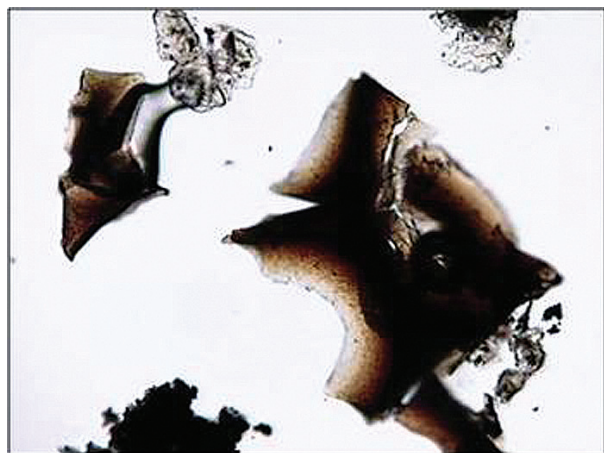
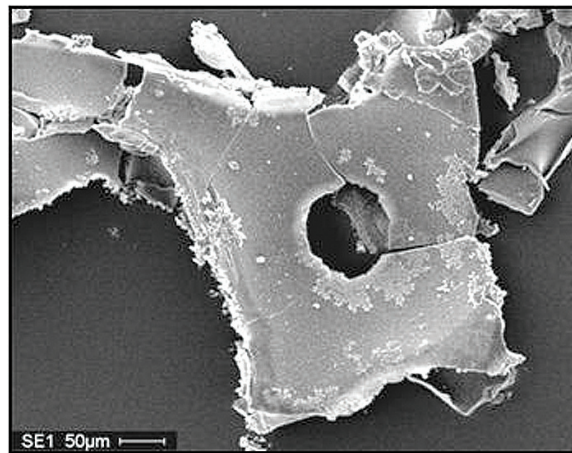


Identifying the opaque (black) dust produced by the shedding of galvanized coatings within HVAC systems

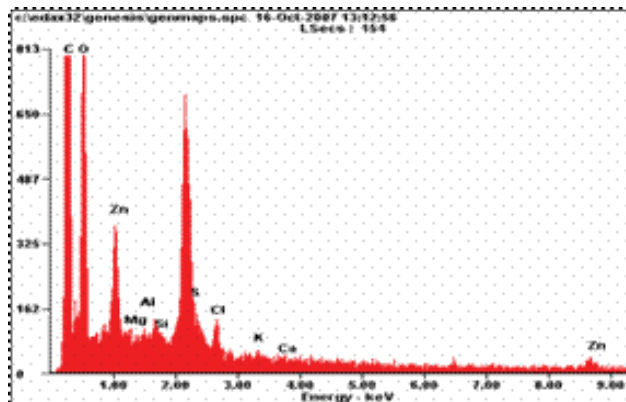
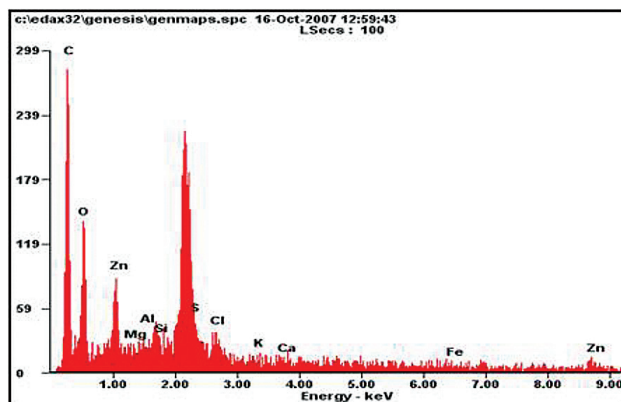
The visual observation of “black dust” accumulating on interior building surfaces is sometimes caused by the degradation of galvanized coatings lining metal ducting within HVAC systems. Because these particles are usually very large (i.e. > 20um) they are readily visible with the naked eye. The actual source of these particles can be readily identified by the presence of Zinc Oxide (Zn and O) in the X-ray spectra. Examples of these particles are shown by optical and electron microscopy below.



Optical Microscopy ~200X



Scanning Electron Microscopy ~200X



Dispersive X-ray Analysis



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Featuring full particle identification via optical and scanning electron microscopy (SEM) and dispersive x-ray analysis on the exact same sample.