

Leaching Kinetics of Trace Elements for Ammoniated Coal Ash

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ABSTRACT

The leaching kinetics of trace elements for ammoniated coal ash is important for the assessment of the potential environmental impact of ash disposal and utilization. This study focused on the release rate of several trace elements with the presence of ammonia for a power plant fly ash. Seven representative trace elements including 4 cations, Ni, Cu, Pb and Cd, and three anions As, Cr, and Se were selected for the investigation. A laboratory batch dynamic leaching procedure was established to characterize the release rate of trace element under different pH and ammonia concentrations. The effect of ammonia on metal leaching kinetics are analyzed.