进行, 在较均匀的地壳部分主要通过基性岩浆的垫托方式使地壳增厚, 部分岩浆侵位到地壳较浅部增生方式是相辅相成的, 它们的联合作用形成了太古宙末的华北古大陆。

关键词: [基性火山作用](#) [早前寒武纪](#) [地壳增生](#) [华北克拉通](#) [地幔柱](#)

Early Precambrian Basic Volcanism and Crustal Growth in the North China Craton [DOI](#)

GENG Yuansheng, WAN Yusheng, SHEN Qihan Institute of Geology, Chinese Academy of Geological Sciences,

Fund Project:

Abstract:

Chronological data show that two phases of basic volcanic activity appeared at about 2.7 Ga in the North China craton in the Early Precambrian and represented two extensive crustal growth events respectively. The distribution, geochemical feature of basic volcanic rocks, and relationship and associations between basic volcanic rocks and other rocks in the Neoproterozoic suggest that the outpouring of basic volcanic rocks between landmasses in the Neoproterozoic increased previously isolated mini-landmass together and caused the crustal growth. Within a landmass crustal growth was mainly thickened in the way of underplating of basic magma. In the homogeneous part of the crust, where some magma intruded into the shallow part of the earth's surface, crust was mainly thickened in the way of underplating of basic magma. These two growth, which supplemented each other, jointly resulted in the North China Palecontinent of the Early Precambrian.

Keywords: [basic volcanism](#) [Early Precambrian](#) [crustal growth](#) [North China Craton](#) [mantle plume](#)

[查看全文](#) [查看/发表评论](#) [下载PDF阅读器](#)