

HAZEN ADDS NEW QEMSCAN TO ITS QUANTITATIVE MINERALOGY TOOL KIT



Hazen's new QEMSCAN facility at the Huffman Hazen site (Golden, Colorado) is operational. The system is based on a FEI Quanta 650F scanning electron microscope (SEM), with a large specimen chamber, two Bruker XFlash 6 | 30 high-speed energy dispersive x-ray spectrometers (EDS), and state-of-the-art automated quantitative image analysis and microanalysis software.

The QEMSCAN field emission gun has several advantages over the traditional tungsten source for certain applications, namely improved detection of micron-scale bright phases and enhanced imaging of submicron rock and ore textures, such as porosity and fractures.

The ability to operate the system in the QEMSCAN mode under different beam accelerating voltage settings allows for improved spatial resolution, depending on the application.

Featuring three imaging modes—high vacuum, low vacuum, and ESEM; the SEM accommodates a wide range of samples. Low vacuum and ESEM capability enables charge-free imaging and analysis of non-conductive and/or hydrated specimens.

Quantitative Mineral and Phase Analysis Capabilities

QEMSCAN's capabilities include the following:

- Imaging in SE and BSE modes
- Area mapping in SE, BSE, and QEMSCAN modes
- Particle-by-particle analysis
- Automated mineral and phase classification
- Mineral and phase abundances
- Elemental deportment
- Mineral, particle, and rock texture
- Mineral association
- Mineral liberation
- Size, shape, and density of particles and mineral grains
- Theoretical grade-recovery curves

Detailed costing for individual analysis will be provided on a case-by-case basis.

For more information, contact Dr. Hanna Horsch by e-mail at horschh@hazenresearch.com, or by telephone at (303) 278-4455.

More information about the QEMSCAN facility is available on Hazen's website at the following address:

<http://www.hazenresearch.com/capabilities/process-mineralogy/qemscan>