Co-hydrothermal Liquefaction of Lignocellulosic Biomasses in Supercritical water

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Supplementary material

Table S2. Peak area of organic compounds.

S. No.	Compound catergories	PW (%)	PW+EU (%)	PW+ST (%)	ST+EU (%)	PW+ST+EU (%)
1	n-aliphatics	5.69	-	3.08	1.15	1.99
2	i-aliphatics	1.68	1.32	3.06	1.20	1.97
3	Olefins	3.02	3.45	5.17	3.91	7.25
4	Phenol derivatives	35.01	47.40	31.59	45.38	37.26
5	Aromatics	15.14	19.58	14.38	24.66	17.12
6	Alcohols/ Ethers	5.73	3.44	5.44	1.05	6.06
7	Ketones/ Aldehydes	20.12	19.26	26.39	15.85	23.51
8	Carboxylic acids/Esters	10.35	3.49	6.36	5.53	3.92
9	N-Compound	3.26	2.08	4.53	1.27	0.91

Table S2. Organic compounds divided into different categories.

Compound categories	WS	EU	PW	PW+EU	PW+WS	WS+EU	PW+WS+EU
n-aliphatics	Hexadecane	n-Hexadecanoic acid	Pentadecane Hexadecane	-	Nonadecane Heptacosane	Heptadecane Eicosane	Heneicosane Heptadecane
i-aliphatics	Octadecane, 3-ethyl-5-(2-ethylbutyl)-	Octadecane, 3-ethyl-5-(2-ethylbutyl)- Octane, 4-methyl-	Octane, 2,4,6-trimethyl- Cyclooctene, 1,2-dimethyl-	Cyclopropane, nonyl-	Undecane, 2-methyl- Dodecane, 2-methyl-	Heptadecane, 9-hexyl- Octadecane, 2-methyl-	Cyclopropane, nonyl- Eicosane, 2-methyl-
Olefins	2-Octene 1-Methylcyclooctene	2-Octene 1-Methylcyclooctene	1-Methylcyclooctene 1,5,5-Trimethyl-6-methylene-cyclohexene	cis-3-Nonene Deltacyclene	1-Methylcyclooctene Cyclooctene, 1,2-dimethyl-	7-Heptadecene, 17-chloro- 1-Nonadecene	Deltacyclene Cyclooctene, 1,2-dimethyl-
Phenol derivatives	Phenol, 2-methyl- Phenol, 3-ethyl-	Phenol, 2-methyl- Phenol, 2,3,6-trimethyl-	Butylated Hydroxytoluene Benzofuran, 2,3-dihydro-2,2,4,6-tetramethyl-	Phenol, 2-methyl- Phenol, 3-methyl-	Phenol Phenol, 2-methyl-	Phenol, 2-methyl- p-Cresol	Butylated Hydroxytoluene Phenol, 2-(2-penten-4-yl)-4-methyl-
Aromatics	Benzene, 1,3-bis(1,1-dimethylethyl)- 1,3-Benzenediol, 4-propyl-	Butylated Hydroxytoluene 1-Naphthol, 2,5,8-trimethyl-	Benzene, 1-(2-butenyl)-2,3-dimethyl- Benzene, hexamethyl-	Ethanone, 1-(2,4-dimethylphenyl)- Benzene, 3-ethyl-1,2,4,5-tetramethyl-	2-Ethyl-3-methylene-indan-1-one 9-Ethyl-10-methylanthracene	Benzene, 1,2,3-trimethyl- Benzene, 2-propenyl-	Benzene, hexamethyl- Benzene, 3-ethyl-1,2,4,5-tetramethyl-
Alcohols/ Ethers	Cyclohexanol, 3,3,5-trimethyl-	2,5-Dimethoxybenzyl alcohol	1,3-Cyclohexadiene-1-methanol, à,2,6,6-tetramethyl	5,7-Dodecadiyn-1,12-diol	3,5-Heptadien-2-ol, 2,6-dimethyl-	9-Methyltricyclo[4.2.1.1(2,5)]deca-3,7-diene-9,10-diol	2-Pentyn-1-ol 2,4-Pentadien-1-ol, 3-propyl-, (2Z)-

	cis-4-Decenal		Falcarinol	9-Heptadecene-4,6-diyn-8-ol, (Z)-	1,3-Cyclohexadiene-1-methanol,4-(1-methylethyl)-	Oxacyclotetradeca-4,11-diyne	
Ketones/ Aldehydes	2-Butanone 3-Ethylcyclopentanone	2-Pentanone, 4-hydroxy-4-methyl- 2-Cyclopenten-1-one, 2-methyl-	Cyclopentanone Cyclopentanone, 2-methyl-	Cyclopentanone, 2-methyl- 2-Pentanone, 4-hydroxy-4-methyl-	2-Pentanone, 4-hydroxy-4-methyl- 2-Cyclopenten-1-one, 2-methyl-	Cyclopentanone, 2-methyl- 2-Pentanone, 4-hydroxy-4-methyl-	2-Cyclopenten-1-one, 2,3,4,5-tetramethyl- Cyclopentanone, 2,5-dimethyl-
Carboxylic acids/Esters	Acetic acid n-Hexadecanoic acid	Acetic acid Butanoic acid	Geranyl isovalerate 2,5-Octadecadiynoic acid, methyl ester	Methyl 4,6-tetradecadiynoate 2,5-Octadecadiynoic acid, methyl ester	Dodecyl acrylate Pentadecanoic acid	Butanoic acid 2,5-Octadecadiynoic acid, methyl ester	2,5-Octadecadiynoic acid, methyl ester Methyl 5,7-hexadecadiynoate
N-Compound	9-Octadecenamide	9-Octadecenamide, (Z)- Fenretinide	4-(2,5-Dihydro-3-methoxyphenyl)butylamine 4-(2,5-Dihydro-3-methoxyphenyl)butylamine	4-(2,5-Dihydro-3-methoxyphenyl)butylamine Morphinan-4,5-diol-6-one, 1-bromo-	4-(2,5-Dihydro-3-methoxyphenyl)butylamine 9-Octadecenamide, (Z)-	4-(2,5-Dihydro-3-methoxyphenyl)butylamine	4-(2,5-Dihydro-3-methoxyphenyl)butylamine