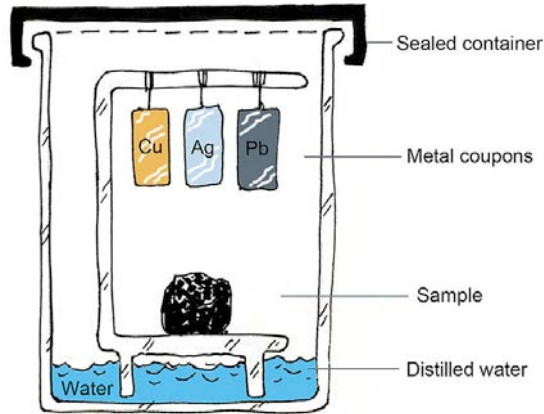


Exploring Experimental Parameters for Paper as an Indicator in the Oddy Test

Department of Scientific Research, The Metropolitan Museum of Art

Student: Rachel Mochon | Advisor: Eric Breitung

The Oddy Test⁽¹⁾:



The Paper Test:



Paper Test Materials and Conditions

Materials Tested:

- Obomodulan® board (polyurethane)
- Sintra® foam board (polyvinyl chloride)
- Volara® white foam (polyethylene)
- Palziv foam (polyethylene)
- Jade 403 adhesive (polyvinyl acetate)

Conditions Tested

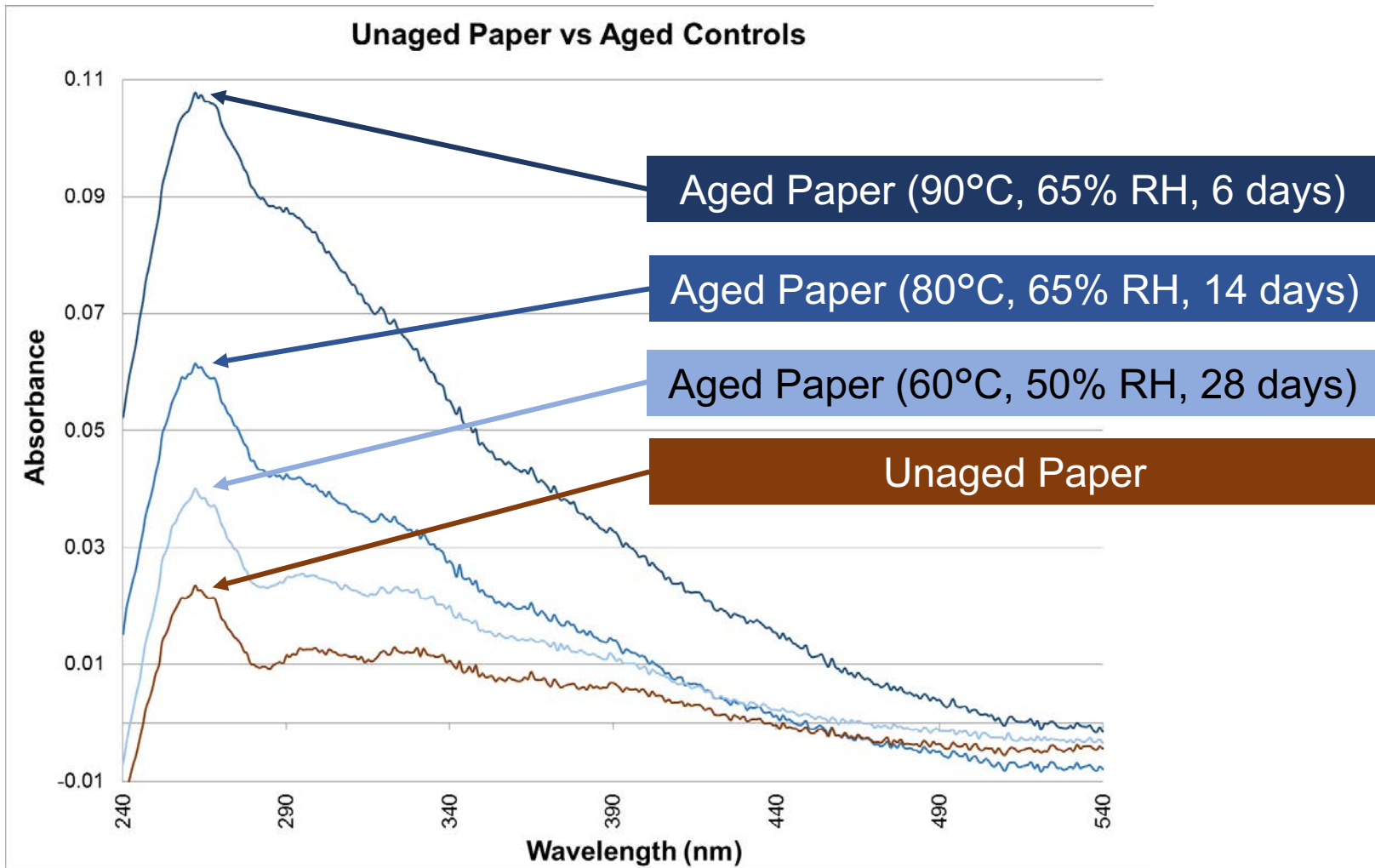
Set	Temp. (°C)	RH (%)	Days
A	60	50	28
B	80	65	14
C	90	65	6

(1) http://www.conservation-wiki.com/wiki/Oddy_Test



Comparison of Aged and Unaged Paper Using UV-Visible Spectroscopy

Oxidation Increasing

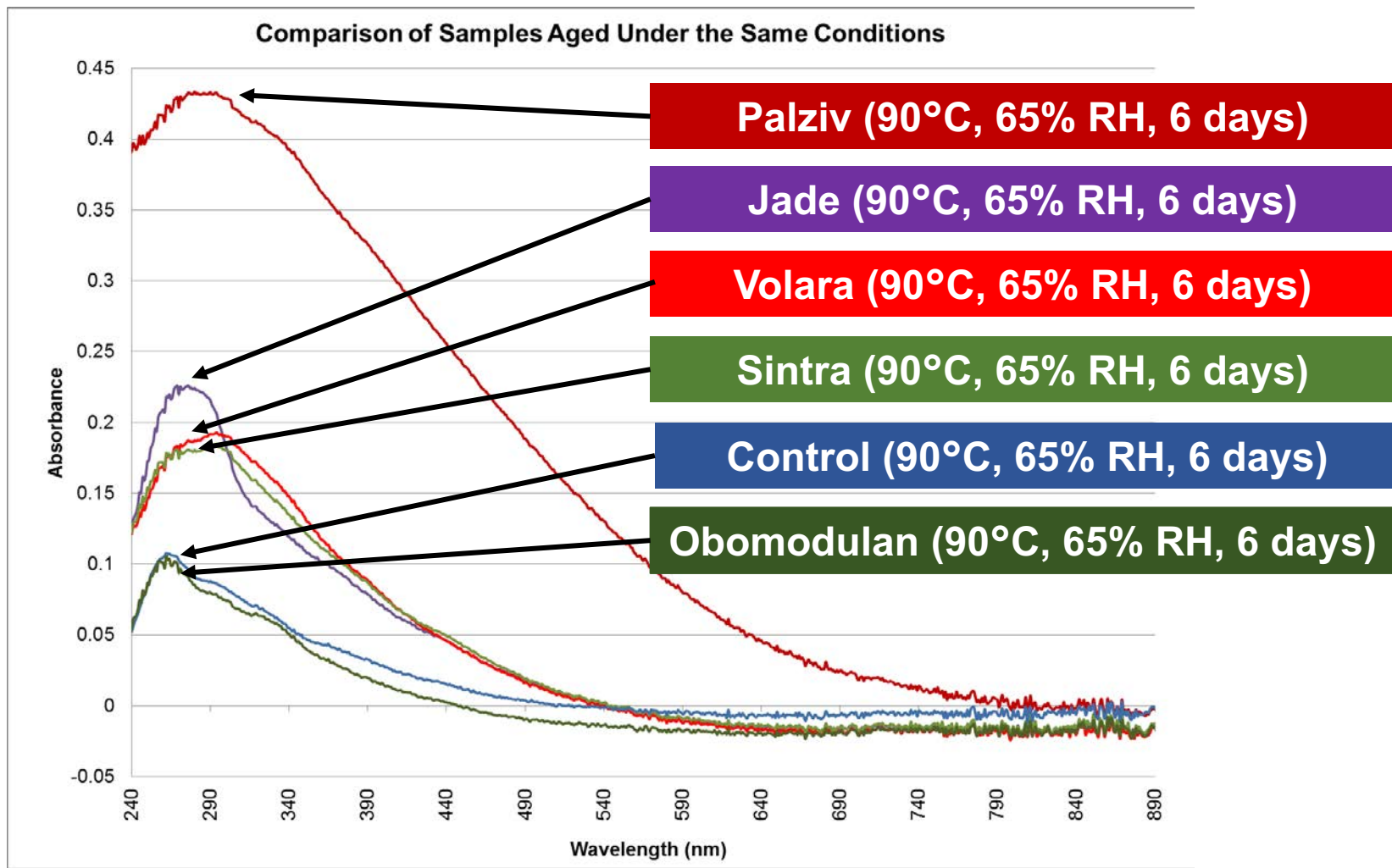


The aged papers exhibit increased absorbance in the UV region.



The UV-Visible Spectra of Papers Aged with Different Case Materials

Oxidation Increasing ↑

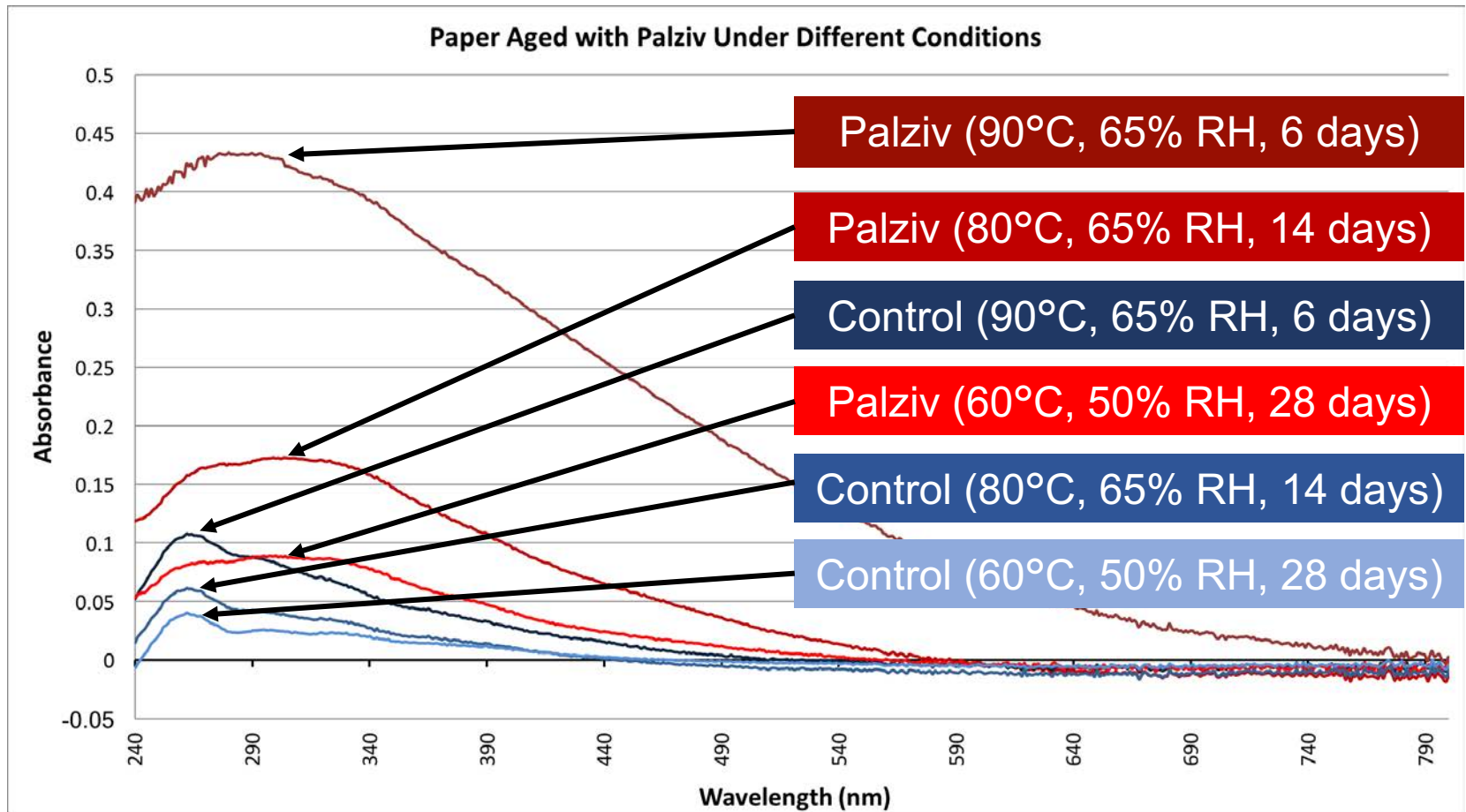


Case materials produced peaks of varying intensity and shape in the UV region.



Comparison of Accelerated Aging Conditions

Oxidation Increasing ↑



Conclusions & Further Research:

- Lower aging temperatures allow for differentiation between case materials.
- Changes in the degradation mechanisms at high and low temperatures may limit applicability of results. Further investigation is needed.



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