MICROVISION
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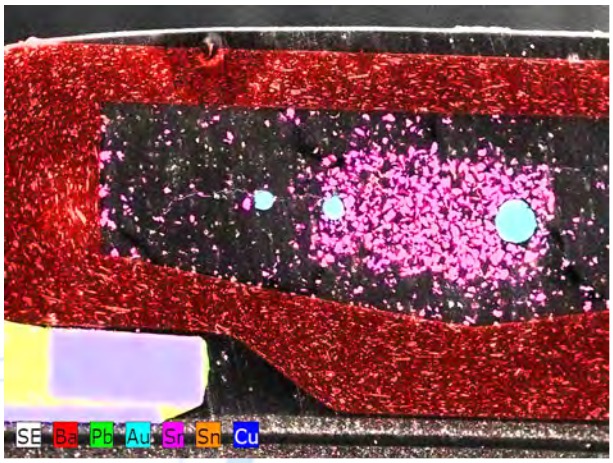
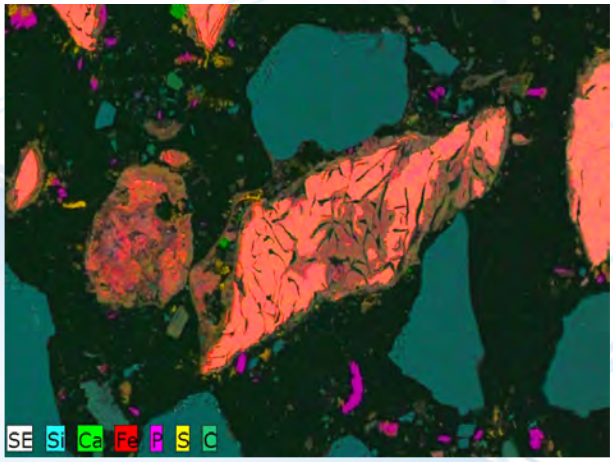
Elemental Mapping Analysis

High resolution images from a Scanning Electron Microscope (SEM) and elemental spectral data gained using Energy Dispersive Spectroscopy (EDX) can be combined to allow for an extremely detailed analysis of materials and multi-phase samples. Elemental composition data from areas as small as a single pixel in a digital image can be obtained and indexed, allowing for a wealth of data to be obtained in an extremely short time. A computer assisted analysis of the indexed data adds color to an SEM image to correlate elements or discrete phases with individual colors. This colored image can give information about size, distributions, intergrowths and associations in samples that are impossible to obtain in any other way.



Diode Packaging Section



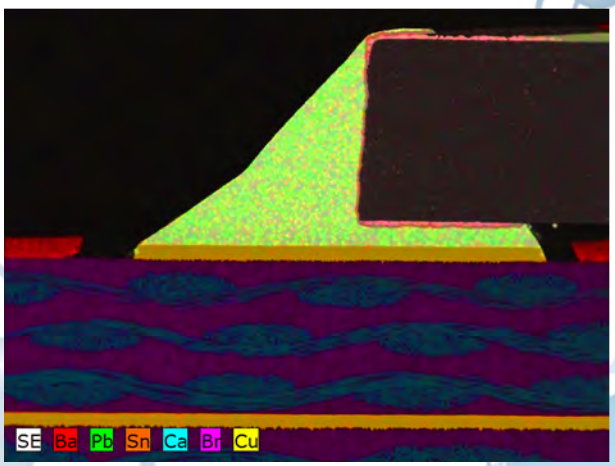
Suspended Crystal Phase in Mineral Solution

Advantages:

- Several phases or elements of interest can be easily mapped and presented in a single image
- Full spectral indexing of data can be saved for later computational analysis, allowing for re-examination of sample parameters
- Images with elemental data can be used to develop fractional and compositional analysis for quantitative examination
- Elemental mapping highlights inclusions or aberrations in the sample matrix, showing the nature of any suspect materials

Application Fields:

- Materials Science
- Metallography
- Electronics and Semi-conductors
- Environmental Analysis
- Paint and Coating Technolgies
- Print Processing
- Mineralogy and Geology
- Manufacturing Technology
- Filtration and Process Treatment



Printed Circuit Board Layers

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