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鄂尔多斯盆地东缘边界带构造样式及其区域构造意义 [点此下载全文](#)

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摘要：

鄂尔多斯盆地东缘是一条燕山运动期形成的、复杂的构造——地貌边界带,由离石断裂和晋陕挠褶带组成。基于野外观察和构造测量资料,本文论述了该边界带分段特征及断裂构造样式,利用断层滑动矢量资料反演古构造应力方向,建立了侏罗纪—白垩纪构造应力场演化序列。结果表明,该边界带发育3类断裂构造样式:反冲断裂、上盘断坡褶皱和盖层滑脱。根据地表构造样式推断,该边界带构造组成了山西断隆深部由东向西扩展的断坪—断坡式拆离系统的前缘反冲构造或上盘断坡。沿边界带发育挤压破碎带和构造透镜体。断层运动学分析结果展示了多向挤压应力作用,挤压应力方向为W—E、NW—SE和NE—SW向。该边界带的分段构造样式和应力作用方向记录了晚侏罗世燕山运动时期华北地区陆内挤压变形特征,为研究燕山运动时期古太平洋板块向东亚大陆俯冲产生的远程效应和华北陆内构造变形动力学提供重要的构造地质学依据。

关键词：[鄂尔多斯盆地](#) [构造样式](#) [构造应力场](#) [反冲构造](#) [上盘断坡褶皱](#) [盖层滑脱](#)

Structural Styles of the Eastern Boundary Zone of the Ordos Basin and Its Regional Tectonic Significance [Download Fulltext](#)

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Abstract:

The eastern boundary zone of the Ordos Basin is a complicated tectono-morphological belt, which developed during the Yanshanian tectonism and is made up of the Lishi fault and the Jin-Shan fold belt. This paper describes segmentation feature and fault structural styles of this boundary zone. Paleo-stresses have been determined using measured fault slip vector data and Jurassic-Cretaceous stress evolution has been established. Three structural styles were identified: backthrusts, hang wall ramp fold and cover rock decollement. It is inferred from this analysis that the eastern boundary zone of the Ordos Basin consists of backthrust and/or hang wall ramp along the frontal zone of a westward propagating flat-ramp style system, which may have developed beneath the Shanxi faulted uplift. Fault breccia and tectonic lenticles well develop along the boundary zone. Results of fault kinematic analysis show multiple compressions with the orientations varying from NW-SE to nearly W-E, and to NE-SW. Segmented structural styles and compressional stress directions of this boundary zone recorded intracontinental deformation pattern during late Jurassic period in North China and provided important constraints of structural geology on the study of geodynamics of this deformation and far-field effects produced by subduction of the Paleo-Pacific Plate beneath the eastern Asian continent.

Keywords:[Ordos basin](#) [structural styles](#) [tectonic stress](#) [backthrust](#) [hang wall ramp](#) [cover rock decollement](#)

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