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贵州凯里梁山组高硫煤中稀土元素的富集及其地质成因

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摘要：

基于电感耦合等离子质谱、X射线衍射等测试结果，分析了贵州省东部凯里地区下二叠统梁山组高硫煤中
土元素在煤中赋存方式和地质成因。结果表明：凯里煤中稀土元素含量远高于中国煤、美国煤和世界煤中稀土元
对富集，煤层中稀土元素的物质来源具有一致性。研究认为：煤中稀土元素的赋存与黄铁矿有关，也存在一部分
惰质组和壳质组中的可能性；相对较弱的泥炭沼泽水动力条件以及偏碱性还原的环境更有利于稀土元素在煤中的
造成煤中富硫以及利于稀土元素富集环境条件发育的一个重要原因。

关键词：高硫煤 稀土元素 地球化学 赋存状态

Enrichment and Geological Origin of Rare Earth Elements in High Sulfur Coal of Lian Kaili, Guizhou, China

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Fund Project:

Abstract:

Based on the testing data by the inductively coupled plasma mass spectrometry (ICP-MS), X-r on, the distribution, occurrence and geological controls of the rare earth elements (REEs) in the Lower Permian Liangshan formation from Kaili, eastern Guizhou was investigated. The results showe Kaili's coal seam was evidently higher than the average contents of REEs in Chinese, America as and the light REEs (LREEs) were comparatively rich, which indicated that the source of those in t It was suggested that the some of REEs in the coal seam might occur in the pyrite, and another wi be hosted in the inertinite and exinite. The peat bog with the weaker water dynamics, subalkaline favor of the REEs enrichment in the coal seam. The effect of the sea water to the peat bog was on the occurrence of the sulfur- and REEs-accumulated environment in the coal.

Keywords:high sulfur coal REEs occurrence geological control