Electronic Supplementary Material (ESI) for RSC Advances

Lignin depolymerization *via* an integrated approach of anode oxidation and electro-generated H_2O_2 oxidation

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Supporting Information

Table S1. (a) Elemental composition and (b) Functional Groups (% (w/w) on dry matter) of original lignin and the extraction residues of the three methods

(a)	Elemental composition (%)		
	C	H	O
Original lignin	62.09	5.94	31.97
Residue of H_2O_2 oxidation	63.39	5.75	30.86
Residue of anode oxidation	64.24	5.50	30.26
Residue of integrated approach	65.47	5.35	29.18

(b)	Functional groups (%)				
	OH_{alip} [a]	OH_{phen} [b]	CO [c]	COOH	OCH_3
Original lignin	5.25	3.50	5.85	3.14	11.26
Residue of H_2O_2 oxidation	6.10	4.07	6.13	3.48	10.50
Residue of anode oxidation	6.34	4.08	7.01	4.11	8.76
Residue of integrated approach	7.35	5.02	7.81	4.89	7.93

[a] phenolic hydroxyl; [b] aliphatic hydroxyl; [c] carbonyl group;
[d] the molecular weight of C9 expanded formula