华北—江南地区中、新元古代地层格架的再认识

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引用本文：高林志,张传恒,刘鹏举,丁孝忠,王自强,张彦杰.2009.华北—江南地区中、新元古代地层格架的再认识[J].地球学报,30(4):433-446.

DOI：10.3975/cagsb.2009.04.04

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基金项目:中国地质调查局项目(1212010911071,1212010811033), 科技部基础工作专项(2006FY120300-1)和中国石化勘探准备项目(G0800-06-ZS-319)。

中文摘要:近年来,在华北古陆中、新元古代地层中不断获得新的锆石U-Pb年龄,为华北中、新元古代高精度年代地层框架的建立提供了重要的数据。当前国际前寒武纪地层精确对比的依据主要是高精度的同位素测年数据,因此,系统的锆石定年研究仍然是目前国际前寒武纪地层学研究的热点问题之一。本文报道蓟县剖面中元古代地层的基底迁西杂岩(群)锆石SHRIMP U-Pb年龄2534?9 Ma和串岭沟组中的辉绿岩(床)1638?14 Ma新的数据,结合大红峪组火山岩锆石U-Pb年龄1625.9?8.9 Ma和侵入到太古代地层中密云环斑花岗岩锆石U-Pb年龄1685?15 Ma,认为华北中、新元古代年代地层框架的优化和长城系盖层沉积的起始时间在1.75~1.70 Ga。在中国地层格架中,扬子板块和华夏板块之间有一明显呈带状分布的元古代轻微变质的沉积地层和一系列岩浆岩单元,被称之为“江南造山带”,这套地层的定位对于确定中国古大陆晚寒武纪地层构造格局极为重要,本文结合双桥山群的最新年龄和邻区的SHRIMP U-Pb年龄数据探讨其构造地层意义。

中文关键词:中国古陆 中,新元古界 江南造山带 SHRIMP U-Pb年龄

Recognition of Meso- and Neoproterozoic StratigraphicFramework in North and South China

Abstract:In recent years, more and more high quality zircon U-Pb ages have been obtained for the Meso- and Neoproterozoic strata in North China and South China continents. A high-grade chronostratigraphic framework has been set up on the basis of these dating data. A high quality chronostratigraphic system constitutes the foundation for the global Precambrian study and stratigraphic correlation. Recent geological studies are therefore focused on the systematic SHRIMP zircon dating. This paper discusses the high-grade chronostratigraphic framework of the Meso- and Neoproterozoic strata and the starting time of the cover bedding of the Changcheng System according to new SHRIMP zircon dating data from the Qianxi complex (2534?9 Ma) and the diabase of the Chuanlinggou Formation (1638?14 Ma), and deals with tectonostratigraphy of the Neoproterozoic chronostratigraphic framework on the southeastern margin of North China continent by using the new SHRIMP zircon dating data. In China’s stratigraphic framework, there is a distinguished zone of Proterozoic metamorphosed rocks and a series of mag-matic rocks in the intermediate zone between the Yangtze Block and the Cathaysia Block, which is called the “Ji-angnan orogenic belt”. Moreover, This stratigraphic positioning constitutes an important program for reconstruc-tion of the Late Precambrian tectonic framework and solution to the problem of positioning in the stratigraphic column. This paper also probes into the tectonic stratigraphic implications with new SHRIMP dating data from the Shuangqiaoshan Group in Jiangxi Province and an age data from the adjacent area in Anhui Province.

keywords:North China continent Meso- and Neoproterozoic Jiangnan orogen SHRIMP U-Pb dating

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