

Combining macro-XRF, OCT, and sampling techniques in the authentication study of the painting attributed to Michael Willmann.

Autorzy

Barbara Łydźba-Kopczyńska

Magdalena Iwanicka

Magdalena Kowalska

Piotr Targowski

Rok wydania

2021

Czasopismo

X-Ray Spectrometry

Numer woluminu

50

Strony

384-400

DOI

10.1002/xrs.3217

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

In this contribution, we present the first analytical study of the painting "Christ in Gethsemane" (from a parish church of the Assumption of the Blessed Virgin Mary in Żagań, Silesia, Poland) which attribution to Michael Willmann (1630–1706) has been questioned recently by art historians. After some preliminary non-invasive investigations, the painting was subjected to Macro XRF scanning. The further detailed study of micro-samples became essential although of limited scope since, given the painting's historical value, their number had to be strictly limited. The application of optical coherence tomography (OCT) allowed selecting areas of the original paint layer and collecting samples representative of the artist's technique. Further study analysis of the cross-sections stratigraphy using UV–VIS optical microscopy and SEM-EDS analysis supported the conclusions derived from MA-XRF images. All the results were compared with a reference database containing information about various painting materials used by M. Willmann during all his artistic periods which finally allowed for negative attribution of the painting to the master.

Adres publiczny

<http://dx.doi.org/10.1002/xrs.3217>

Strona internetowa wydawcy

onlinelibrary.wiley.com