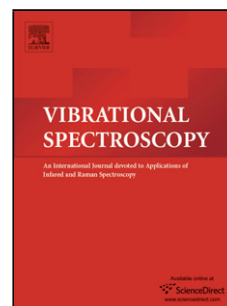


Accepted Manuscript

Title: Investigations on Empire series postage stamps of Ottomans (printed 1880-1890) by vibrational spectroscopic and energy dispersive X-ray fluorescence techniques

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PII: S0924-2031(16)30125-4
DOI: <http://dx.doi.org/doi:10.1016/j.vibspec.2016.12.012>
Reference: VIBSPE 2671

To appear in: *VIBSPE*

Received date: 1-7-2016
Accepted date: 30-12-2016

Please cite this article as: Tanil Akyuz, Sevim Akyuz, Investigations on Empire series postage stamps of Ottomans (printed 1880-1890) by vibrational spectroscopic and energy dispersive X-ray fluorescence techniques, *Vibrational Spectroscopy* <http://dx.doi.org/10.1016/j.vibspec.2016.12.012>

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Investigations on Empire series postage stamps of Ottomans (printed 1880-1890) by vibrational spectroscopic and energy dispersive X-ray fluorescence techniques

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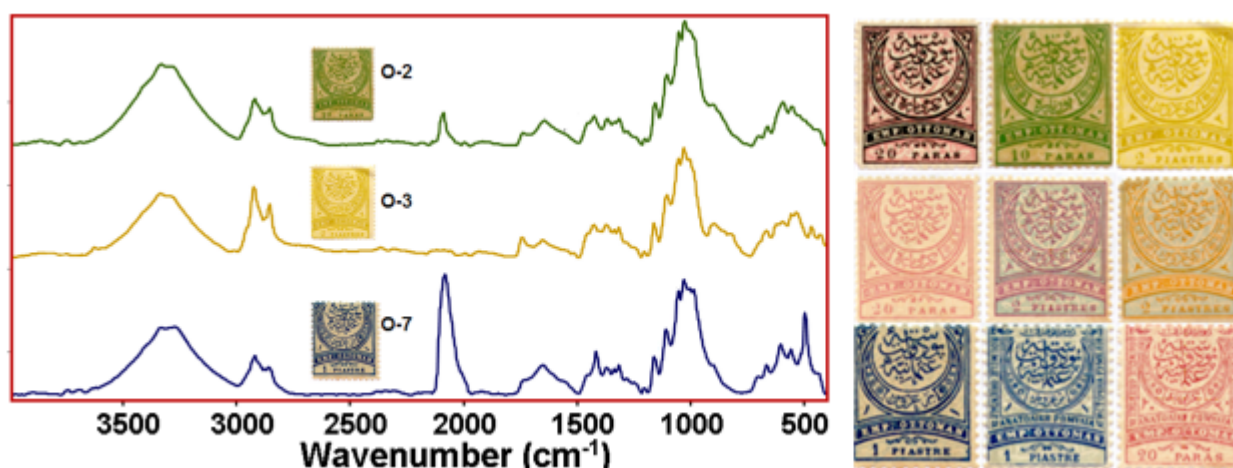
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Graphical abstract



Highlights

- Nine Ottoman Empire series of stamps were analyzed non-destructively by means of ATR-FTIR, Raman and EDXRF.
- Identification of pigments was performed.
- All stamps were colored with inorganic pigments
- Chrome yellow, Prussian blue, vermillion, magnetite and MnO₂ were identified.

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