

## **A survey report of an artisanal mining site in Mongolia**

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### **Abstract**

In recent years, the number of artisanal miners is increasing in the world. Artisanal miners are the people who recover minerals with rudimentary tools for the livelihood. They are usually jobless and deprived and thus their mining is a subsistence activity and is often done clandestinely. One of the common products in such mining is gold, and artisanal miners usually utilize mercury to recover gold from ore by amalgamation method. As mercury is diffused easily to the surrounding environment and is also absorbed by miners/their families, regular monitoring of mercury is necessary in addition to the environmental education of miners.

In Mongolia, nearly 50,000 people are digging gold-bearing rocks all over the nation and mercury

contamination came to a social concern these days. Thus the authors conducted PIXE analysis for hairs of Mongolian miners at Nishina Memorial Cyclotron Center of Japan Radioisotope Association. In spite of miners' smelting practice using amalgamation method, their mercury level for hair was very low. One of the reason for such low level of mercury in their hairs might be the short duration of mining: the samples were collected one year later since small-scale mining started in Mongolia. From now on, proper way to handle mercury must be studied by mines. In addition, miners have to comply with the industry-and-trade minister's order No. 33 which allow each person to mine the land only for a year.