

Macro X-ray Fluorescence and Reflectance Imaging Spectroscopies to Study Paintings

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Macro X-ray fluorescence and reflectance (400-2500 nm) imaging spectroscopies have been used independently by researchers in the study of Old Master paintings to help identify artists' materials and understand artistic practice.

Since both imaging techniques produce material maps, the information is accessible to a more diverse group of scholars including conservators and art historians. Recent research has shown these two methods provide complementary information which when combined can provide new results and answer long standing questions. A description of these methods along with results from examples showing the information will be presented. The case studies will include paintings by Vermeer, Bellini, and Picasso.