

SEM/EDS Analysis

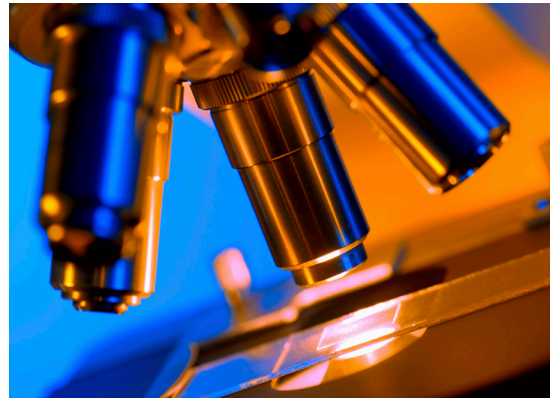
Determine the make-up of deposits through safe non-destructive techniques.

Challenge

Frequently there are unwanted materials referred to as FME observed in plant components. There is also deposition of materials which accumulate in the plant systems as a sludge or solid deposit. These FME or deposit materials can cause surface fractures, flaws, contaminate intrusions or corrosion of plant components. Providing a simple and cost-effective identification of these materials composition and contribution in damage mechanisms is needed to protect the asset.

Solution

Framatome's Scanning Electron Microscopy / Energy Dispersive Spectroscopy (SEM/EDS) analysis utilizes a focused beam of electrons to produce complex, high magnification images of a sample's surface topography as well as identification of contaminants or unknown particles related to the cause of metallurgical failure and interactions between materials. High-resolution/high-magnification SEM imaging supports the determination of the number, size, and morphology of small particles, assisting in the understanding of material wear properties. Supplemental to the SEM is the EDS analysis used to acquire the elemental composition of a sample and allows for a more quantitative result than that provided by only SEM analysis.



Customer benefits

- **Calculates** the loss of performance from reduced heat transfer in your heat exchangers
- **Assists** in adjusting water chemistry to minimize deposit buildup in both SGs and heat exchangers maximizing asset longevity

Your performance
is **our** everyday **commitment**

Contact:

chemistry-services@framatome.com
www.framatome.com

The data and information contained herein are provided solely for illustration and informational purposes and create no legal obligations by Framatome Inc. None of the information or data is intended by Framatome Inc. to be a representation or a warranty of any kind, expressed or implied, and Framatome Inc. assumes no liability for the use of or reliance on any information or data disclosed in this document. ©2018 Framatome Inc. All rights reserved. PS_US_557_ENG_12-18