## Supporting information for

# Copper-Containing Porous Carbon Derived from MOF-199 for Dibenzothiophene Adsorption 

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Scheme S.I. 1 Schematic procedure for porous carbon from MOF-199

## Figure captions:

Fig. S.I. 1 Langmuir linear model of DBT on the FPC-1 in ALO, ARO and MIO, respectively.

Fig. S.I. 2 Freundlich linear model of DBT on the FPC-1 in ALO, ARO and MIO, respectively.


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## Table captions:

Table S.I. 1 Comparison of sulfur adsorption capacity
Table S.I. 2 Constants and correlation coefficients of Langmuir and Freundlich models.

Table S.I. 1 Comparison of sulfur adsorption capacity

| Adsorbents | Solvents | $q_{\max }(\mu \mathrm{gS} / \mathrm{g})$ | References |
| :---: | :---: | :---: | :---: |
| FPC-1 | ALO | 59.1 | this work |
| FPC-1 | ARO | 28.9 | this work |
| FPC-1 | MIO | 40.9 | this work |
| Activated carbon | n-octane | 28.9 | $[31]$ |
| $\mathrm{Cu}(\mathrm{I})$-Y zeolite | n-octane | 32.6 | $[32]$ |
| Co-Y zeolite | n-octane | 29.4 | $[32]$ |
| Ce/Ni-Y zeolite | n-octane | 22.2 | $[33]$ |
| Activated Al $\mathrm{O}_{3}$ | n-hexane | 21.0 | $[34]$ |
| CMK-3 | n-hexane | 10.9 | $[35]$ |
| ZIF-8-derived | n-hexane | 26.7 | $[36]$ |
| ZIF-8-derived | n-hexane: Para-xylene $(9: 1)$ | 22.2 | $[36]$ |

*All the sulfur uptake capacity is the content of sulfur element ( $\mu \mathrm{gS} / \mathrm{g}$ ).

Table S.I. 2 Constants and correlation coefficients of Langmuir and Freundlich models.

| Model oil | Langmuir |  |  | Freundlich |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $q_{L}(\mathrm{mg} / \mathrm{g})$ | $K_{\mathrm{L}}(\mathrm{L} / \mathrm{g})$ | $R^{2}$ | $R_{\mathrm{L}}$ | $K_{\mathrm{f}}(\mathrm{L} / \mathrm{mg})$ | $1 / n$ | $R^{2}$ |
| ALO | 59.10 | 1.12 | 0.9999 | 0.427 | 37.34 | 0.097 | 0.9324 |
| ARO | 28.87 | 0.78 | 0.9997 | 0.517 | 16.28 | 0.112 | 0.9883 |
| MIO | 40.87 | 0.55 | 0.9998 | 0.602 | 28.22 | 0.069 | 0.9957 |

