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Supplementary information

Hydrothermal carbonization of sewage sludge: Effect of inorganic salts on hydrochar's physicochemical properties

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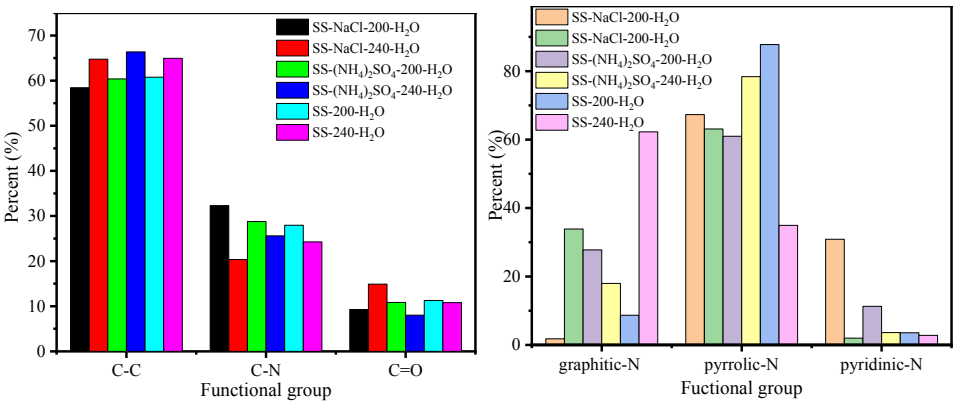

Figure S1.The content of functional groups.

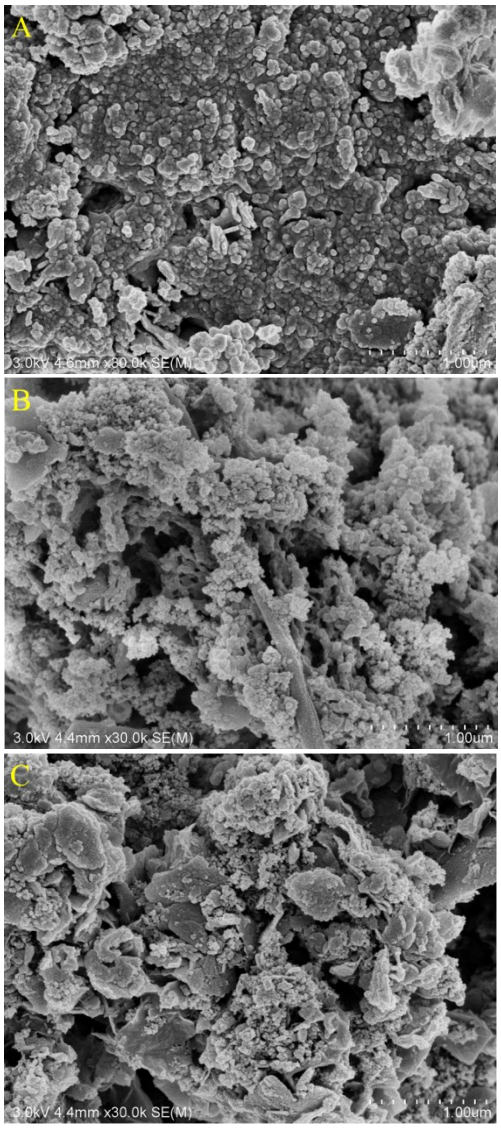

Figure S2.The SEM of hydrochar with and without inorganic salt.
(A:SS-hydrochar; B:SS-hydrochar with NaCl; C:SS-hydrochar with $(NH_4)_2SO_4$)

Table S1 the main compounds of SS-200.

No.	R.T. (min)	Peak area (%)	Compounds
1.	1.747	7.24	Acetaldehyde
2.	1.900	2.04	1,3-Pentadiene
3.	5.096	4.65	Toluene
4.	5.473	4.66	Pyridine
5.	8.926	1.78	Styrene
6.	16.825	1.13	Phenol
7.	19.242	2.77	p-Cresol
8.	25.314	1.59	Indole
9.	27.18	1.92	1H-Indole, 3-methyl-
10.	33.044	9.96	D-Allose
11.	37.877	6.79	n-Hexadecanoic acid

Table S2 the main compounds of SS-240.

No.	R.T. (min)	Peak area (%)	Compounds
1.	1.747	5.53	Methanethiol
2.	1.894	2.00	1,3-Pentadiene
3.	2.052	1.04	2-Propenal
4.	3.88	1.30	Propanenitrile, 2,2-dimethyl-
5.	5.091	6.53	Toluene
6.	19.226	4.37	p-Cresol
7.	32.946	9.92	D-Allose
8.	37.856	15.79	n-Hexadecanoic acid
9.	41.352	5.27	Octadecanoic acid

Table S3 the main compounds of SS-NaCl-200.

No.	R.T. (min)	Peak area (%)	Compounds
1.	1.742	5.73	Acetaldehyde
2.	1.894	1.21	1,2-Butadiene, 3-methyl-
3.	2.053	1.47	2-Propenal
4.	5.097	3.43	Toluene
5.	19.231	1.92	p-Cresol
6.	33.181	3.65	D-Allose
7.	37.67	1.84	cis-9-Hexadecenoic acid
8.	37.872	10.18	n-Hexadecanoic acid
9.	41.358	3.97	Octadecanoic acid

Table S4 the main compounds of SS-NaCl-240.

No.	R.T. (min)	Peak area (%)	Compounds
1.	1.676	5.31	1-Propene, 2-methyl-
2.	1.747	4.69	Methanethiol
3.	2.052	2.05	1-Buten-3-yne, 2-methyl-
4.	5.102	4.89	Toluene
5.	8.931	2.00	Styrene
6.	19.226	3.21	p-Cresol
7.	32.984	15.93	D-Allose
8.	37.665	2.45	cis-9-Hexadecenoic acid
9.	41.194	2.30	Oleic Acid
10	41.352	6.19	Octadecanoic acid

Table S5 the main compounds of SS-$(NH_4)_2SO_4$-200.

No.	R.T. (min)	Peak area (%)	Compounds
1.	1.671	4.63	2-Butene, (Z)-
2.	1.741	8.06	2-Propanamine
3.	2.047	3.44	2-Propenal
4.	5.096	4.53	Toluene
5.	8.926	2.61	Styrene
6.	10.939	2.21	Isocrotonic acid
7.	19.231	2.91	p-Cresol
8.	32.979	12.08	D-Allose
9.	37.856	11.66	n-Hexadecanoic acid
10.	41.347	3.13	Octadecanoic acid

Table S6 the main compounds of SS-$(NH_4)_2SO_4$-240.

No.	R.T. (min)	Peak area (%)	Compounds
1.	1.67	7.29	1-Propene, 2-methyl-
2.	1.747	5.56	Acetaldehyde
3.	2.047	3.11	2-Propenal
4.	5.096	4.98	Toluene
5.	32.962	18.89	D-Allose
6.	37.659	2.35	cis-9-Hexadecenoic acid
7.	37.845	16.44	n-Hexadecanoic acid
8.	41.341	4.26	Octadecanoic acid
9.	42.934	1.95	Hexadecanamide