

SOME COLOUR CHARACTERISTICS OF THERMALLY MODIFIED WOOD

DACE CIRULE

LATVIAN STATE INSTITUTE OF WOOD CHEMISTRY
Laboratory of wood biodegradation and protection



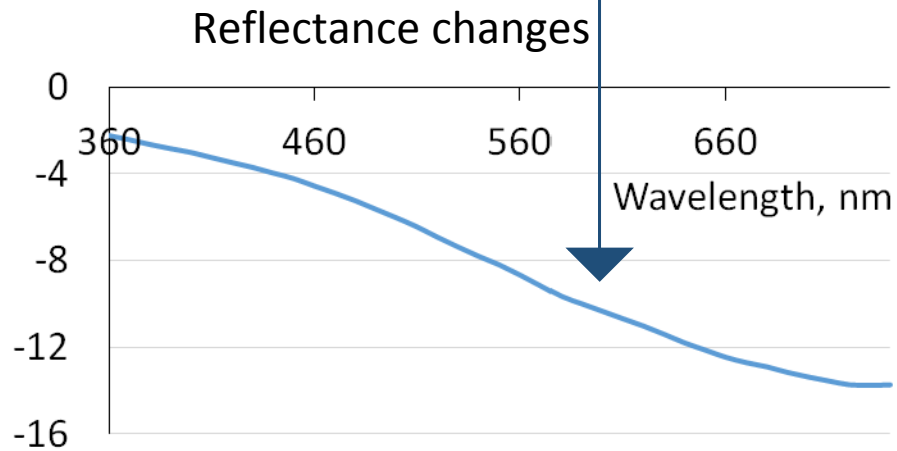
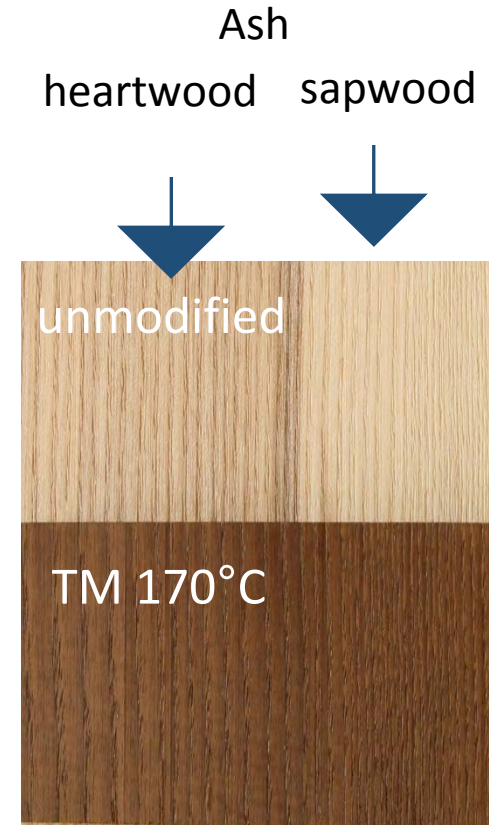
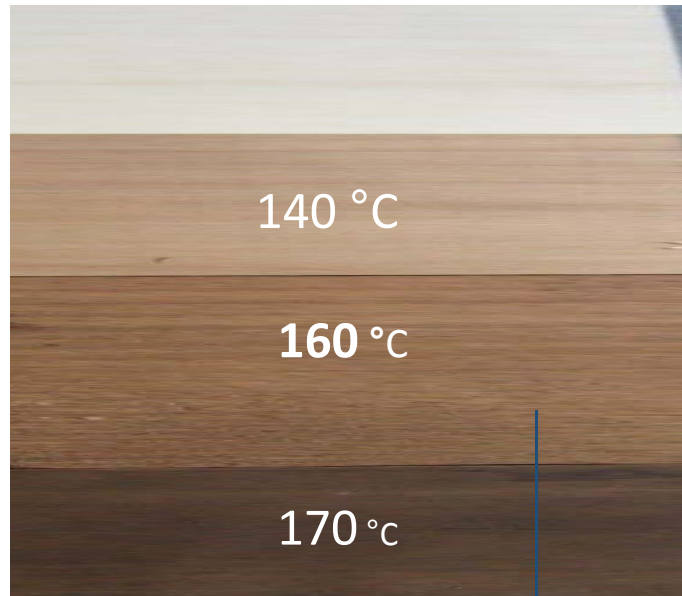
Thermally modified wood

- Improved biodurability → Not suitable for ground contact applications
- Enhanced dimensional stability
- Altered colour
- Loss in strength → Recommended for non – structural usuagae

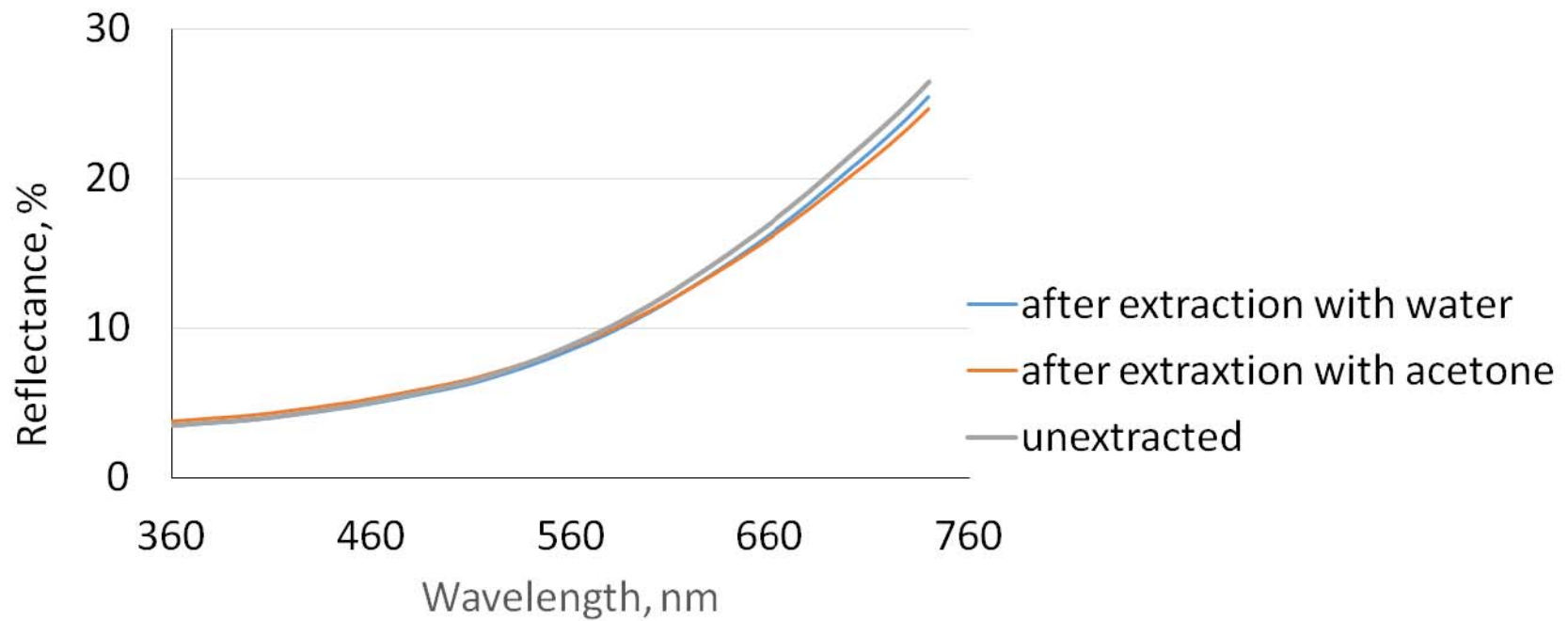
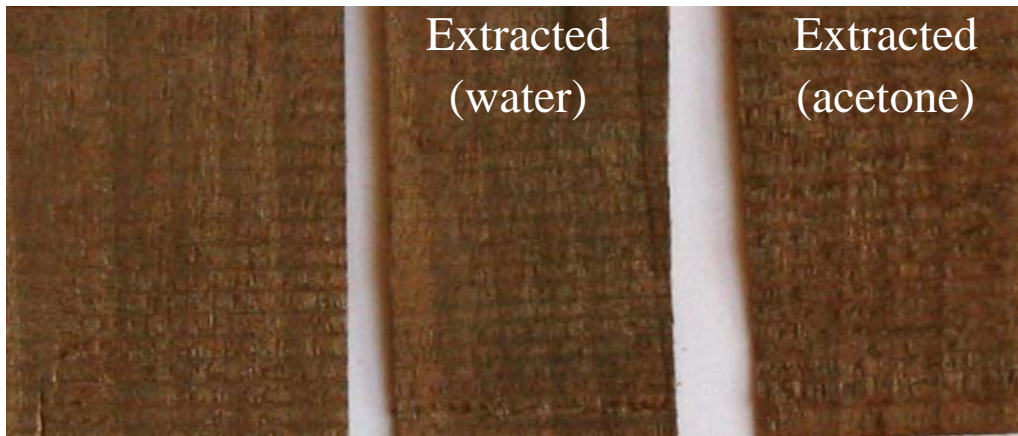


http://abc.lv/?article=termo_koksne

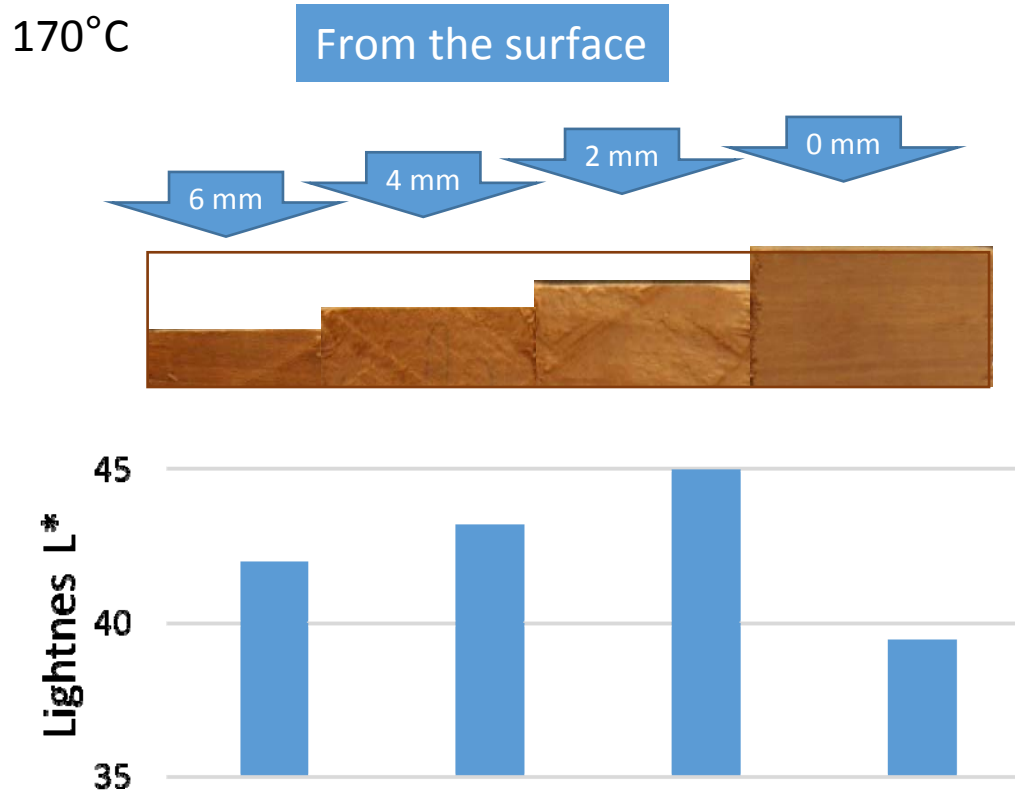
Colour formation during thermal treatment



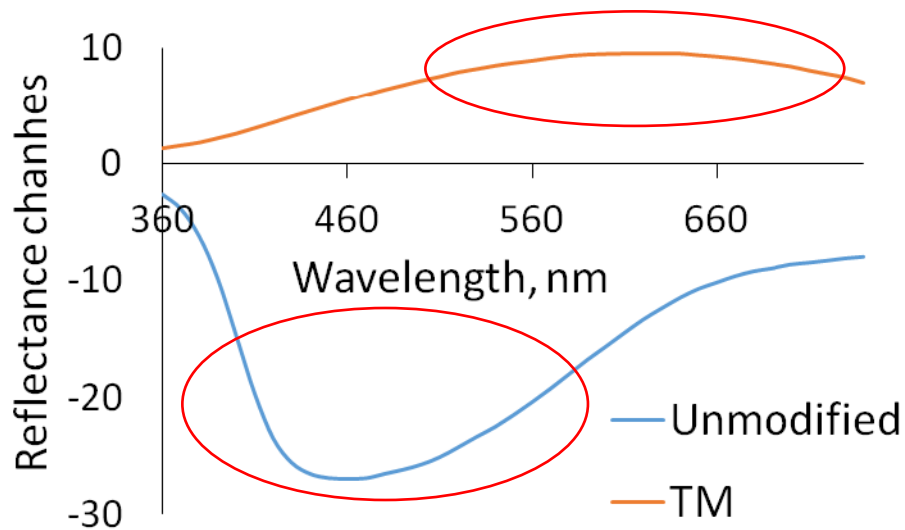
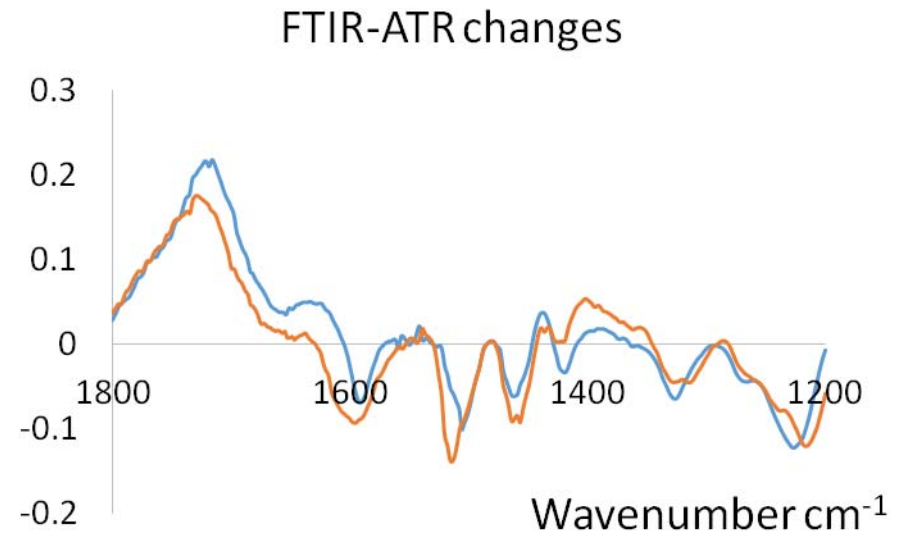
Colour formation during thermal treatment



Colour formation during thermal treatment

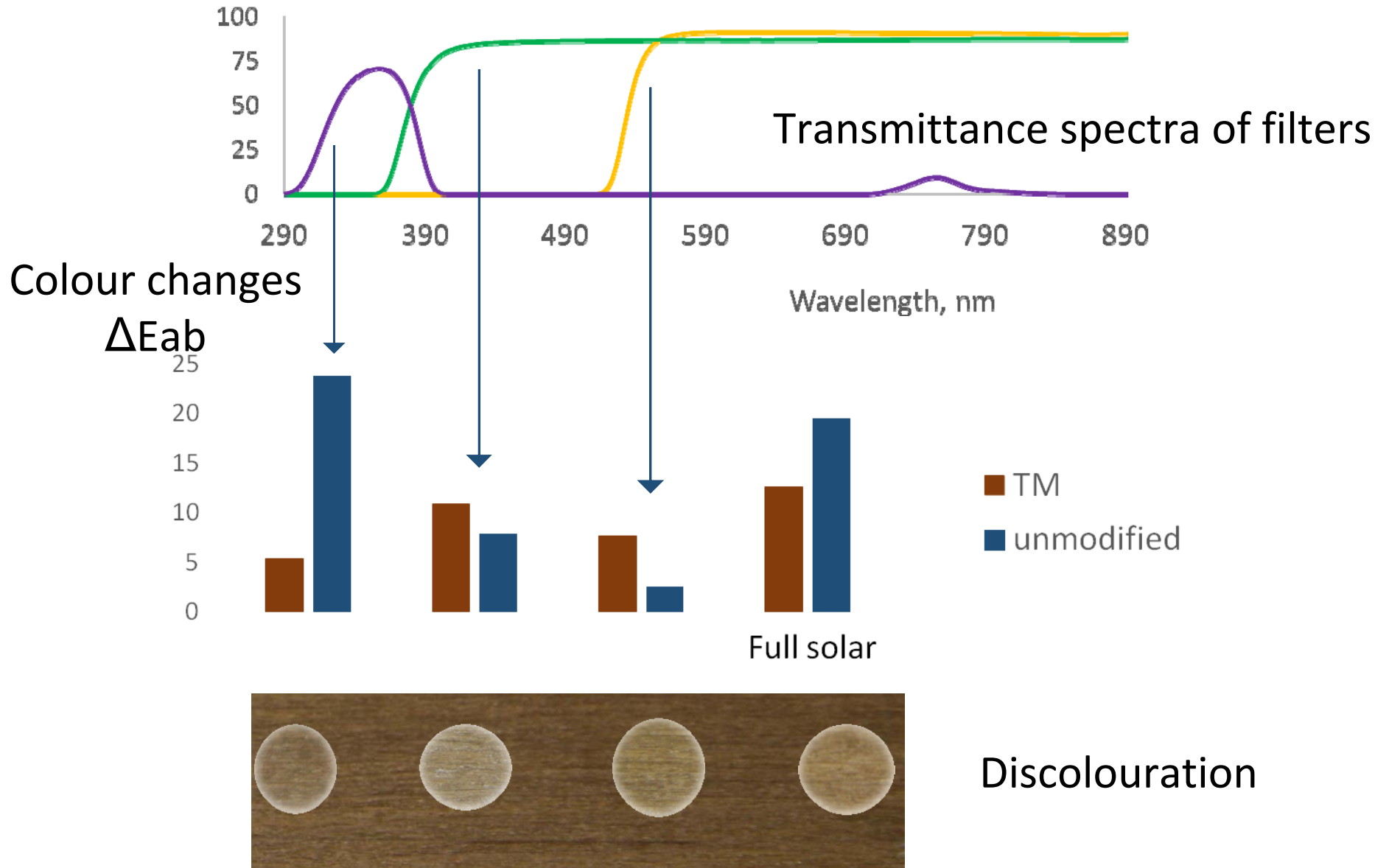


Colour stability - discolouration due to solar irradiation



— Unmodified — TM

Discolouration due to solar irradiation



NIR - ?

How suitable for characterization of wood alteration during thermal treatment and weathering

- Thermally modified wood - essential absorption in the visible light range next to the NIR region
- Penetration depth of the NIR radiation

Thank you for attention