

Catalytic Hydrodeoxygenation of Vanillin, a Bio-oil Model Compound over Renewable Ni/Biochar Catalyst

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Table S1 shows the Design of Experiment (DOE) matrix, vanillin conversion and corresponding p-cresol yields. **Figure S1** shows the SEM-EDX of the biochar and the compositional element mapping.

Table S1: DOE matrix and results obtained from Hydrodeoxygenation of Vanillin to p-cresol

Exp. no.	Temperature (°C)	Pressure (bar)	Catalyst (g)	VL Conv. (%)	P-cresol yield (%)
1	100	30	0.6	11.80	5.11
2	150	30	0.6	71.80	62.61
3	100	50	0.6	26.30	12.48
4	150	50	0.6	97.00	91.17
5	100	40	0.4	20.60	13.28
6	150	40	0.4	87.70	83.15
7	100	40	0.8	23.70	15.30
8	150	40	0.8	95.10	87.30
9	125	30	0.4	25.50	18.23
10	125	50	0.8	48.20	33.78
11	125	30	0.8	35.50	22.29
12	125	50	0.8	52.66	44.46
13	125	40	0.6	41.40	32.70
14	125	40	0.6	40.19	34.44
15	125	40	0.6	44.80	35.15

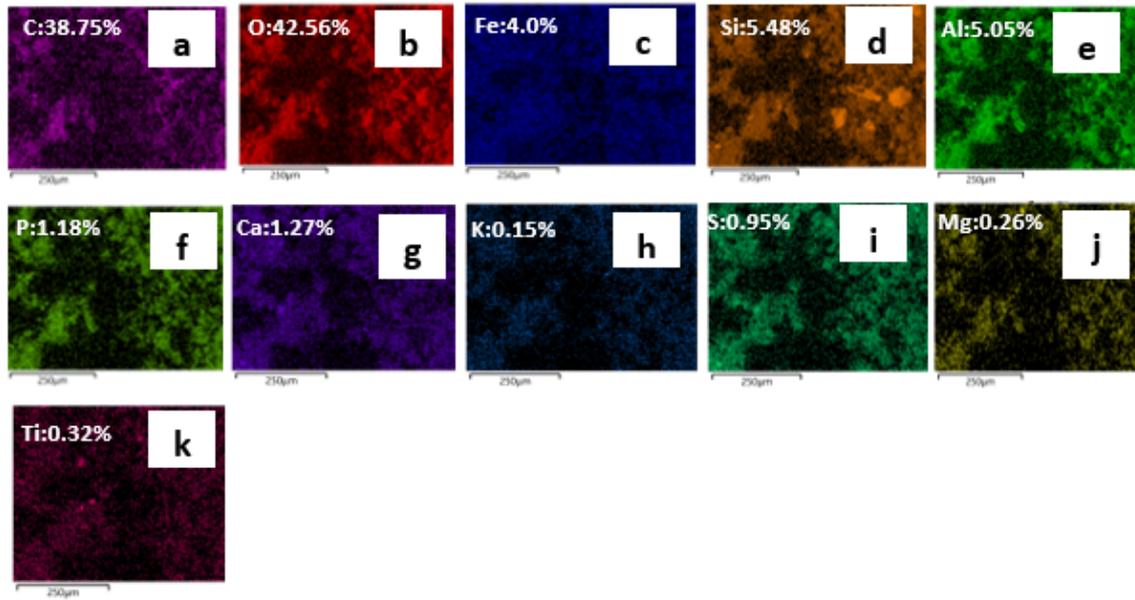


Figure S1. SEM-EDX analysis of biochar