

Arsenic in sediments in Bangladesh and Inner Mongolia and possible model for release of arsenic into groundwater

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Arsenic groundwater pollution is recently becoming serious problem in the world: e.g., Bangladesh and Inner Mongolia cases in Asia. Fundamental data on minerals or related materials, and their compositions were examined. Mode of occurrences of arsenic in 4 divided parts of Bangladesh specimens were examined. The four divided parts are 1) adsorbed arsenic and arsenic in carbonate phases, 2) arsenic in oxide phases, 3) arsenic in organic matter and 4) arsenic in some silicate and sulfide phases. More arsenic was contained in 3) and 4) and then in 2). Almost no arsenic was contained in 1). Based on all the data obtained and previously reported, possible mechanisms for arsenic discharge into groundwater were discussed.