



## Supporting Information

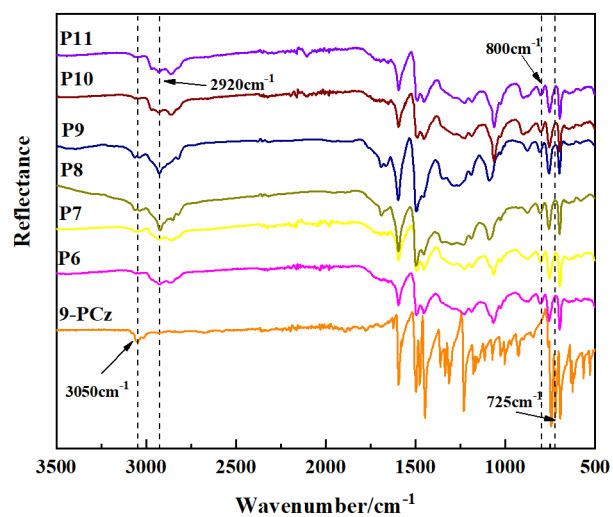
for

### **Carbazole-functionalized hyper-cross-linked polymers for CO<sub>2</sub> uptake based on Friedel–Crafts polymerization on 9-phenylcarbazole**

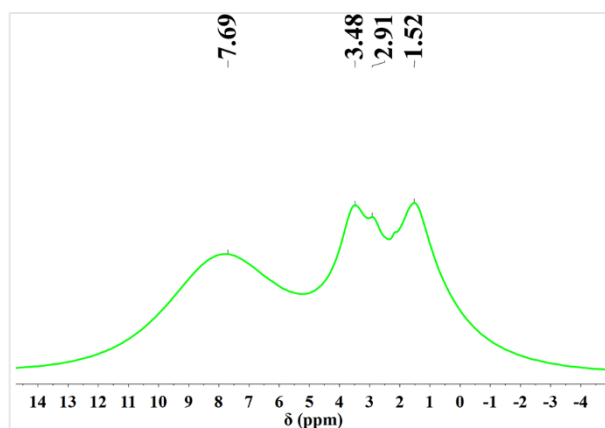
Dandan Fang, Xiaodong Li, Meishuai Zou, Xiaoyan Guo and Aijuan Zhang

*Beilstein J. Org. Chem.* **2019**, *15*, 2856–2863. [doi:10.3762/bjoc.15.279](https://doi.org/10.3762/bjoc.15.279)

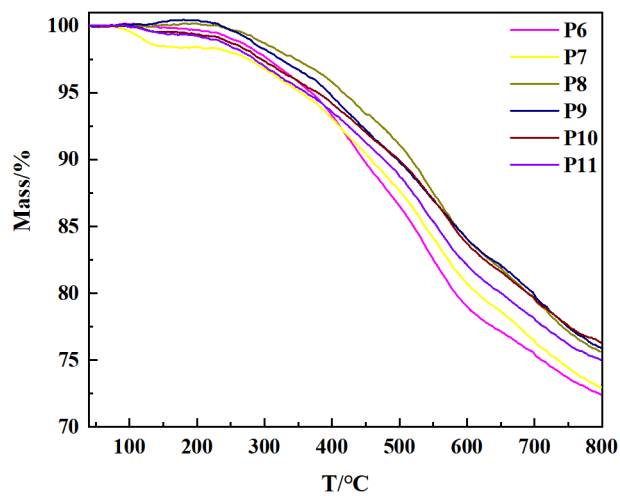
## Additional experimental results



**Figure S1:** FTIR spectrum of HCPs **P6–P11** and 9-PCz.



**Figure S2:** Solid <sup>1</sup>H NMR spectrum of **P3**.

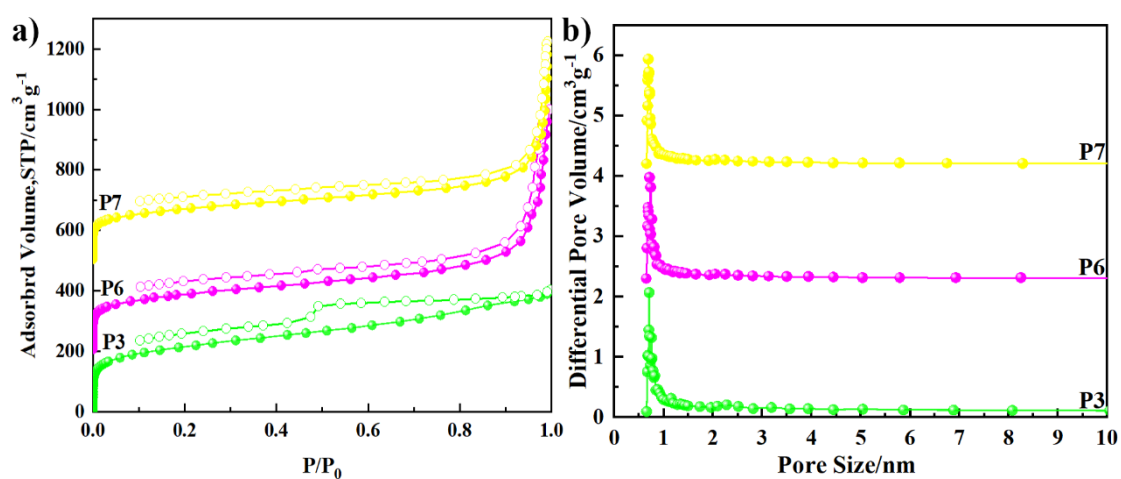


**Figure S3:** TGA curves of HCPs **P6–P11**.

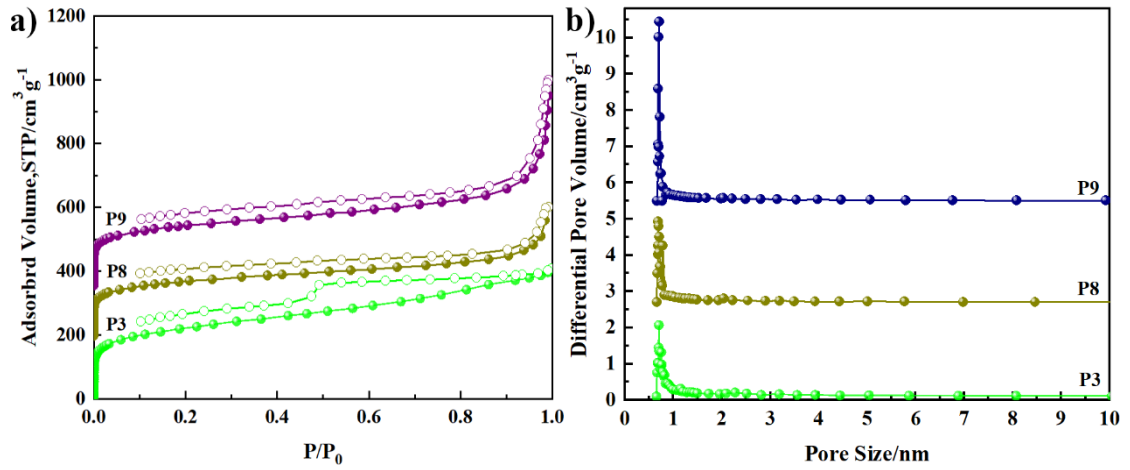
**Table S1:** The thermal stability of HCPs.

HCPs	Decomposition temperature <sup>a</sup> /°C	Mass residues/%
P1	594	80
P2	301	74
P3	364	74
P4	274	69
P5	273	68
P6	370	72
P7	354	73
P8	417	75
P9	396	76
P10	380	76
P11	362	75

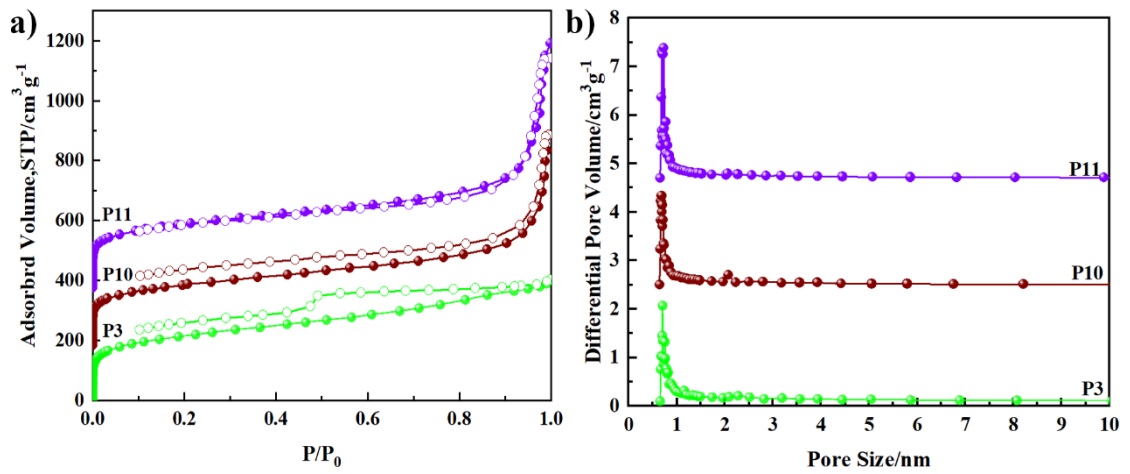
<sup>a</sup>Decomposition temperature is the 5 wt % weight loss temperature for HCPs.



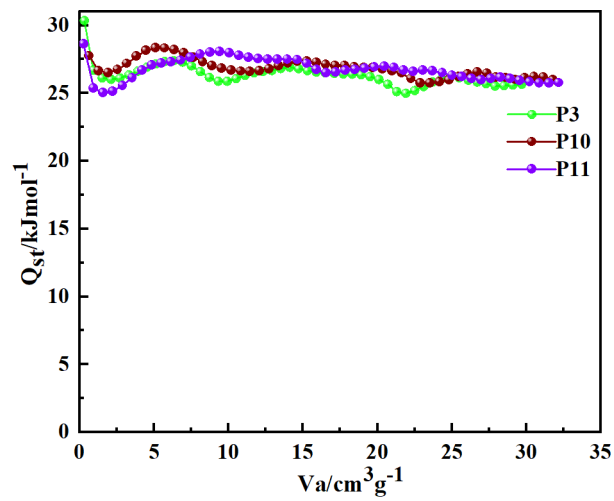
**Figure S4:** Nitrogen sorption isotherms (a) and pore size distribution (b) of P3, P6, P7.



**Figure S5:** Nitrogen sorption isotherms (a) and pore size distribution (b) of **P3, P8, P9**.



**Figure S6:** Nitrogen sorption isotherms (a) and pore size distribution (b) of **P3, P10, P11**.



**Figure S7:** the isothermic heat curves of **P3, P10, P11**.