

Multiscale thermomechanical properties of biocomposites: Nanoindentation analysis



From Arts et Métiers:

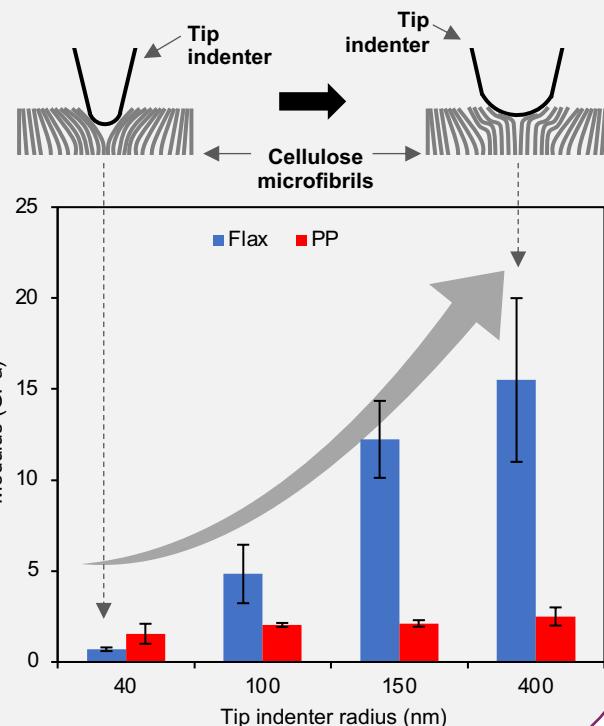
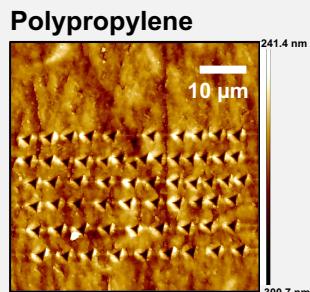
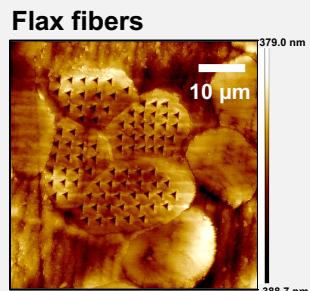
- Dr. Faissal CHEGDANI
- Prof. Mohamed EL MANSORI



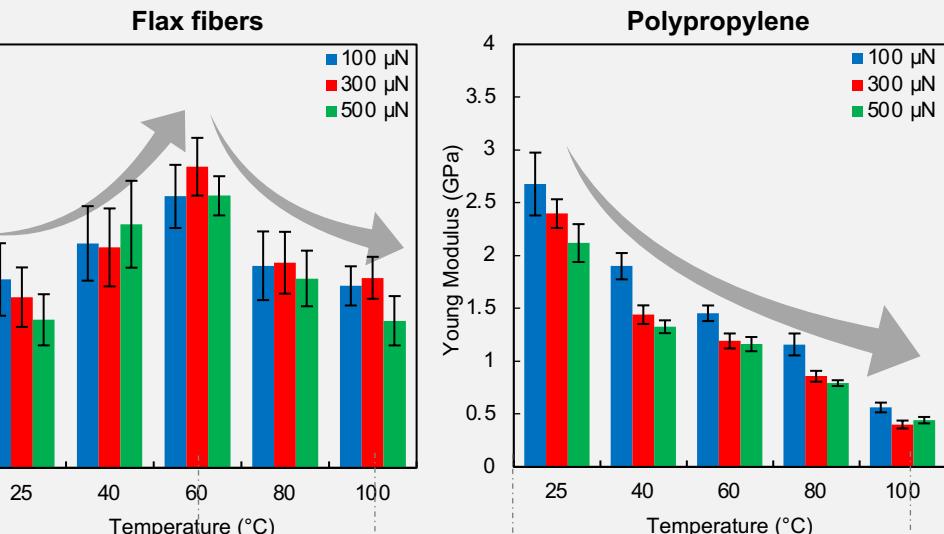
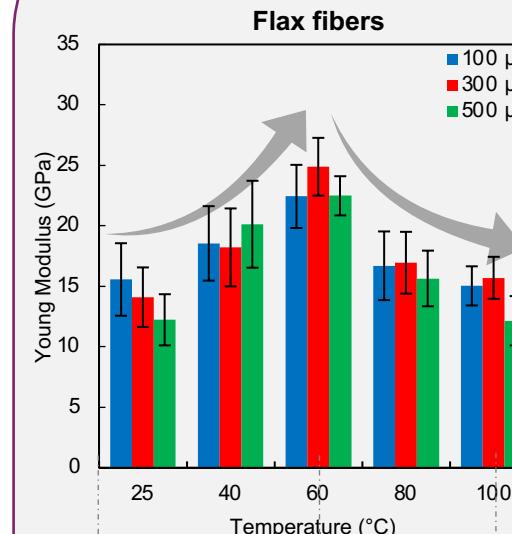
From TEXAS A&M:

- Dr. Zimo WANG
- Mr. Iskander EL AMRI
- Prof. Satish BUKKAPATNAM

Scale effect in natural flax fibers



Thermal effect on mechanical properties



Moisture release from flax fibers

Thermal softening of the polymeric composition of flax fibers

Thermal softening of the polymer matrix

- ❑ Chegdani, F., Wang, Z., El Mansori, M., Bukkapatnam, S.T.S. "Multiscale tribo-mechanical analysis of natural fiber composites for manufacturing applications", Tribology International, Vol. 122, 2018, pp. 143-150
- ❑ Chegdani, F., El Mansori, M., Bukkapatnam, S.T.S., El Amri, I. "Thermal effect on the tribo-mechanical behavior of natural fiber composites at micro-scale", Tribology International, Vol. 149, 2020, art. no. 105831