岩石学报
ACTA PETROLOGICA SINICA

许承武,李忠,韩登林. 2015. 鲁西隆起北侧博兴洼陷新生界碎屑重矿物的物源示踪分析. 岩石学报, 31(9): 2737-2744

鲁西隆起北侧博兴洼陷新生界碎屑重矿物的物源示踪分析

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基金项目：本文受国家自然科学基金项目(40672083)资助.

摘要：

利用碎屑重矿物对鲁西隆起北侧博兴洼陷的新生界沉积岩开展了碎屑物源示踪分析。通过研究区重矿物聚类分析、源区岩石类型分析并结合薄片和探针分析结果,发现研究区源岩类型多样,既有以绿帘石为代表的亲鲁西变质岩,也有以富含石榴石为代表的亲苏鲁变质岩,同时也有火山岩和沉积岩;从古近纪沙河街组三段沉积期开始源岩中亲苏鲁变质岩不断减少,亲鲁西变质岩和基性火成岩不断增加,至新近纪明化镇组沉积期洼陷内几乎富含石榴石类型源岩,表明博兴洼陷自古近纪以来一直存在来自鲁西、胶东(超高压带)的物源记录,从古近纪沙河街组三段沉积期开始,胶东的物源供给逐渐减少,而到明化镇组沉积时由于鲁西的快速隆升,胶东与博兴洼陷的物源联系被切断。

英文摘要：

Cluster analysis, rock thin section and microprobe analysis of heavy minerals, collected from Boxing sag, were used for discussion on source tracing in this study. Four types of source rocks, which were metamorphic rocks from the west Shandong rise, metamorphic rocks from the Sulu metamorphic belt, volcanic rocks and sedimentary rocks, were found in Boxing sag. After Sha-3 Member deposition period, metamorphic source rocks represented by epidote from the west Shandong rise increased and metamorphic source rocks represented by garnet from the Sulu metamorphic belt decreased gradually. Since Minghuazhen Member deposition period, metamorphic source rocks from the Sulu metamorphic belt were scarcely founded in Boxing sag. These evidences suggest that the west Shandong rise uplifted rapidly at Minghuazhen Member deposition period and the contact between eastern Shandong and Boxing sag was cut off by then.

关键词：碎屑重矿物 物源 苏鲁高压变质带 博兴洼陷 鲁西隆起

投稿时间：2013-01-10 修订日期：2015-01-04

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黔ICP备07002071号-2
主办单位：中国矿物岩石地球化学学会
印刷版(Print): ISSN 1000-0569 网络版（Online）: ISSN 2095-8927
单位地址：北京9825信箱/北京朝阳区北土城西路19号
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