

Century Oil Paints: towards new analytical strategies for integrated paint medium and synthetic organic pigment analysis

Sanne Berbers

Abstract:

Today oil paints from the 20th and 21st century present us with a range of complicated conservation challenges that differ from those presented in paintings from earlier centuries. The development of the paint tube and wide range of synthetic organic pigments rapidly changed the way paint was produced and used. These changes in the paint composition now cause some of the paintings with which these paints were made to have unpredictable water and solvent sensitivity, fading colours, form surface skins of medium and exudates on the paint surface, and cases of efflorescence and dripping paints are known. A better understanding of these paints is needed to develop new conservations methodologies. The limitations in both number and size of available samples from cultural heritage objects leads to the need to combine analysis where possible. The development of a new method for the integrated analysis of both paint medium and synthetic organic pigments on one sample using liquid chromatography and mass spectrometry aims to make these analysis more applicable.