

## 罗布泊盐湖钾盐矿床分布规律及控制因素分析

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中文摘要:罗布泊盐湖位于塔里木盆地东部,是世界最大第四纪干盐湖之一。自中新世以来,罗布泊北部受到新构造运动影响,一方面,发生抬升活动;另一方面,产生地堑式断裂及次级盆地(凹地)。调查发现罗布泊的次级凹地及断陷带内蕴藏有钾盐矿床,主要是卤水钾盐矿床;这些钾盐矿床(或成钾凹地)的分布具有方向性和一定等间距性。罗布泊卤水钾矿,除在罗北凹地外,在其外围的较小凹地内也有分布,表现为“卫星式”分布模式;而在地堑式断裂带延伸的范围区内也出现卤水,其分布表现为“含水墙”状模式。固体钾盐沉积于罗北凹地中心区及外围断陷带内,其形态与展布方向也受到地堑式断裂控制,其沉积模式有“浓缩中心式”和“构造洼地式”两种,前者钾盐沉积区面积均较大,钾矿面积占凹地面积近1/4,而后者沉积区面积很小,钾盐沉积基本分布于整个洼地内;固体钾盐分布区形态主要呈“条带状”模式,其长宽比值平均为3.58。除了构造应力作用外,罗布泊凹陷的几何形态、面积与补给来源方向等亦对罗布泊钾盐矿床的分布有一定影响作用。掌握罗布泊钾盐矿床的分布规律及控制因素,对于古代钾盐勘查具有重要参考价值。

中文关键词:罗布泊 盐湖 钾盐 分布模式

## The Probing of Regularity and Controlling Factors of Potash Deposits Distribution in Lop Nur Salt Lake, Xinjiang

**Abstract:**Lop Nur Salt Lake is located in the eastern part of Tarim Basin,Xinjiang in northwest of China, and is one of the largest playas in the World during Quaternary period. Since middle Pleistocene epoch, being influenced by neotectonic activities, the most parts of the northern of Lop Nur Lake had started to rise, and the mean while the graben-faults and hollows occurred in some parts of the northern area. The investigations show the hollows and faulting belts hold potash deposits, most being brine potash deposits. These potash deposits are distributed according to some oriental and iso-distance interval. The distribution pattern of potash deposits may be called “sat-ellite type”, for that Luobei hollow potash deposit is the largest one, and there are some small ones which are distributed around it. In the graben-faulting belts brine commonly occur vertically and horizontally, this is called “water-bearing wall” model. The potash-mineral depositing areas are in the inner of hollows and faulting belts, their shapes and trends are controlled by the graben-faults. The solid potash deposition may be divided into two kinds of models, one is the “evaporating and concentrating type” in that the area of potash minerals distribution occupies quarter of the hollow in area, and the other is “tectonic hollow type” in that the potash may nearly occupy the whole late tectonic-hollow area. The shapes of the potash-mineral depositing areas are usually strip, or called “ore strip” model, the ratios of length vs. width are basically stable, averagely 3.58. Except for the tectonic stress, the shape and area of Lop Nur Lake and river-supplying directions also play an important effect on the distribution of potash deposits. Understanding of the regularity and controlling factors of potash deposits distribution is significant for exploring of the solid potash deposits buried in ancient strata.


**keywords:**[Lop Nur](#) [salt lake](#) [potash deposits](#) [distribution models](#)

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