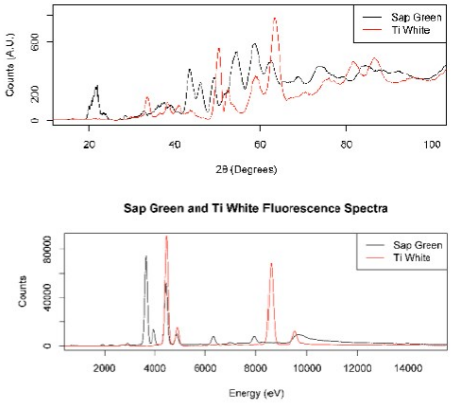
Pigment Analysis: X-Ray Fluorescence and Diffraction with One Detector, One Measurement and No Moving Parts



Jeff Davis
PNDetector GmbH

Traditionally, X-ray fluorescence is used to identify pigments on canvas based on the presence of elements such as iron, chromium, lead, and cadmium. Unfortunately, X-ray fluorescence alone cannot be used to differentiate compositionally identical materials. This is problematic, for instance, when working with iron oxide pigments, such as yellow ochre and red ochre. X-ray diffraction, which can differentiate compositionally identical materials, is time consuming and expensive. A new method, using the Color X-ray Camera developed by PNDetector, can provide both a fluorescence spectrum and a diffraction pattern in as little as five seconds without scanning the detector and source. The applications of this method to the analysis of pigments and other materials will be presented in a lecture. Please plan to attend!

MCI

Topics in Museum Conservation

September 21, 2016
10:45 am
Wednesday

MCI Theater
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4210 Silver Hill Road
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