

# SHIBAYAMA LAB.

## [Mineral Processing and Recycling]

Integrated Research Center for Sustainable Energy and Materials

Mineral Processing Engineering

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

Our laboratory is investigating development of treatment process of unutilized resources which are impurity containing and/or low grade and valuable metals contain electronic waste. The typical research work introduce 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. etc

#### 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. etc.

#### 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

