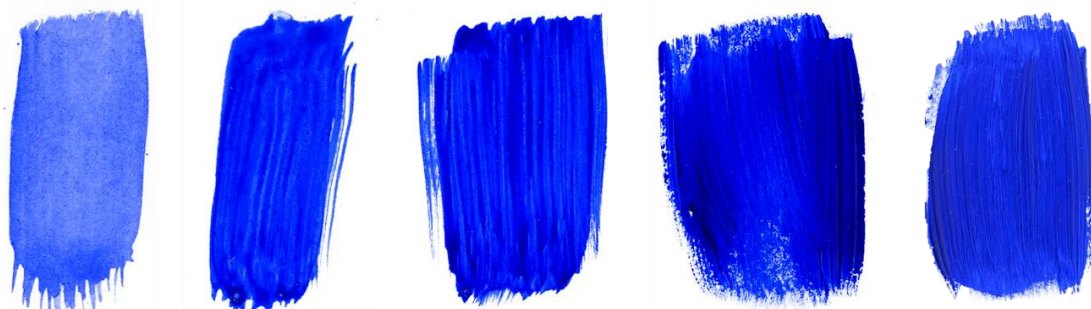


Dr.-Ing. Ophélie Ranquet

Evonik Operations GmbH

When Engineering, Science and Art meet: Rheology, Chemistry and Microstructure of Oil and Tempera Paints



This research explores the use of egg and oil binders in Old Masters' paintings, focusing on their effects on paint behavior, drying, and aging. Despite their historical use by artists like Botticelli and da Vinci, the reasons for these combinations remain unclear. Using a multi-disciplinary approach, the rheological and physico-chemical properties of mock-up paints made with egg yolk, linseed oil, and pigments was investigated. Techniques such as rheology, thermal analysis and spectrometry analyze how binder distribution influences flow behavior and drying kinetics. Findings suggest that egg additions enhance brushability, control drying times, and act as antioxidants. By linking ancient formulations to modern conservation, this research offers new insights for preserving artworks."

Dienstag, 12.11.2024 um 17:00 Uhr in Hörsaal B



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