



## New Advances in Macro X-ray Fluorescence Applications

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### Message from the Guest Editor

Dear Colleagues,

The most common application of macro-X-ray fluorescence imaging is on Cultural Heritage artifacts. The first application was on a painting in 2008 using a synchrotron radiation source. Today, commercial and state-of-the-art portable XRF spectrometers can perform macro-XRF imaging in a continuous mode on large surfaces. The technique is frequently used for the characterization of pigments on paintings, scrolls, works on paper, and more recently on ancient wall paintings polychromies. Moreover, MA-XRF imaging has succeeded in many cases in re-visualizing an overpainted image or revealing iconographic elements that are either invisible to the naked eye or illegible due to their bad state of conservation.

The distribution of metals inside the biological samples, although exceptionally low, is of high importance in chemical, biochemical, and pharmaceutical studies. The application of synchrotron radiation macro-XRF imaging has proven to be an asset due to the high spectral brightness, which is many orders of magnitude higher than any X-ray source...





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## Message from the Editor-in-Chief

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