



Analytical Services Group specializes in material characterization and provides analytical solutions to all aspects of your business thru custom analytical services.

State-of-the-art instrumentation, well-equipped facilities, and leading-edge technical personnel have been specifically assembled for the analysis and investigation of materials. For more than 40 years, analytical and microscopy specialties have been developed to characterize materials from a variety of industries.

Quality Control and Proficiency Testing Programs monitor all tests and instruments in accordance with accreditation by A2LA (The American Association for Laboratory Accreditation) to comply with ISO/IEC 17025:2005.

Our services are problem solving as well as solely analytical. We strongly encourage that a problem be discussed in its entirety prior to submission of samples so that the proper test methods, reference materials, and preparation techniques can be applied.

Material Characterization

- Defects
- Contaminants
- Deposits
- Mineral Identification
- Thermal Properties

Microscopy

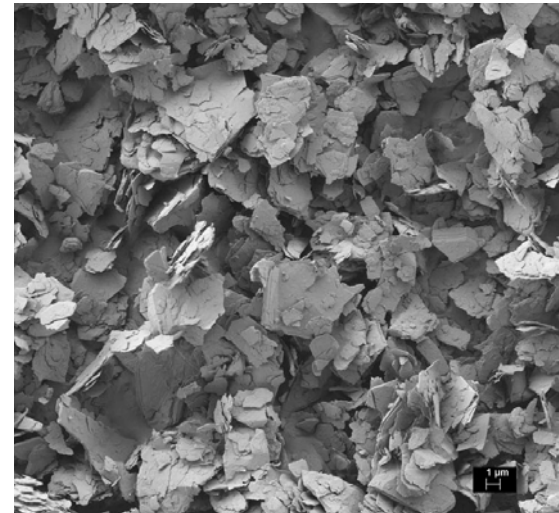
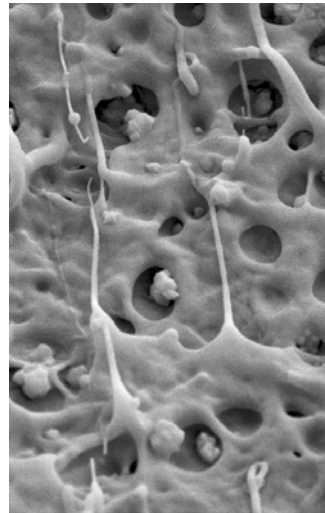
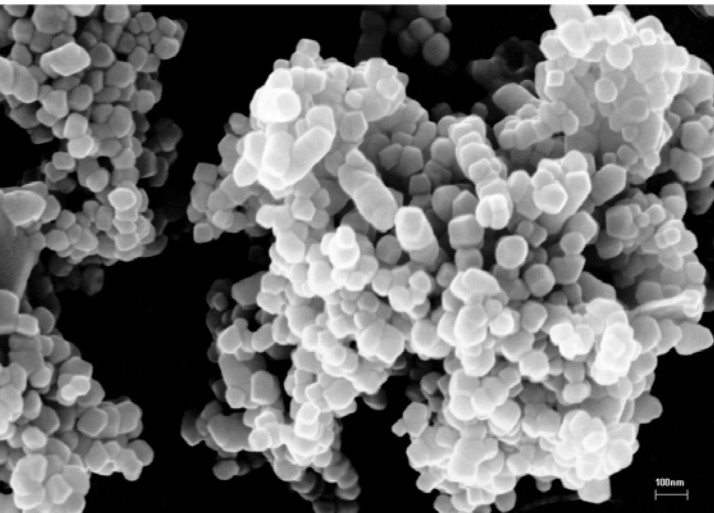
- Particle Morphology
- Surface Structure
- Elemental Analysis & Mapping
- Microstructural Characterization

Chemical Analysis

- Bulk Elemental Analysis
 - Trace levels to assay
- Ion Chromatography
- Low Temperature Carbon

Organic Analysis

- Isolation and separation
- Identification by FTIR
- GC-MS
- Classical Wet Procedures



Capabilities List

Analysis is customized per client's request.
Contact asg@mineralstech.com or 484-541-7043 for
test details, sample size, turnaround time and quotation.

Light Microscopy

Transmitted and reflected with Bright Field, Darkfield,
Differential Interference Contrast, Phase Contrast,
Fluorescence and Polarized Light

SEM

Scanning Electron Microscopy

FESEM

Field Emission Scanning Electron Microscopy

XEDS

X-ray Energy Dispersive Spectroscopy

EBSD

Electron Back Scatter Diffraction

Quantitive Image Analysis

Computerized image analysis system used for size
analysis, coating coverage, And more

X-Ray Diffraction

Qualitative phase identification as major,
minor or trace
Semi-quantitative estimates as a range of
the percent present

Surface XRD

Surface layer phase identification using
Parallel Beam Optics

Thermal XRD

Mineral phase characterization vs
temperature to 1550C

Thermal Characterization

TGA-DTA - Scouting Runs to 1685C

TGA-DSC - Enthalpy to 1500C

Quantitative testing to evaluate the
temperatures of chemical and physical
changes, monitor weight changes to assist
sample identification.

Elemental Analysis by XRF

Steelmaking slag

Limestone

Other minerals

Trace Elemental Analysis ICP-MS

Elements determined by client.

Anion Analysis

F, Cl, NO₂, NO₃, PO₄, SO₄,
CO₃, HCO₃

FTIR

Characterization by FTIR

Solvent Extractive

Determine weight extracted with specified
solvent

Loss On Ignition (LOI)

Determine weight loss of volatile
compounds, performed at specified time
and temperature

pH

Cold or Hot Extraction

Ash Content

Determine weight of residue at specified
time and temperature

Additional Charges

Sample Preparation, polish

Custom Reporting

per quote

per quote

Rush Analyses (call for availability)

3-5 Day turnaround

100% Premium

24-48 hour Turnaround

200% Premium

Multiple Sample Discounts

6-10

5% Discount

11-20

10% Discount

21-40

15% Discount



Specialty
MINERALS

ANALYTICAL SERVICES

640 North 13th Street
Easton, PA 18042
484-541-7043

valid thru 2013