Electronic Supplementary Information (ESI)

Monolithic Carbon Xerogels via with Co-continuous Hierarchical Porosity via One-step, Template- and Catalyst-Free Hydrothermal Reaction with Resorcinol and Formaldehyde

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Fig. S1. Photo of monolithic RF (left) and carbon (right) xerogel.
Table S1. Characteristics of monolithic carbon xerogels at R/W=45.

| Sample | $S^a$ (m$^2$ g$^{-1}$) | $V_{total}^b$ (cm$^3$ g$^{-1}$) | $V_{micro}^c$ (cm$^3$ g$^{-1}$) | $D_p^d$ (nm) |
|--------|----------------------|-------------------------------|-------------------------------|-------------|
| 45-2.2 | 633                  | 0.247                         | 0.225 (91.1%)                | 1.61        |
| 45-2.4 | 631                  | 0.292                         | 0.221 (75.7%)                | 1.85        |
| 45-2.6 | 623                  | 0.352                         | 0.216 (61.4%)                | 2.26        |
| 45-2.8 | 611                  | 0.398                         | 0.209 (52.5%)                | 2.76        |

$^a$Specific surface area by BET (Brunauer-Emmett-Teller) method.

$^b$Total pore volume obtained by total single point adsorption of the pores less than 300nm at $P/P_0=0.99$.

$^c$Micro-pore volume obtained by $t$-plot method.

$^d$Pore size distribution calculated by BJH(Barrett-Joyner-Halenda) method.
Table S2. Burn off ratio (%) of monolithic carbon xerogels from F/R of 2.2, 2.4, 2.6 and 2.8 at R/W=40 upon activation.

|       | 2.2 | 2.4 | 2.6 | 2.8 |
|-------|-----|-----|-----|-----|
| 2 h   | 37  | 35  | 33  | 29  |
| 4 h   | 63  | 60  | 57  | (48)|
| 6 h   | 80  | 79  | (77)| (70)|

( ) : crack generation upon activation
Table S3. Burn off ratio (%) of monolithic carbon xerogels from F/R of 2.2, 2.4, 2.6 and 2.8 at R/W=45 upon activation.

|       | 2.2 | 2.4 | 2.6 | 2.8 |
|-------|-----|-----|-----|-----|
| 2 h   | 32  | 30  | 29  | 27  |
| 4 h   | 59  | 55  | (51)| (48)|
| 6 h   | (73)| (70)| (69)| (64)|

( ) : crack generation upon activation