

## Supplement Information

### **The influence of the size of aromatic monomers on the structure and catalytic activity of polymer solid acids**

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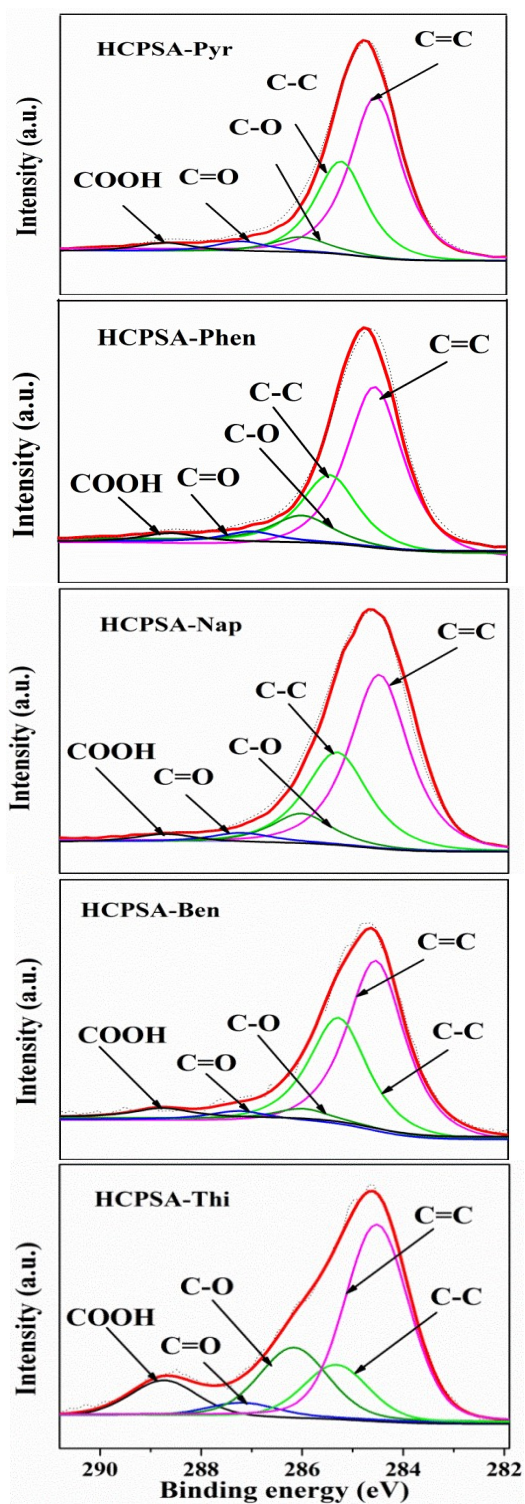


Fig. S1. C 1s patterns of HCPSAs

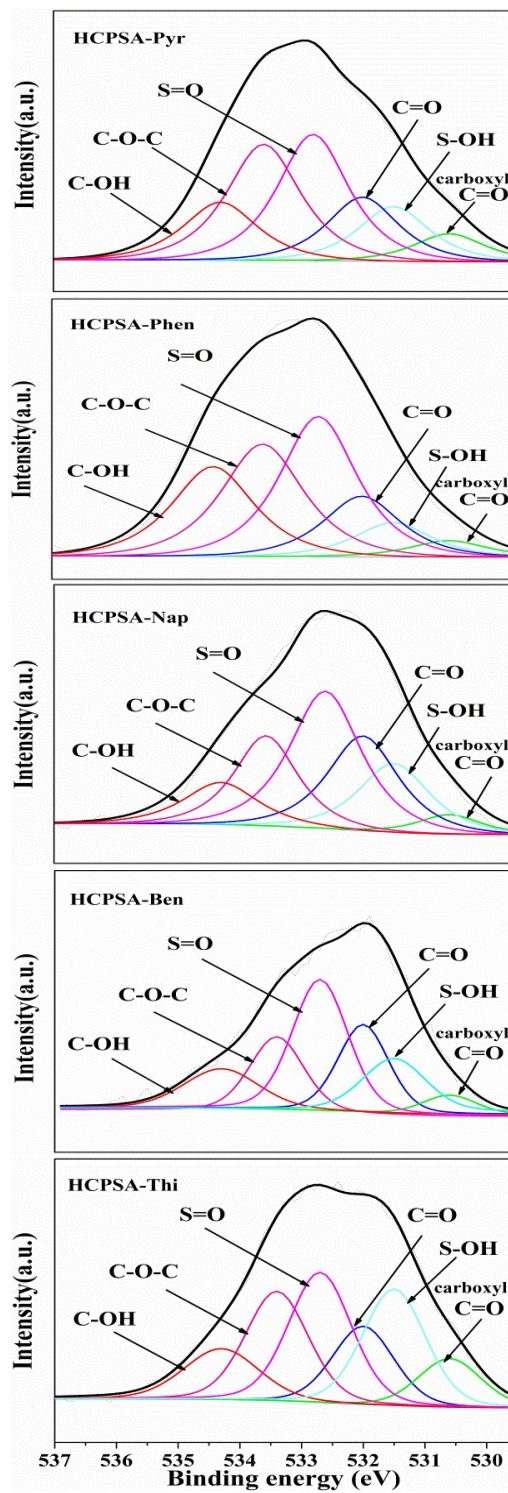


Fig. S2. O 1s patterns of HCPSAs

**Table S1. The percentage of different types of carbon in carbon atoms and the percentage of carbon atoms in total atoms**

Catalysts	C (At.%)					Carbon atom/ Total atom (At.%)
	sp <sup>2</sup> C	C-C	C-O	C=O	-COOH	
HCPSA-Pyr	64.82	24.07	7.55	2.67	0.89	84.22
HCPSA-Phen	59.72	27.08	8.83	2.51	1.86	82.32
HCPSA-Nap	56.39	31.12	8.05	2.81	1.63	80.50
HCPSA-Ben	53.52	36.58	5.88	2.57	1.45	79.45
HCPSA-Thi	51.95	18.09	21.84	3.78	4.34	76.71

**Table S2. Percentage of different types of oxygen in oxygen atoms and the percentage of oxygen atoms in total atoms**

Catalysts	O (At.%)						Oxygen atom/ Total atom (At.%)
	C-OH	C-O-C	S=O	C=O	S-OH	-COOH	
HCPSA-Pyr	31.79	38.91	12.57	6.18	8.74	1.81	14.88
HCPSA-Phen	24.18	30.28	17.41	15.32	8.68	4.13	16.71
HCPSA-Nap	20.94	15.08	25.44	24.84	11.18	2.52	18.24
HCPSA-Ben	16.10	6.25	29.34	23.41	23.15	1.75	18.88
HCPSA-Thi	11.60	29.23	14.25	25.53	8.32	11.07	19.23