Supporting information

Fabrication of Mesoporous Polymer Monolith: A Template-Free Approach

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| | | | | | | DMS | SO Co | mposi | ition (| Volur | ne %) |) | | | | |
|--------------------------|-----|----|----|----|----|-----|-------|-------|---------|-------|-------|----|----|----|----|----|
| | | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 |
| AN concentration (mg/mL) | 40 | Ι | | | | D | | | | | D | | | | | |
| | 80 | Ι | В | В | В | В | В | В | В | В | В | D | D | D | D | D |
| | 100 | | | | | В | | | | | В | | | | | |
| | 120 | | | | | B/C | | | | | В | | | | | |
| | 140 | | | | | С | | | | | С | | | | | |
| | 160 | Ι | Ι | С | С | С | С | С | С | С | С | В | В | | D | D |
| | 180 | | | | | С | | | | | С | | | | | |
| | 200 | | | | | С | | | | | С | | | | | |
| | 220 | | | | | С | | | | | С | | | | | |
| P | 240 | | | | | С | | | | | С | | С | | | |

Table S1

I: PAN was Insoluble at any temperature

D: PAN was dissolved at any temperature

B: Porous PAN with Bicontinuous structure was obtained

C: Porous PAN with Closed pore was obtained

Table S2

| Sample | ł | BET Surface Area | | |
|--------|--------------------|------------------|----------------------------|-----------------------------------|
| | Ar/CO ₂ | Temperature (K) | Hold Time ^a (h) | (m ² g ⁻¹) |
| C1 | 100/0 | 1573 | 0 | 19 |
| C2 | 100/0 | 1173 | 1 | 1 |
| C3 | 75/25 | 1173 | 1 | 970 |
| C4 | 75/25 | 1173 | 2 | 1300 |

^aHold time = Duration for which the sample was maintained at the heating temperature

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Figure S1

SEM image of activated carbon monolith



Figure S2

Nitrogen-adsorption desorption isotherm of activated carbon monolith

