

マグネシウム系吸着材によるヒ素除去に及ぼすpHの影響

Effects of pH on Arsenic Removal Using Magnesium-Based Adsorbents

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In some areas of developing countries, health damage caused by arsenic contained in groundwater used as drinking water has been a serious problem. In order to utilize the ground water as safe drinking water without health risk, it is necessary to remove arsenic. In our previous studies, the arsenic removal tests using several kinds of magnesium compounds (chloride, sulfide, oxide, hydroxide, and carbonate) were carried out and the results clarified that both the oxide and the hydroxide have particularly high arsenic removal performance among the magnesium compounds. However, the effects of pH on the arsenic removal performance of the magnesium compounds have not been sufficiently examined. Therefore, in this study, the arsenic removal behaviors of both magnesium oxide and hydroxide were estimated using the arsenic contaminated water with various pH (pH3 to 12).

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