SAMPLE PREPARATION AND CALIBRATION FOR A ROHS/WEEE COMPLIANT SCREENING METHOD
(FOR ED AND WD XRF)

Dr. Kai Behrens, Alexander Seyfarth, John Sardisco
Bruker AXS GmbH Karlsruhe, Germany, Bruker AXS Inc. Madison, WI, U.S.A.,
Sardisco Enterprises, Baton Rouge LA, U.S.A.

ROHS compliance testing using a stationary ED or WD XRF requires the sample to be prepared in such a way that it “fits” the spectrometer. The spectrometer system needs to be calibrated to comply with the screening requirements. The talk will illustrate sample preparation approaches for polymers and electronics yielding a powdered sample. This sample is then measured using a spectrometer (WD) and evaluated with a Fundamental Parameter based calibration approach. The underlying calibration is based on traceable polymer commercially available standards made gravimetrically and solidified to be then ground to a powder. Validation of this approach is illustrated using European Reference Material. This talk illustrates the potential pitfalls of implementing a method on a spectrometer with respect to calibration and sample preparation.