

Chemical forms of heavy metals after lime treatment at acid mine drainage

Daisuke Sato[1], Kazue Tazaki[2], Tsutomu Sato[3]

[1] Life and Earth Sci., Kanazawa Univ, [2] Dept. Earth Sci., Kanazawa Univ., [3] Global Environ. Sci. Engineer., Kanazawa Univ.

Chemical forms of heavy metals after lime treatment at Ogoya Mine in Ishikawa prefecture, Japan, have been investigated for assessing stability of heavy metals. Neutralizing coagulation treatment using slaked lime (calcium hydroxides: $\text{Ca}(\text{OH})_2$), is still on going for immobilization of the heavy metals. Core samples have been obtained from disposal pond into which treated wastewater flows. The mineralogical and chemical compositions of the samples have been analyzed by XRD and ED-XRF. Sediment components were observed by SEM. The results revealed that the constituent minerals of the samples change with depth. Especially, spherical particles have high content of heavy metals. Most of heavy metals there for exist in the particles not in calciumcarbonates and in hydroxides.

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