

Supporting Information

Direct Electrical Sensing of Iodine Gas by a Covalent Organic Frameworks-Based Sensor

Wanshuang Zhou ¹, Chun Kang ¹, Cong Yu ¹, Zhaojie Cui ¹ and Xinbo Wang ^{1,2,*}

¹ School of Environmental Science and Engineering, Shandong Key Laboratory of Environmental Processes and Health, Shandong University, No. 72 Binhai Road, Qingdao 266237, China

² Shenzhen Research Institute, Shandong University, Virtual University Park, Nanshan District, Shenzhen 518057, China

* Correspondence: wangxb@sdu.edu.cn

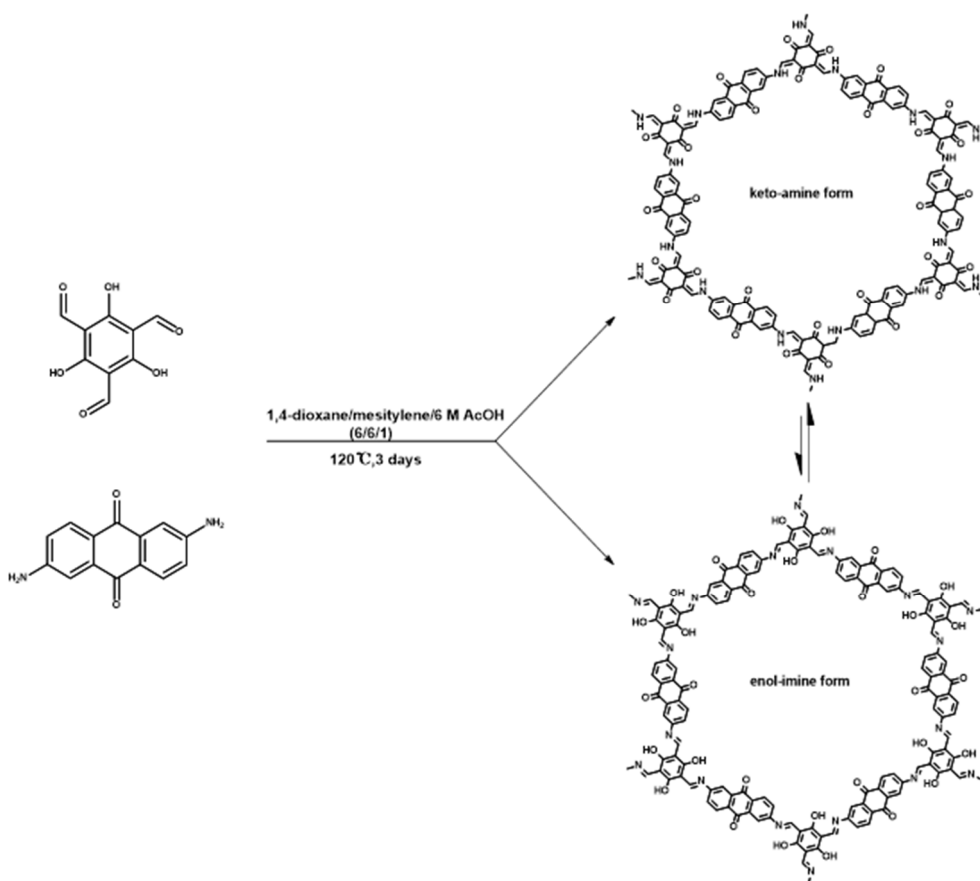


Figure S1. Synthesis of the AQ-COF.

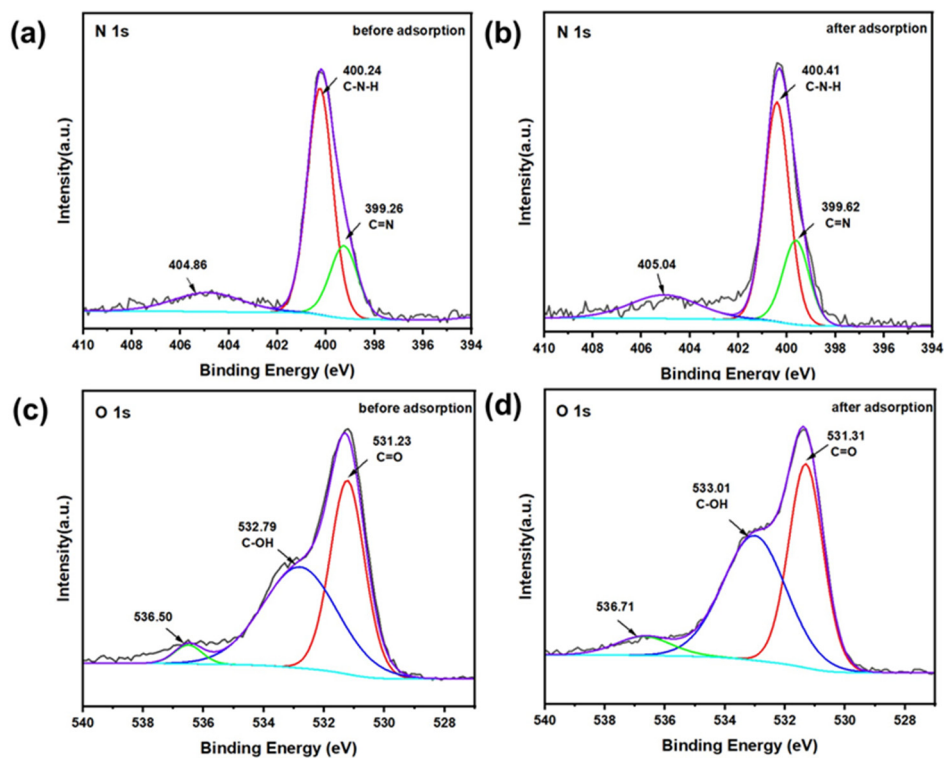


Figure S2. N1s (a,b) and O1s(c,d) spectra of AQ-COF before and after adsorption of iodine.

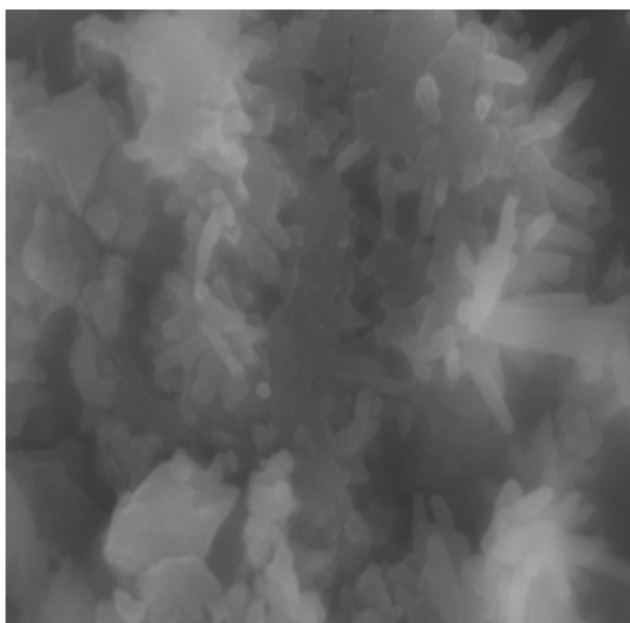


Figure S3. SEM image of AQ-COF.

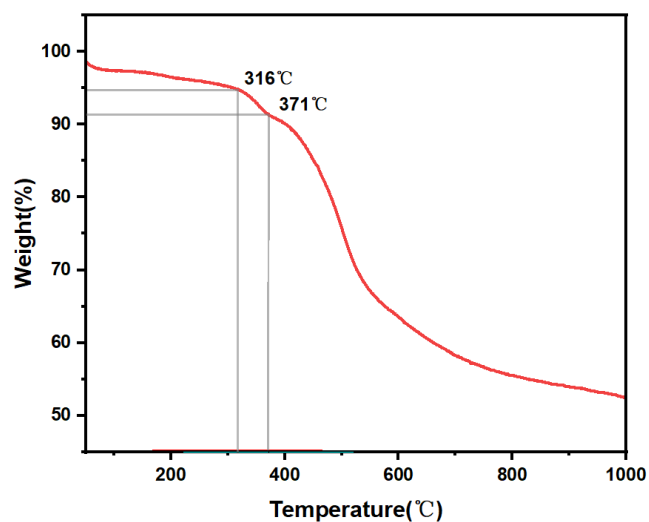


Figure S4. TG analysis of AQ-COF.

Table S1. Iodine adsorption and selectivity comparison of COF.

Materials	Temperature	Time	Iodine uptake	Ref
COF-PA	77 °C	16 h	4470 mg·g ⁻¹	[27]
HDADE	77 °C	60 h	5220 mg·g ⁻¹	[38]
TTA-FMTA-COF	77°C	24h	5070 mg·g ⁻¹	[39]
DbTd-COF	75 °C	24 h	4930 mg·g ⁻¹	[40]
hydrazide-MTH-TFPB	75 °C	61 h	3050 mg·g ⁻¹	[41]
TGDM	150 °C	10 h	292 mg·g ⁻¹	[42]
AQ-COF	70 °C	6 h	470 mg·g⁻¹	This work

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(numbered as in the main file)

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