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天津地质矿产研究所;中国科学院地质与地球物理研究所;中国科学院地质与地球物理研究所;内蒙古自治区第九调查研究所;天津地质矿产研究所;吉林省第二地质调查所

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摘要:

出露于华北陆块东北缘的张三沟岩组为一套变质火山—沉积岩系, 前人根据变质程度和地层对比将其划为U—Pb年代学研究, 获得 $2517 \pm 9$  Ma、 $2518 \pm 7$  Ma 和 $2534 \pm 26$  Ma原岩年龄,  $2439 \pm 24$  Ma、 $2464 \pm 73$  Ma和 $2433 \pm 7$  Ma层形成于新太古代晚期, 变质时代在新太古代末—古元古代初。结合区域资料, 其变质年龄可能代表了古龙岗陆(如佳木斯陆块)碰撞造山的时代, 表明华北克拉通在新太古代末—古元古代初期经历过一次重要的克拉通化。

关键词: [SHRIMP年代学](#) [张三沟岩组](#) [华北陆块东北缘](#) [吉林](#)

Zircon SHRIMP Geochronology of the Zhangsangou Formation-Complex in the Northeastern Block, and its Geological Significance [Download Fulltext](#)

[LI Chengdong](#) [ZHANG Fuqin](#) [MIAO Laicheng](#) [DU Yulin](#) [HUA Yanqiu](#) [XU Yawen](#) [Kang Shumei](#)

Tian Jin Institute of Geology and Mineral Resources;Institute of Geology and Geophysics, Chinese Academy of Geology and Geophysics, Chinese Academy of Sciences;Ninth Geological Prospecting Institute of Geological Prospecting Institute of Regional Geology and Miner Resources Survey;Tian Jin Institute of Geology and Mineral Resources Survey

Fund Project:

Abstract:

Zhangsangou Formation-Complex is located in the northeastern margin of North China Block, and is considered to be Paleoproterozoic metamorphic volcanic-sedimentary sequences, mainly according to regional stratigraphic correlation. Based on our field investigation and SHRIMP dating, three samples from the Zhangsangou Formation-Complex have yielded protolith age of  $2517 \pm 9$  Ma,  $2518 \pm 7$  Ma,  $2534 \pm 26$  Ma and metamorphic ages of  $2439 \pm 24$  Ma,  $2464 \pm 73$  Ma and  $2433 \pm 7$  Ma, respectively, indicating that it formed in late Neoproterozoic and reworked in late Paleoproterozoic by metamorphism. In combination with regional geological data, we show that it is related to a collisional tectonism between ancient Longgang's continental block and other continental blocks. This indicates that North China Block developed a cratonization in late Neoproterozoic-early Paleoproterozoic.

Keywords: [SHRIMP geochronology](#) [Zhangsangou Formation-Complex](#) [northeastern margin of North China](#)

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