

## 芒崖凹陷干旱气候背景下网状河流沉积体系及演化

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中文摘要:通过对柴达木盆地芒崖凹陷上新统露头的结构单元分析和对钻井剖面上砂岩、泥岩的空间分布关系及岩相转换的Markov链模式等方面的研究,得出研究区中—上统是网状河流沉积体系并在上新统转化为瓣状河流沉积体系这一新认识。孢粉化石资料、深干裂以及钙质结核等指示网状河流发育于干旱气候背景下。网状河流向瓣状河流的演化盆地基底的沉降速率及与气候密切相关的植被覆盖程度等因素的控制。

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## Anastomosed Fluvial Depositional System Formed in Arid Climate Background and Its Evolution, Mangya Depression

**Abstract:**The sediments of Pliocene Series at Mangya Depression of Qinghai Province were deposited by fluvial sedimentation according to the outcrop data and Markov Chain analysis of lithofacies transitions of drilled well cores. According to the analysis of lithofacies and architectural-element of this Pliocene Series, anastomosed depositional system exists in the lower-middle Pliocene Series and braided depositional system exists in upper Pliocene Series. The sporomorphs, deep desiccation crack and calcareous concretion all indicate that the anastomosing fluvial system formed and developed in warmer arid climate which suitable for plants to grow exuberantly. The evolution from anastomosing to braided fluvial systems was influenced mainly by the subsidence rate of Basin basement, colder arid climate and distinct decrease of vegetation.