

# CHEMICAL ANALYSIS & MATERIAL IDENTIFICATION

Lucideon is uniquely equipped to help you select and characterize materials, perform regulatory and specification testing, evaluate supplier quality, assess cleanliness, troubleshoot manufacturing issues, identify sources of contamination, determine the root causes for defects and develop next-gen products.

## ANALYTICAL CAPABILITIES

Our state-of-the-art analytical techniques can provide information about the chemical composition of most any material, received in solid, liquid or gaseous form. Results can range from qualitative to quantitative in nature, and data can be provided in numerical form, graphical spectra or color-mapped images. Our most popular techniques include:

- DSC
- GPC
- TGA
- DSIMS
- IC
- ToFSIMS
- EPMA
- ICP-OES
- XPS
- FTIR
- LCMS
- XRD

- GCMS
- SEM-EDS
- XRF

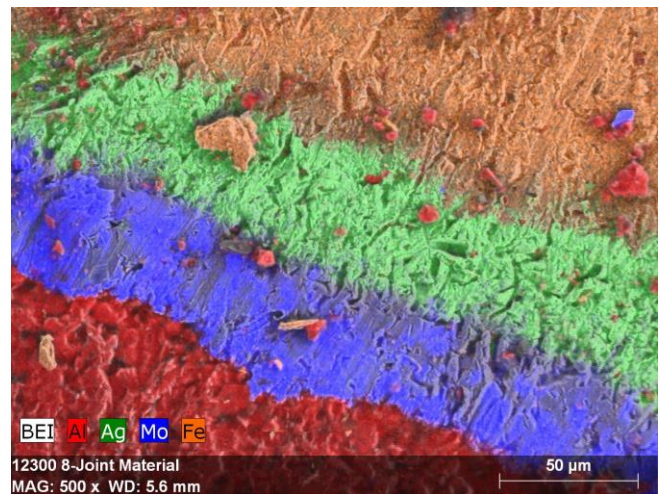


Fig.1. Chemical analysis via Electron Microprobe featuring aluminum, silver, molybdenum and iron

## TYPICAL APPLICATIONS

- Identification of unknown material
- Material verification
- Alloy identification
- Assessment of lot-to-lot variability
- Evaluation of material equivalency
- Contaminant source identification
- Measurement of concentrations of undesired materials

- Cleanliness evaluations
- Root cause of staining/residue accumulation
- Composition of filter debris
- Assessment of homogeneity of a material or coating
- Chemical exposure evaluations
- Root cause of adhesion failures
- Material selection
- Independent third party evaluations

## EXTENSIVE MATERIALS KNOWLEDGE

We have extensive knowledge of materials, a wide array of analytical techniques, and dedicated analysts with decades of industry experience ready to answer virtually any question, or provide a solution to nearly any material, product or process problem you may have.