



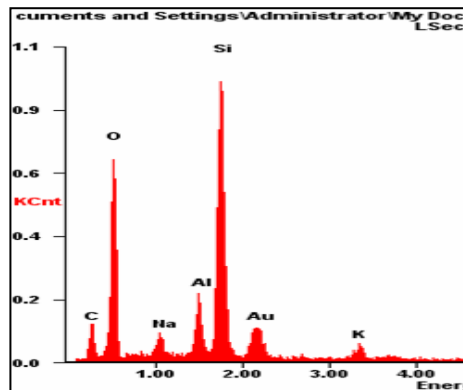
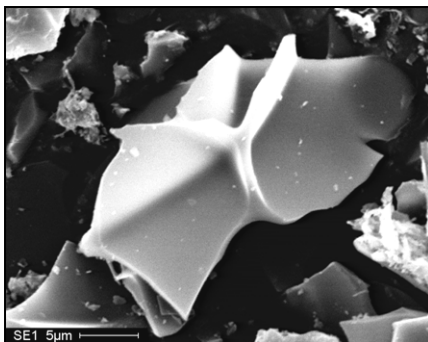
Identifying the source of dust complaints inside buildings

A simple strategy to quickly identify the source and composition of dust complaints is to identify the "indicator" dust particles most often associated with a particular building material or condition. This can most effectively be performed by using light microscopy to first analyze the biogenic dust (mold, pollen, skin cells, etc.). Examples of these particles are given in the "Airborne Aerosols Method Guide" located in the news and information page of my website. Scanning electron microscopy & X-ray analysis is the most effective method for analyzing other inorganic dust particles. Surface dust conditions usually manifest as visually "white" or "black" dust. Two of the most common causes of what I characterize as "white dust syndrome" can easily be verified by Scanning Electron Microscopy as shown below.



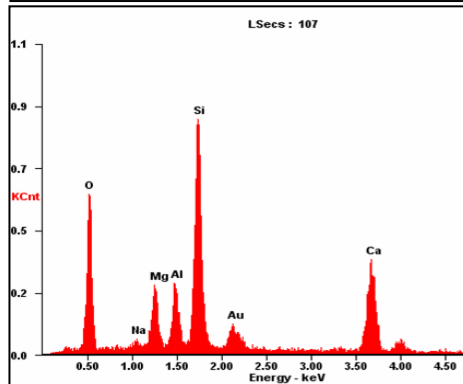
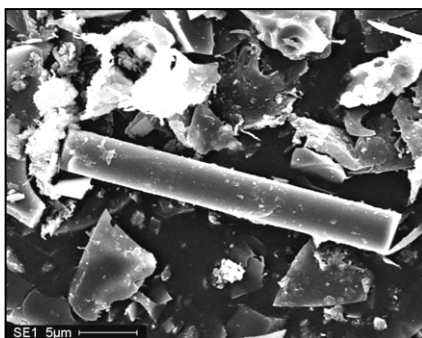
Drop ceiling tiles :

Characteristic Perlite particles with a known elemental composition.



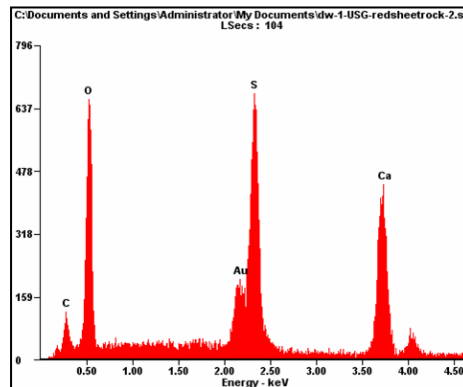
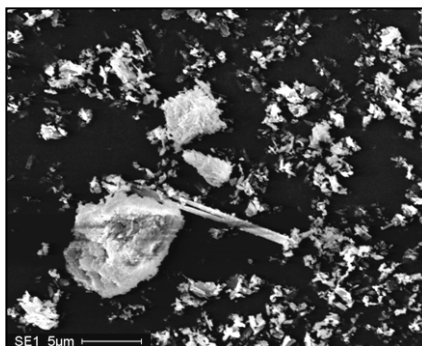
Drop ceiling tiles :

Mineral wool fibers have a different elemental composition than yellow and pink thermal fiberglass insulation found in ductwrap and wall insulation.



Drywall dust :

Characteristic particle morphology by both PLM and SEM and Calcium Sulfate composition by X-ray analysis.



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