Research on Occurrence of Vanadium in Stone Coal Deposit at Loufanggou Area, Shangluo City, Shanxi Province, China

WANG Li, ZHANG Qing-peng, SUN Wei

(*School of Minerals Processing and Bioengineering, Central South University, Changsha* 410083, *China*)

Abstract: In this research, stone coal deposit in Loufanggou area, Shangluo City, Shanxi Province, China was studied by using chemical analysis, X-ray diffraction, phase analysis, as well as MLA analysis in order to find out the occurrence of vanadium in the stone coal. Results show that most of vanadium exists in roscoelite and muscovite in forms of isomorphism, and small amount of vanadium exists in V-Fe oxide mineral, V-Ti oxide mineral and garnet. There are only a small amount of roscoelite with high vanadium grade and bigger grain size, while most of vanadium minerals exist in very small size, which is difficult for recovery by flotation.

Keywords: stone coal bearing vanadium; technological mineralogy; MLA; occurrence of vanadium