

Supporting Information for

The pretreatment of softwood chips and pellets by alkali sulfonation and thermomechanical pulping and its influence on lignin redistribution and the enzyme mediated hydrolysis of the cellulose component

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Table S1 Elemental analysis of alkaline sulfonated and steam (ST) and hot water

(LHW) pretreated softwood chips and pellets

Sample		Elemental composition (%)				
		C	H	O	N	S
Chips	ST	46.39	6.08	44.28	0.00	0.30
	LHW	47.07	6.07	44.23	0.10	0.19
Pellet	ST	46.51	6.15	44.58	0.05	0.12
	LHW	46.15	6.19	45.41	0.00	0.30

Table S2 Internal linkages of EMAL obtained from softwood chips and pellets, detected

by 2D-HSQC NMR.

Sample	Interlinkages		
	(per 100 aromatic rings)		
	β -O-4	β -5	β - β
Chips			
EMAL	39.5	3.2	0.0
Pellet			
EMAL	34.0	2.8	0.9