

Electronic Supplementary Information

Table 1. Summary of surface-initiated controlled radical polymerization from cellulose fibres.

Cellulose	CRP- technique	Monomer	Application	Ref
Filter paper	ATRP	MA	Hydrophobicity	28
Filter paper	ATRP	MA, HEMA	Hydrophobicity/ Hydrophilicity	29
Filter paper	ATRP	DMAEMA	Antibacterial	47
Filter paper	ATRP	11-(4'-cyanophenyl-4''-phenoxy)undecyl acrylate	Liquid crystallinity	63
Filter paper	ATRP	t-BA	Antibacterial	64
Filter paper	ATRP	GMA, modified	Superhydrophobicity	67,68
Filter paper	ATRP	NIPAAm, 4-VP	Responsivity	70
Filter paper	ARGET- ATRP	MMA, S, GMA	Surface Tailoring	41, 46
Cotton Fibers	ATRP	EA, S	Surface Tailoring	32,33
Cotton Fibers	ARGET- ATRP	MMA	Hydrophobicity	42
Cellulose membranes	ATRP	NIPAAm, AA	Responsivity	44,71
Cellulose membranes	ATRP	DMAEMA	Protein separation	73
Cellulose membranes	ATRP	GMA, modified	Boron removal	45
Cellulose membranes	ATRP	DMVSA	Blood compatibility	43
Cellulose membranes	ATRP	PEGMA	Water Flux	73
Cellulose membranes	ATRP	AA	Binding capacities	74
Dialysis	ATRP	MA, S	Hydrophobicity	38

membranes				
Jute fibres	ATRP	S	Hydrophobicity	30
Ramie Fibres	ATRP	MMA	Hydrophobicity	31
Wood pulp	ATRP	EA, MeDMA	Surface Tailoring	32,33
Lyocell fibres	ATRP	MA, S	Hydrophobicity	38
NCC	ATRP	DMAEMA	Responsivity	70
NCC	ATRP	S	Pollutant removal/self ordering	35,36
MCC	ATRP	MMA, S	Aggregation/self-assembly	38,39
Filter paper	RAFT	DMAEMA	Antibacterial	65,67
Filter paper	RAFT	S, SS	Hydrophobicity	52,57,58
Cotton Fibers	RAFT	MA, MMA, S	Hydrophobicity	50,51
Ramie fibers	RAFT	MA, MMA	Hydrophobicity	53
Ramie fibers	RAFT	TFEMA	Hydrophobicity	54
Ramie fibers	RAFT	S, p-chlorostyrene	Hydrophobicity	55
