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鄂尔多斯盆地西峰油田原油地球化学特征及其成因 [点此下载全文](#)

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摘要:

通过对鄂尔多斯盆地西峰油田原油进行系统地采样和高分辨率的GC-MS、IRMS分析,研究了原油的生物标志化合物和碳同位素组成特征,并且进行了油源对比,探讨了其成因。研究资料指示了所研究原油属于同一成因类型:原油有机母质为菌藻类和高等植物,特别是高等植物为原油的形成作出了贡献;原油形成于弱还原和淡水或微咸水环境;原油均为成熟原油;原油地球化学特征和上三叠统延长组长7油层组具有亲缘关系,反映了原油主要来源于长7油层组。这些研究结果为盆地的石油勘探提供了科学依据。

关键词: [鄂尔多斯盆地](#) [原油](#) [生物标志化合物](#) [组成和分布特征](#) [碳同位素](#) [成因](#)

Geochemistry and Genesis of Crude Oils of the Xifeng Oilfield in the Ordos Basin [Download Fulltext](#)

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Abstract:

Crude oil samples of the Xifeng oilfield in the Ordos basin were collected systematically and analyzed by means of high-resolution GC-MS and IRMS. In this paper, biomarkers and carbon isotopic compositions in crude oils were studied, and the oil/source correlation and their genesis were discussed. The data indicate that the studied oils are of the same genetic type. The oil-forming matrixes are algae and higher plants, especially with an important contribution of higher plants to the formation. The crude oils were formed under weak reducing and fresh water environments. The crude oils are mature. The geochemical characteristics of crude oils are closely correlated to those of the Upper Triassic Chang-7 subsection, reflecting that crude oils were mainly originated from the Chang-7 oil bed group.

Keywords: [Ordos basin](#) [crude oil](#) [biomarker](#) [composition and distribution](#) [carbon isotope](#) [genesis](#)

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