

Showcasing a study on a nature-inspired strategy towards superhydrophobic wood by a group of researchers led by Prof. Yuxiang Huang from the Wood-based panels and adhesives Laboratory at Institute of Wood Industry, Chinese Academy of Forestry.

A nature-inspired strategy towards superhydrophobic wood

A nature-inspired superhydrophobic wood is fabricated by forming a three-dimensional metal-phenolic networks crosslinked with PDMS on natural wood surface. The strategy suits for both polyphenol-rich/free wood and endows them with superhydrophobic surface (CA of 164.6° and SA of 4.2°). The superhydrophobic wood shows excellent performance in self-cleaning, antifouling, resistance to chemical and mechanical erosion, which is considered a potential green material for indoor and outdoor applications. Image credit: Dr Yuxiang Huang



