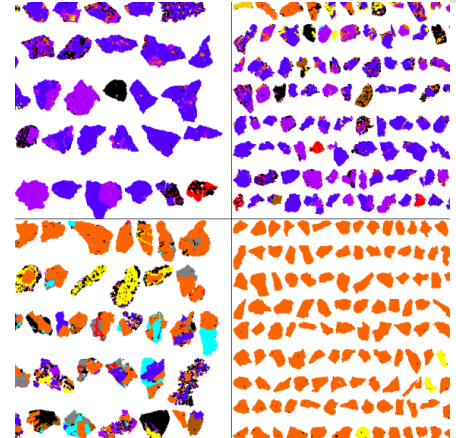


Tescan TIMA

for Mineral Processing

The Automated Mineralogy solution for particle-by-particle measurement of mineralogy, grind size, liberation, and separation



Key benefits

Understand complex mineral relationships – at the size-by-size and particle by particle level – and optimize processing plant performance using the built-in metallurgical distribution analysis system

Collect high speed, detailed measurements on more types of samples, with better mineral chemical resolution, increased sensitivity for low abundance elements and good sampling statistics using the 4 EDS detectors and TIMA's unique spectral summing algorithm

Maintain continuous operation, rapid turnaround with a minimal number of laboratory operators using the options for remote, multi-user off-line analysis with automation software to support unattended operation

Analyze base metals, precious metals, and other commodities using built-in quantification and the comprehensive mineral identification, mineral composition, and grain/particle textural classification with user-defined scripts

Process samples in large batches and maintain high efficiency data collection using continuous unattended operation

Free instrument time for interactive microanalysis or automated measurement and by taking advantage of TIMA's offline data analysis and reporting capability

Applications

Recovery: discover the proportion of recoverable losses, the proportions of hazardous elements (e.g. arsenic and antimony), and diluents in concentrates

Flotation: differentiate the recovery of multiple minerals containing the same element e.g. copper in chalcopyrite, chalcocite, and covellite

Comminution: predict target grind size in future feed ores to optimize mineral liberation for flotation and leaching

Leaching: quantify the degree of carbonaceous minerals to predict the degree of "preg-robbing"

Smelting: plan concentrates with similar smelting properties

Geometallurgy: link geology and metallurgy for optimal mine planning and mineral processing

Plant surveys: add detailed mineralogical and liberation values to mass flow and chemical assay data

Plant monitoring: analyze daily, weekly, and monthly plant samples with multiple size fractions from multiple streams

Metallurgical modelling: populate your models with customized particle-by-particle data (morphological, mineralogical and chemical composition, liberation degree, etc...)