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## Hydrocarbon Charge History of Zhahaquan Oilfield, Western Qaidam Basin

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The Zhahaquan area is a typical tight-oil exploration area in the western Qaidam Basin. However, due to the late study of the tight-oil, research of the region is less, so that the oil accumulation evolution of Zhahaquan area is unclear. In this paper, the dynamic evolution and accumulation of oil and gas is studied deeply by the analysis of reservoir quantitative grain fluorescence (QGF), fluid inclusions petrography and micro-temperature measurement, as well as the burial and thermal history of this area. The results indicate that: (1) the QGF index of Zhahaquan area is mainly between 2-6 and the peak of the spectrum is around 400nm, which indicates that the charging oil is mainly light to medium crude oil; (2) two types of hydrocarbon fluid inclusions are mainly developed in this area, oil inclusions with yellow-yellow green fluorescence and oil inclusions with bluefluorescence, while the former is more common; (3) based on the analysis of the homogenization temperature of inclusions and the burial and thermal history, it is concluded that there are two stages of hydrocarbon charging, of which the first charging time was around 13Ma, which corresponds to the end of the deposition of Upper Ganchaigou formation, the second charging time was about 6Ma, which corresponds to the early deposition of Shizigou formation.

### Biography

Wang Lin gained her bachelor degree in Nanjing university, China. And majored in geochemistry. Now she has her expertise in petroleum resource engineering and does her research in research institute of petroleum exploration & development, petrochina. Her work mainly focus on oil and gas accumulation of Qaidam basin, China, based on the analysis of fluid inclusion, quantitative grain fluorescence, laser Raman spectroscopy, et al.