

## 冀西北晚侏罗世火山-沉积盆地的性质及构造环境

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**摘要:** 冀西北晚侏罗世髫髻山组和后城组火山岩的岩石学-地球化学分析结果揭示, 晚侏罗世的火山岩主要为来自富集地幔的钾玄岩系列和部分壳源高钾酸性岩石组合。通过对髫髻山组之上的后城组的地层层序和沉积构造研究, 认为这套河-湖相沉积形成在伸展背景下的断陷盆地之中, 下部由粗粒冲积扇和辫状河体系组成, 上部则为河湖相沉积物, 并出现火山岩夹层, 从而在总体上表现为一个向上变细的沉积层序。髫髻山组到后城组的层序反映出从断陷盆地到拗陷盆地的发展过程。此外, 后城组形成后所发生的区域性挤压作用导致了这期伸展盆地的反转。

**关键词:** 冀西北; 晚侏罗世; 断陷盆地; 钾玄岩系列; 伸展构造

中图分类号: P53; P534. 52

文献标识码: A

文章编号: 1671-2552(2003)12-0751-11

Nature and tectonic environment of Late Jurassic volcanic-sedimentary basins in northwestern Hebei Province

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**Abstract:** Petrological and geochemical studies of Late Jurassic volcanic rocks in the Tiaojishan and Houcheng Formations in northwestern Hebei Province reveal that Late Jurassic volcanic rocks are composed mainly of a shoshonite series derived from the enriched mantle, and some high-potassium acidic rocks of crustal affinity. Overlying the Tiaojishan Formation, the Houcheng Formation consists primarily of fluvio-lacustrine rock associations and is believed to have deposited in rifted basins in an extensional setting. It is marked by coarse-grained sediments of alluvial fans and braided rivers in the lower part and fluvio-lacustrine fine-grained sediments intercalated with volcanic rocks in the upper part, thus generally exhibiting an upward-fining sequence. The stratigraphic and sedimentary evolution from the Tiaojishan to Houcheng Formations reflects the transition from a down-faulted basin to a downwarped basin. Regional compression occurring after the deposition of the Houcheng Formation led to the reversal of the extensional basin of this stage.

**Key words:** northwestern Hebei; Late Jurassic; down-faulted basin; shoshonite series; extensional tectonics