

Rapid Batch Characterization of Coal Utilization By-products

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ABSTRACT

Many leaching methods have been used for various purposes by research groups, industries and regulators, but there is still a need for a simple but comprehensive approach to leaching coal utilization by-products (CUB) and other granular materials. A serial batch characterization method has been developed at the National Energy Technology Laboratory that can be completed in 2-3 days to serve as a rapid screening tool. The procedure provides an indication of metals release under varying pH conditions and increasing liquid to solid ratio. The method was applied to 8 fly ashes; leachates were analyzed for 30 elements. Data is presented on leachability relative to elemental content in the ashes, and a measure of method reproducibility is given.

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