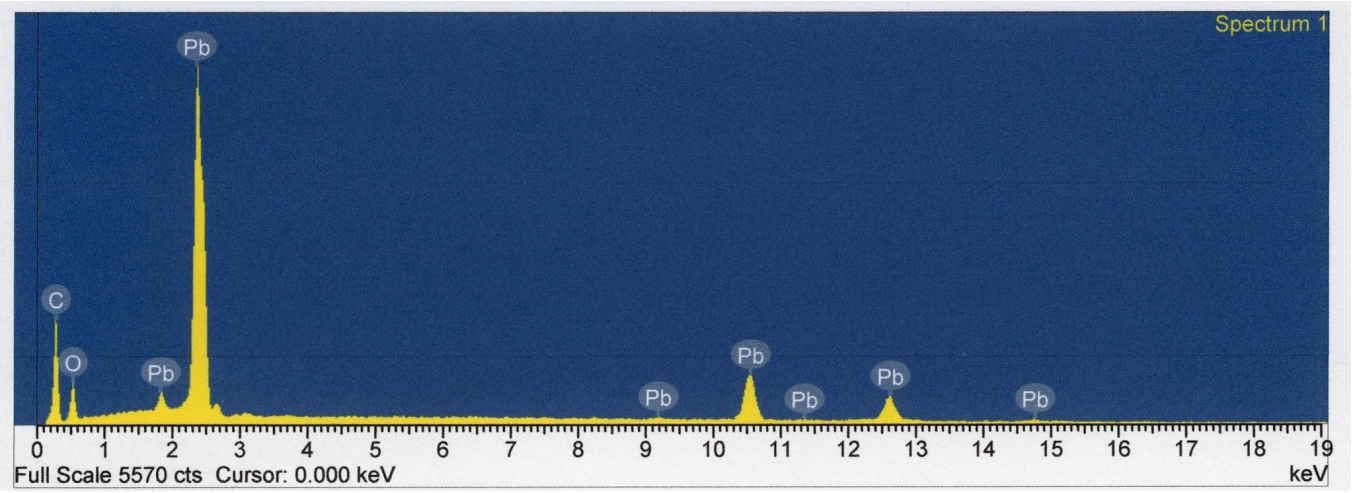
Sample 5
White (from paper)

EDS



Elements detected:
C - Carbon
O - Oxygen
Pb - Lead

Pigments identified:
Lead white - 2PbCO3·Pb(OH)2

The white used throughout this painting, including this sample from the paper or parchment on the desk, comprises lead carbonate. Lead white is traditionally made through the "Dutch" or "stack" process: a coiled strip of lead is suspended over vinegar in an earthenware pot, and several pots are stacked with fermenting dung or bark in between. The fermentation process provides heat as well as carbon dioxide that combined with the vapors from the vinegar, causing a layer of white lead carbonate to form on the lead's surface. After about a month, the coils are scraped, producing the white pigment. Making white lead is especially dangerous, as the powder, an easily breathable substance, caused lead poisoning.