



Supporting Information

for

Topochemical engineering of composite hybrid fibers using layered double hydroxides and abietic acid

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Additional experimental data

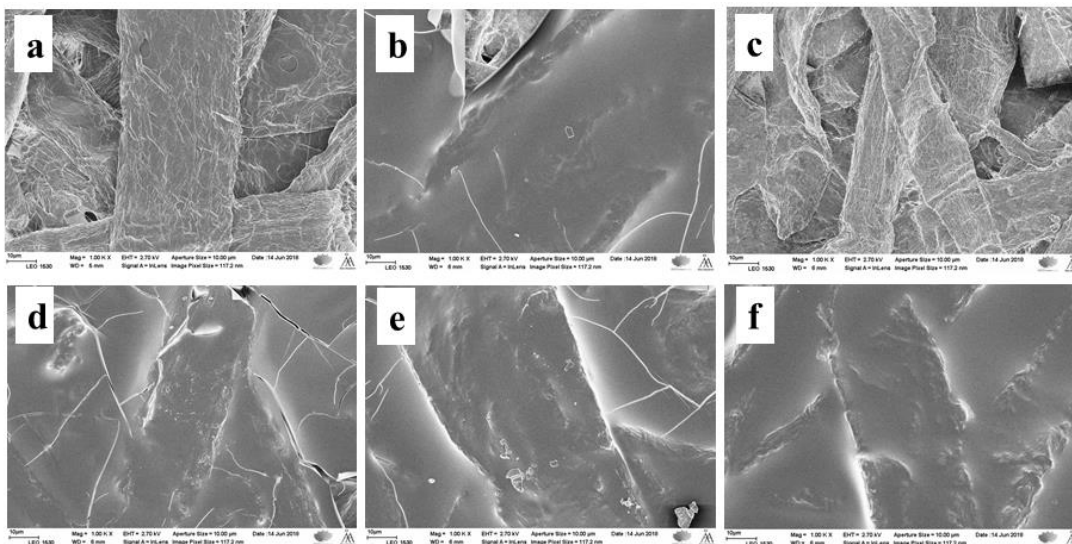


Figure S1: SEM images of the BKP fibres (a) REF (b) C-F (c) HF (d) C-HF (0.15 M) (e) C-HF (0.30 M) (f) C-HF (0.45 M).

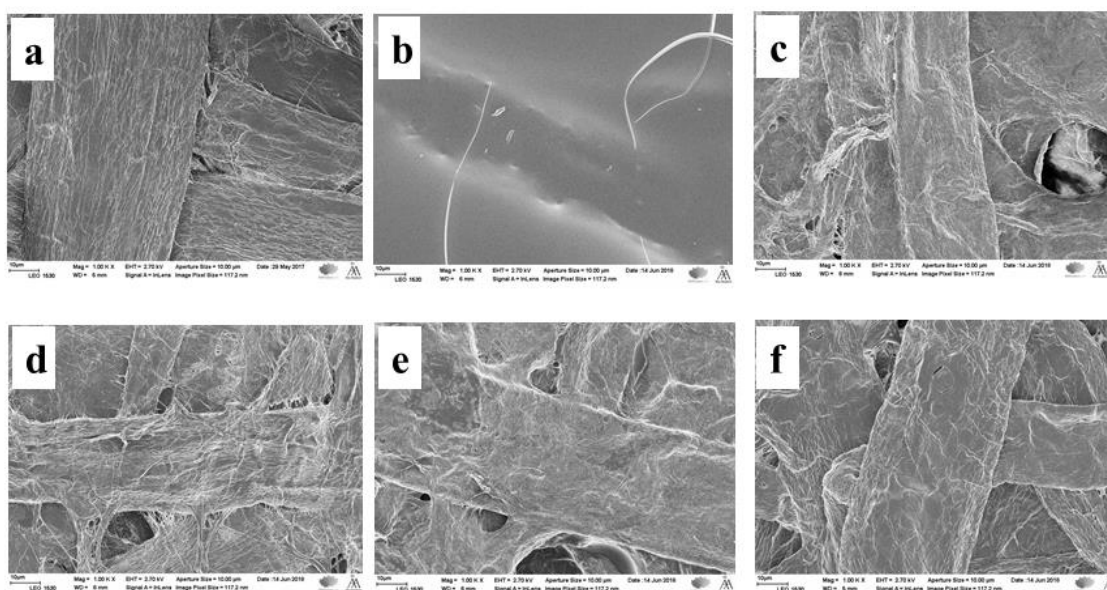


Figure S2: SEM images of the BKPR fibres (a) REF (b) C-F (c) HF (d) C-HF (0.15 M) (e) C-HF (0.30 M) (f) C-HF (0.45 M).

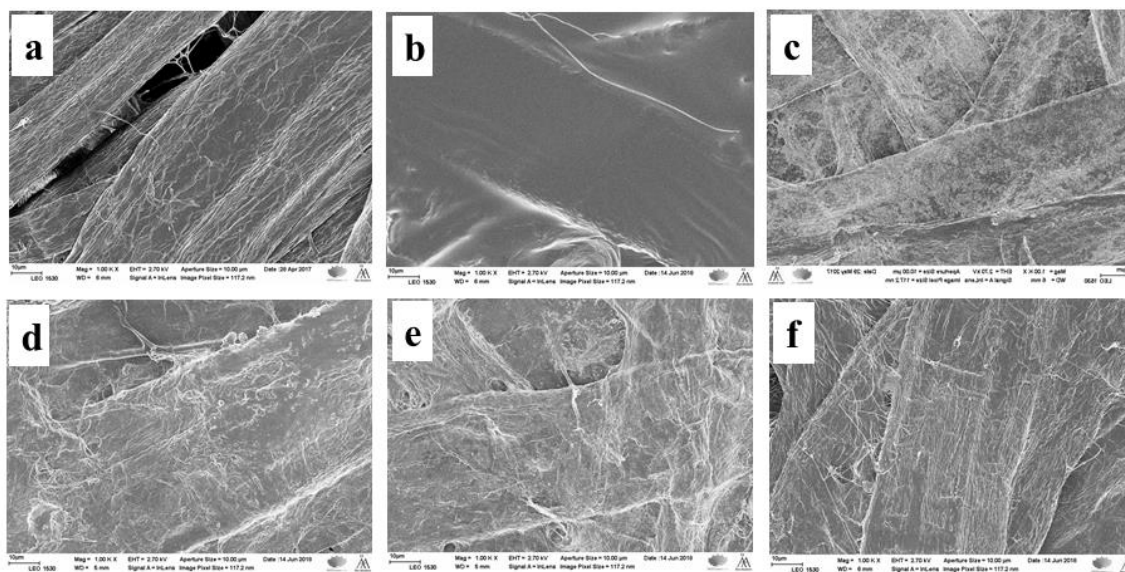


Figure S3: SEM images of the UBKP fibres (a) REF (b) C-F (c) HF (d) C-HF (0.15 M) (e) C-HF (0.30 M) (f) C-HF (0.45 M).

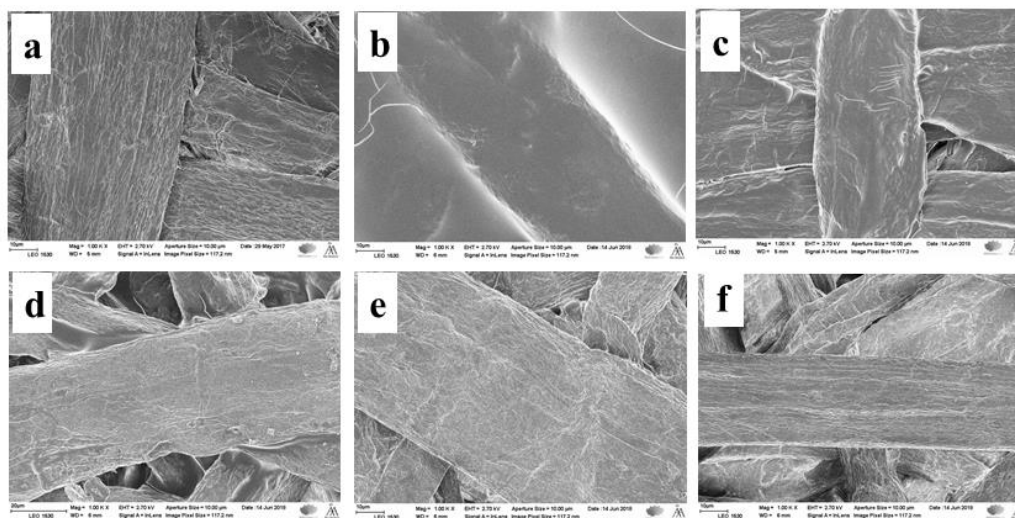


Figure S4: SEM images of the UBKPR fibres (a) REF (b) C-F (c) HF (d) C-HF (0.15 M) (e) C-HF (0.30 M) (f) C-HF (0.45 M).

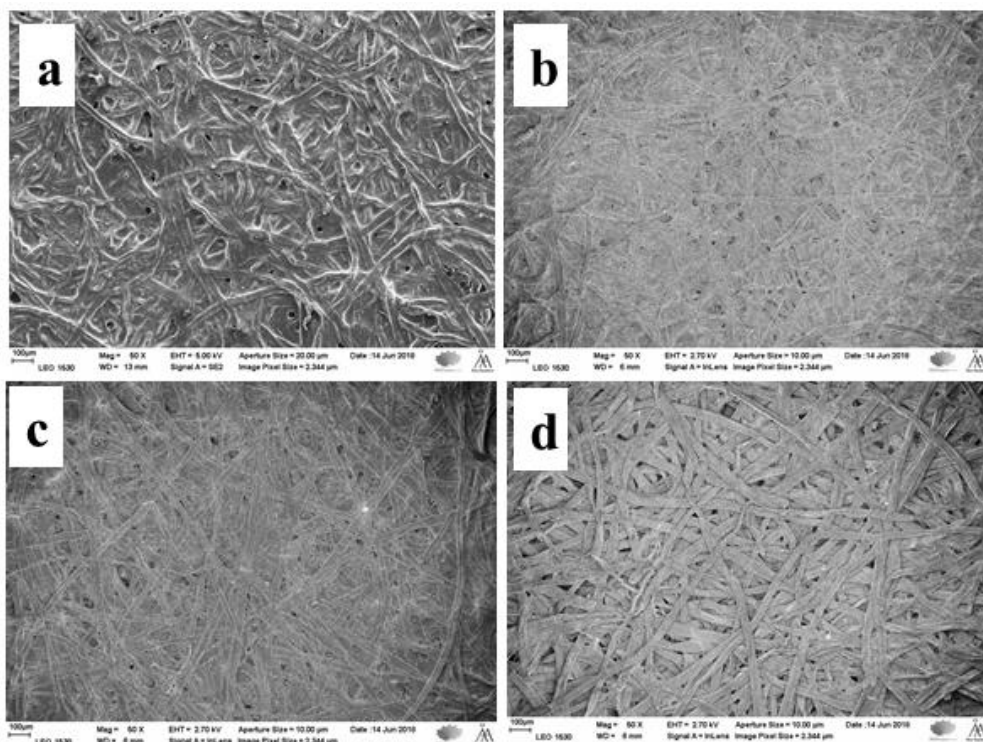


Figure S5: SEM images of C-HF under same grafting conditions (a) BKP (b) BKPR (c) UBKP (d) UBKPR.

Table S1: Tensile strength index of pulp fibers.

Material	Tensile strength index (kNm kg ⁻¹)			
	BKP	BKPR	UBKP	UBKPR
REF	16.21	50.18	8.93	72.10
C-F	16.73	61.84	19.22	62.41
HF	10.21	24.91	9.306	39.04
C-HF (0.15M)	20.40	49.57	21.88	37.68
C-HF (0.30M)	23.09	35.53	24.28	43.74
C-HF (0.45M)	30.75	30.00	21.11	41.26

Table S2: ISO brightness of pulp fibers.

Material	ISO brightness (%)			
	BKP	BKPR	UBKP	UBKPR
REF	84.80	83.96	27.15	21.54
C-F	74.95	66.09	9.31	ND
HF	85.16	81.67	21.99	22.70
C-HF (0.15M)	34.09	43.40	18.65	ND
C-HF (0.30M)	39.58	25.34	12.81	ND
C-HF (0.45M)	34.34	34.17	13.21	ND