

Spectroscopic Characterization of Historic Fabrics: The Bossi Book, the *Journal of the American Chemical Society*, and other Surprising Sources of Dyestuff Samples

Seminar

Monday

February 9, 2026

3:00 – 4:00 p.m.

Beaupre 105

The Bossi book, a bound volume containing handwritten dyestuff recipes and corresponding fabric samples dated to 1902, is in the archives of the Manchester Historic Association (New Hampshire, USA). Research on the Bossi book fabrics led to the identification of additional fabric samples including those unexpectedly included within 1870s issues of *the Journal of the Chemical Society (London)* (now the Royal Society of Chemistry) and the *Journal of the American Chemical Society*. No documentation on the production of these fabrics is available in the journal issues themselves nor from the publishers. The chemical analyses of these historic fabric samples will be presented. Elemental information was acquired via portable X-ray fluorescence (XRF) spectroscopy, and molecular spectra were obtained via portable Raman spectroscopy and portable visible spectroscopy. Chemical differences among the dyes were observed. Data were used to explore the organic dye identities and metal mordants.



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