

# SHIBAYAMA LAB.

## [Mineral Processing and Recycling]

Integrated Research Center for Sustainable Energy and Materials

Mineral Processing Engineering

Graduate School of International Resource Science, Akita University

<http://www.gipc.akita-u.ac.jp/~shigenshori-lab/>

### Development of Advanced Mineral Processing Technology and Recycling Process

Our laboratory is developing a treatment process for unexploited resources that are impure and/or low grade, and valuable metals present in the electronic wastes. The typical research works are as follows.

#### Development of Advanced Mineral Processing Technology of Unutilized Mineral Resources

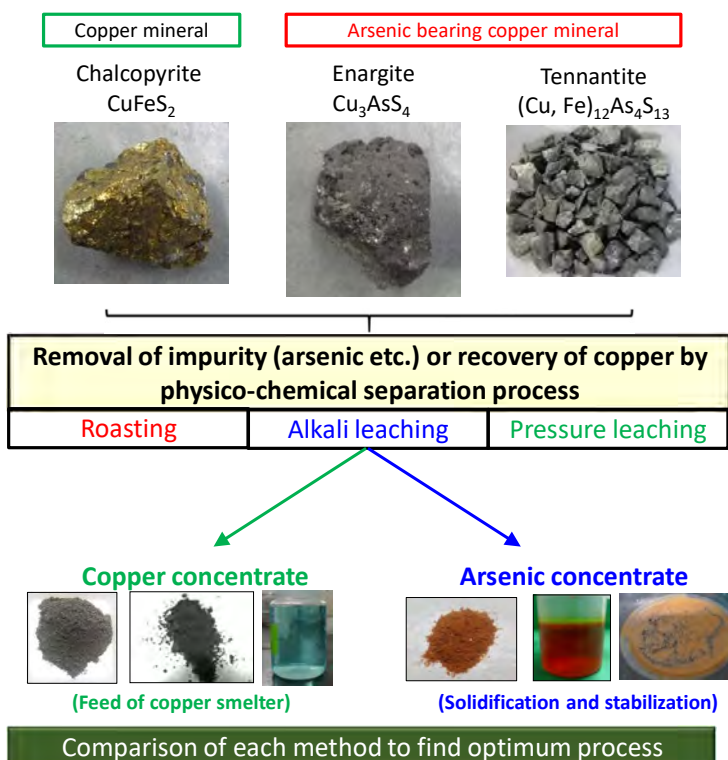
- ◆ Treatment process of impurity bearing copper mineral
- ◆ Metal recovery form low-grade ore and mine tailing

#### Development of Precious Metal Extraction Process from Wasted Materials

- ◆ Precious metal leaching process from printed circuit board by halogen leaching
- ◆ Development of novel extractant for selective extraction of precious metal

#### Development of Advanced Mineral Processing Technology for Utilization of Mineral Resources

Development of arsenic and antimony removal process to produce clean copper concentrate



#### Development of Precious Metal Extraction Process from Wasted Materials

Development of precious metal extraction process to recycle precious metal from wasted materials

