Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Fabrication of bulk superhydrophobic wood by grafting porous poly(divinylbenzene) to wood structure using isocyanatoethyl methacrylate

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Table S1. The comparison of superhydrophobic wood in this work and previous studies.

Specimen	Method	CA (°)	RA (°)	Abrasion resistance	Bulk or coating	Ref.
Chinese fir	SiO_2 NPs modified by VTES	154	0	From 155° decreased to 151° with the sandpaper abrasion length of 1.2 m	Coating	1
Chinese fir	Alkali-driven SiO_2 NPs modified by VTES	157	2	From 157° decreased to 150° with the sandpaper abrasion length of 270 cm	Coating	2
Larch wood	Hydrothermal pre-treatment and deposit ZnO nanostructures	160	4	From 160° decreased to 140° with the sandpaper abrasion length of 50 cm	Coating	3
Masson pine wood	Hierarchical core/shell structures fabricated by Cu_2O NPs, PF resin, and stearic acid	153	-	From 153° decreased to 100° with the sandpaper abrasion length of 100 cm	Coating	4
Radiata pine wood	ZIF-8/paraffin with Hexadecyltrimethoxysilane	153	-	From 153° decreased to 150° with the sandpaper abrasion length of 100 cm	Coating	5
Pinus wood	Epoxy/$Cu_2(OH)_3Cl$ NPs/stearic acid	157	9	From 157° decreased to 130° with the sandpaper abrasion	Coating	6

				length of 400 cm		
Poplar wood	Liquid-vapor phase deposition of methyltrimethoxysilane	153	6	From 153° decreased to 150° with the sandpaper abrasion length of 100 cm	Coating	7
Radiata pine wood	Grafting long-chain stearoyl chloride	138	-	137° in internal surface	Bulk highly hydrophobic	8
Poplar wood	ZnO rods modified by palmitoyl chloride	155	3	151° in internal surface	Bulk superhydrophobic	9
Poplar wood	Porous PDVB	156	3	151° in internal surface	Bulk superhydrophobic	This work

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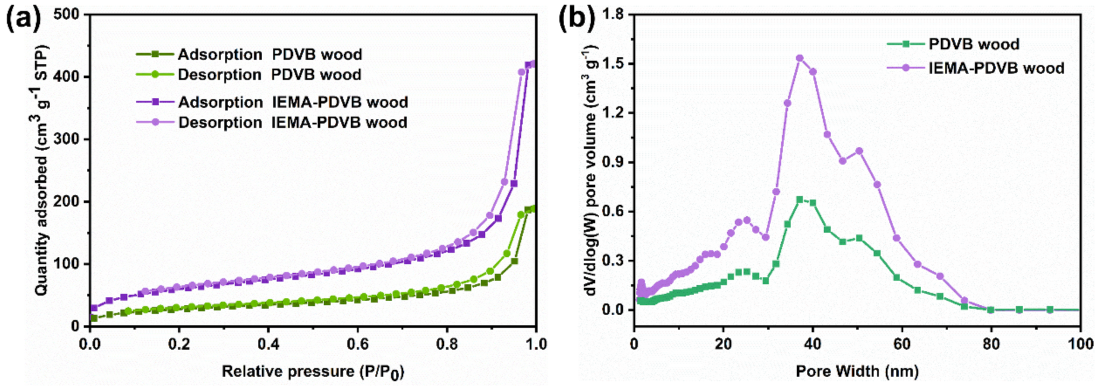

Fig. S1. (a) N_2 adsorption and desorption isotherms of PDVB wood and IEMA-PDVB wood; (b) Pore width distributions of PDVB wood and IEMA-PDVB wood.