

论文

中国典型高砷煤中砷与煤质特征之间的关系及砷的赋存状态

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摘要:

根据《中国煤种资源数据库》中有关煤中砷含量分布数据的统计结果, 结合中国煤中砷含量分布等值线图及高砷煤矿的地区分布, 总结了高砷煤的地理分布特征, 即中国高砷煤分布范围较广, 但以点状分布为主, 大范围的高砷煤区较少。通过对中国典型高砷煤中砷与煤质特性的相关关系研究以及对其赋存状态的探讨, 得出: 高砷煤以低阶煤为主, 其煤中砷与灰分、硫分、灰成分关系复杂; 典型高砷煤中砷与硫分关系密切, 浮沉试验不同密度级产物中砷含量与全硫含量变化趋势非常一致; 典型高砷煤中砷主要分布于以单独颗粒状分布的黄铁矿中, 而以细粒浸染状产出的黄铁矿含量较低。

关键词: 砷; 煤质特征; 赋存状态; 等值线图

Discussion on the relationship between the content of Arsenic and the coal quality characteristic and the Arsenic modes of occurrence in Chinese high Arsenic coal

Abstract:

Based on the statistic results of the related data of Arsenic in coal samples from 'Chinese coal resource database', the contours of Arsenic content in coals and the geography of high Arsenic diggings in China, the dependency relation of Arsenic in Chinese high Arsenic coals with the coal quality was analyzed, and the concentration distribution of Arsenic in Chinese high Arsenic coals was generalized in the dissertation. The distribution of high As is wideranging with spot distribution. The correlation analysis between the distribution of Arsenic of Chinese high Arsenic coal, coal quality characteristic and the Arsenic modes of occurrence in Chinese high Arsenic coal were discussed, some conclusions were drawn. The high Arsenic coal is primary with the lower grade coal. The relationship between Arsenic content and ash content, total sulfur content, coal ash in high Arsenic coal are complicated. There is an obvious correlation between the content of Arsenic and total sulfur content in Chinese high Arsenic coal, the varied tendency of the content of Arsenic and total sulfur content in different density of floatsink test is concordance. The element of Arsenic in high As mainly distribute in pyrite sulfur with single graininess, the content of pyrite sulfur with fine impregnation is relatively lower.

Keywords: Arsenic; coal quality characteristic; mode of occurrence; contour

收稿日期 2011-02-18 修回日期 网络版发布日期 2012-02-21

DOI:

基金项目:

质检公益性作业专项基金资助项目 (10-190); 科研院所社会公益专项基金资助 (2005DIB3J211)

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