Electronic supplementary information (ESI) for

One-step solvothermal carbonization to microporous carbon materials derived from cyclodextrins

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Table S1 Results of the energy dispersive X-ray (EDX) analysis for **CDPC** (Atomic percentage)

Sample	Carbon	Oxygen	Sulfur
aCDPC	95.81	3.78	0.39
bCDPC	95.68	3.88	0.43
gCDPC	96.68	2.75	0.56
HMFPC	95.89	3.33	0.76

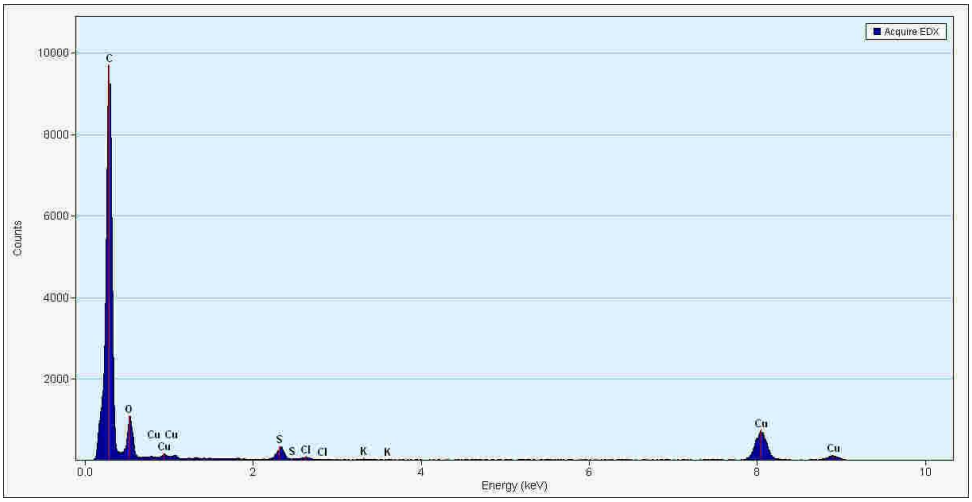

Fig. S1 EDX spectrum of **aCDPC**.

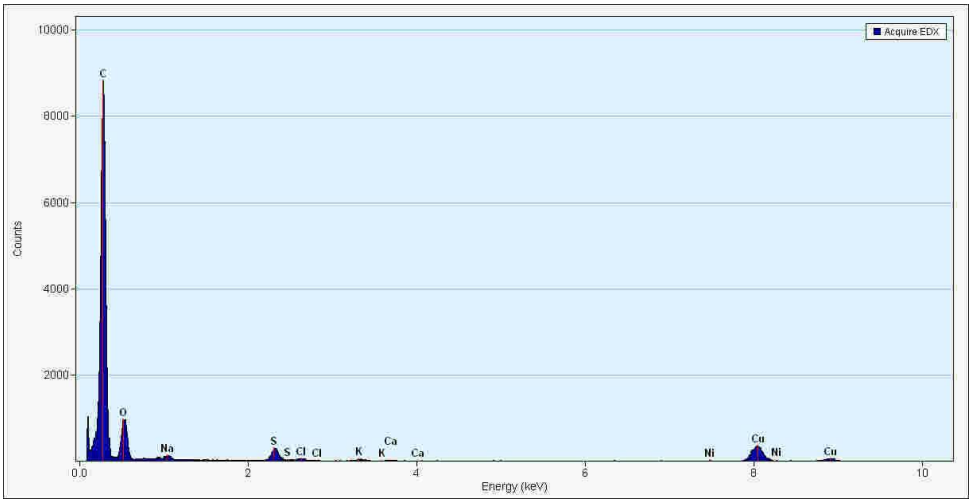

Fig. S2 EDX spectrum of **bCDPC**.

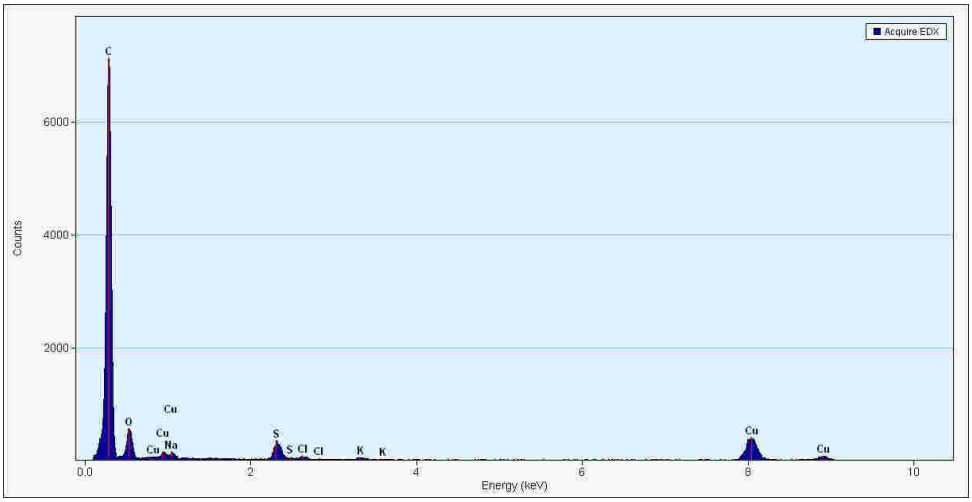

Fig. S3 EDX spectrum of **gCDPC**.

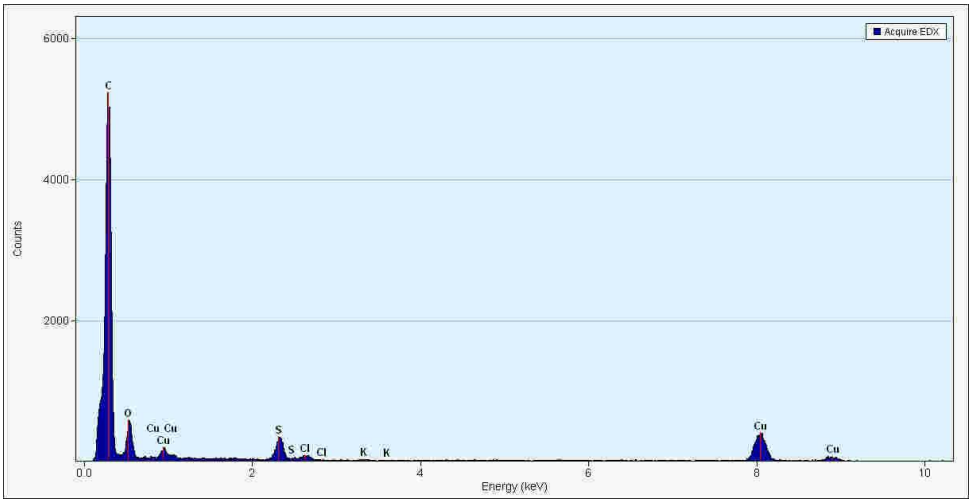

Fig. S4 EDX spectrum of **HMFPC**.

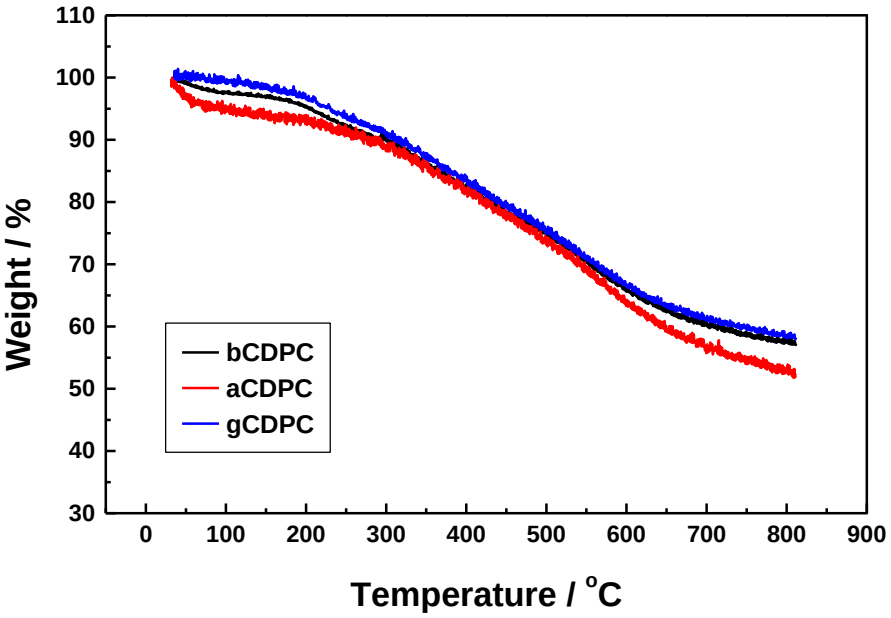

Fig. S5 Thermogravimetric analysis (TGA) of **aCDPC**, **bCDPC**, and **gCDPC**.

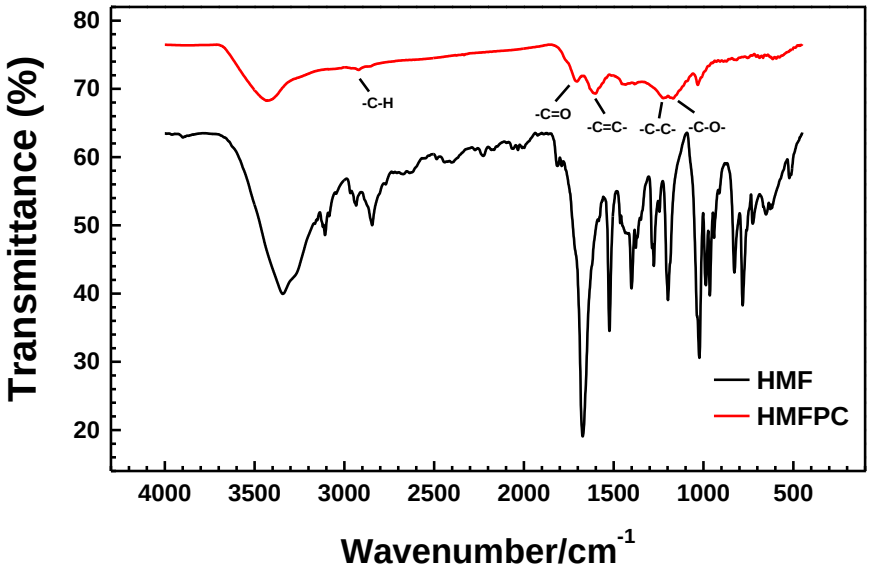

Fig. S6 FT-IR spectra of 5-hydroxymethyl-2-furaldehyde (HMF) and **HMFPC**.

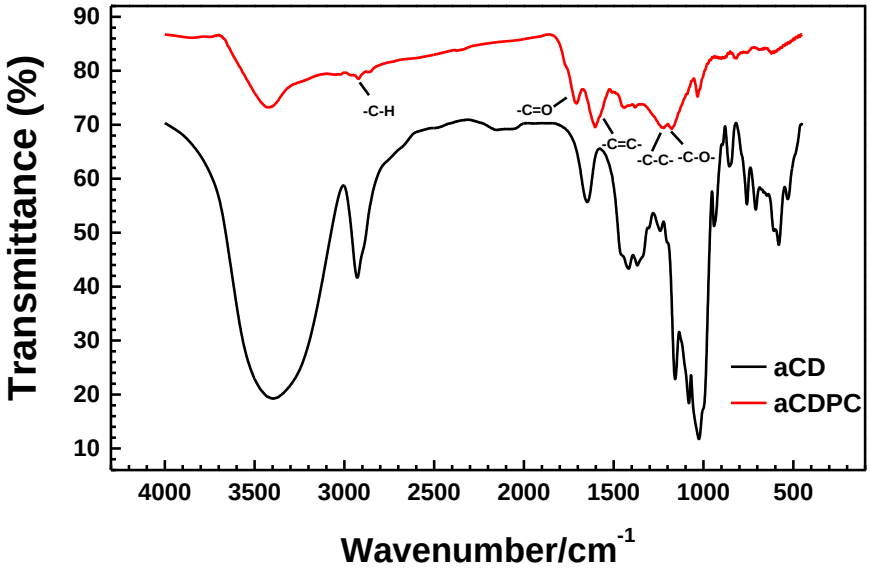

Fig. S7 FT-IR spectra of α-cyclodextrin (aCD) and **aCDPC**.

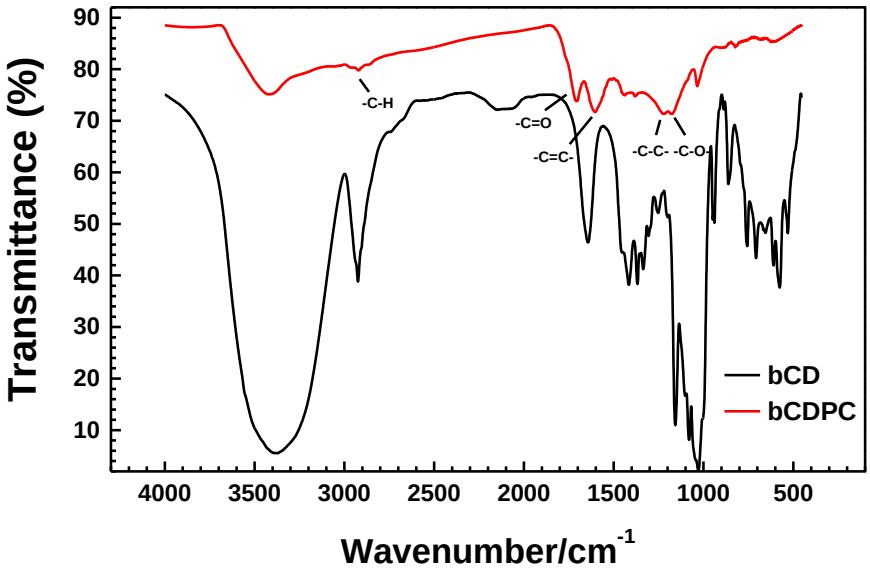

Fig. S8 FT-IR spectra of β-cyclodextrin (bCD) and **bCDPC**.

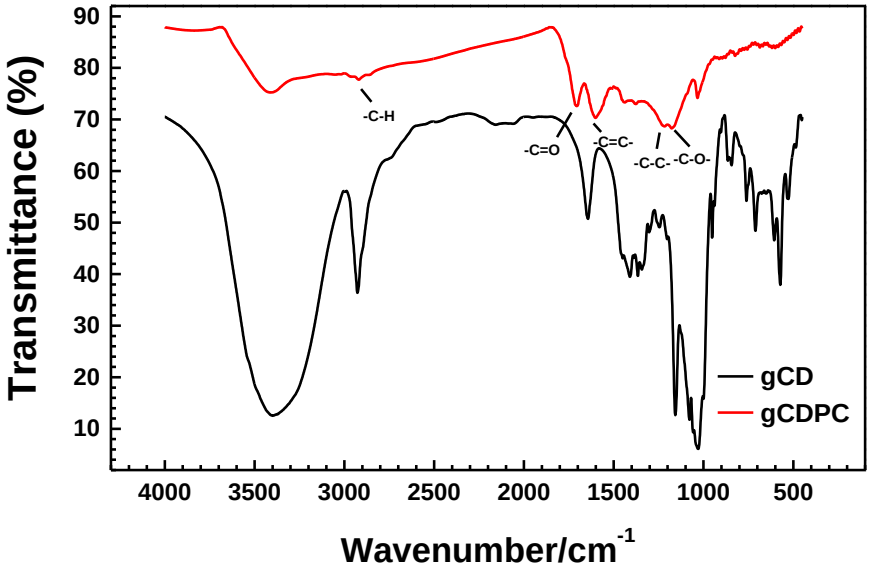

Fig. S9 FT-IR spectra of γ-cyclodextrin (gCD) and **gCDPC**.

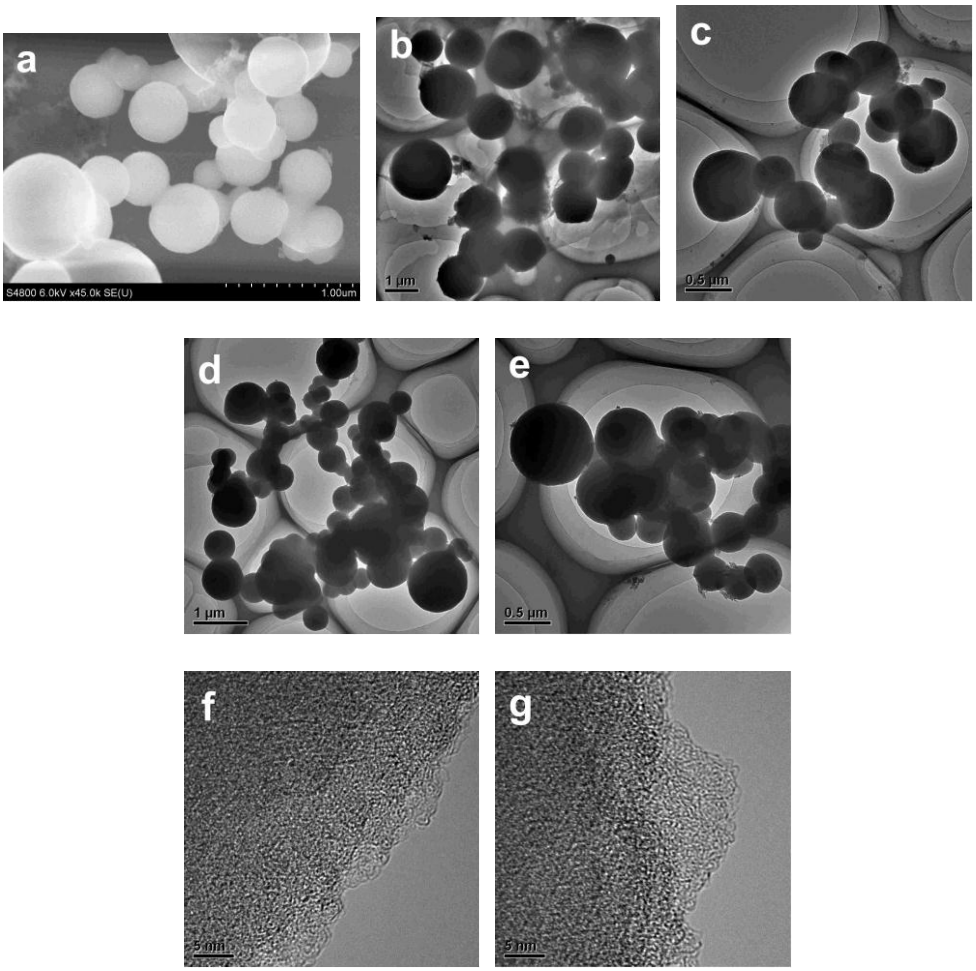

Fig. S10 SEM (a), TEM (b, c, d, and e), and HR-TEM (f and g) images of **aCDPC** (c and f), **bCDPC** (d and g), **gCDPC** (a and e), and **HMFPC** (b).

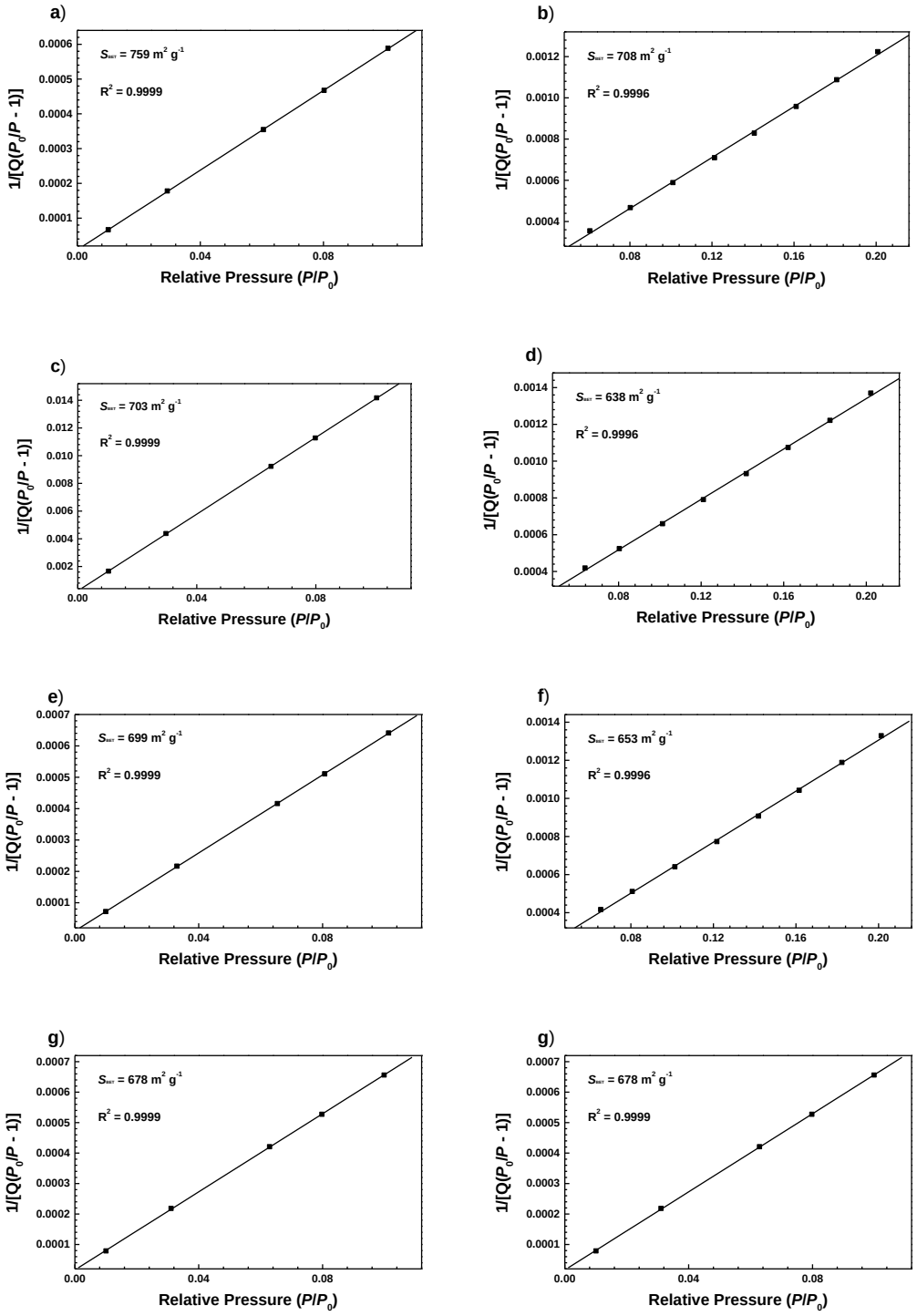

Fig. S11 BET specific surface area plots for **HMFPC** (a, b), **aCDPC** (c, d), **bCDPC** (e, f), and **gCDPC** (g, h) calculated over different relative pressure ranges: P/P_0 = 0.01–0.10 (a, c, e, and g) and P/P_0 = 0.05–0.20 (b, d, f, and h), respectively.

Table S2 BET specific surface area data calculated over different pressure ranges

Sample	P/P_0 range	S_{BET} ($m^2\ g^{-1}$)	Correlation Coefficient	Number of Points	C constant [a]
HMFPC	0.01–0.10	759	0.9999	5	645
HMFPC	0.05–0.20	708	0.9996	8	–198
aCDPC	0.01–0.10	703	0.9999	5	577
aCDPC	0.05–0.20	636	0.9996	8	–224
bCDPC	0.01–0.10	616	0.9999	5	616
bCDPC	0.05–0.20	653	0.9996	8	–199
gCDPC	0.01–0.10	678	0.9999	5	340
gCDPC	0.05–0.20	652	0.9998	8	–758

[a] The low relative pressure range of 0.01–0.10 using five points gives the higher C constant values and therefore the best fit to the BET equation.

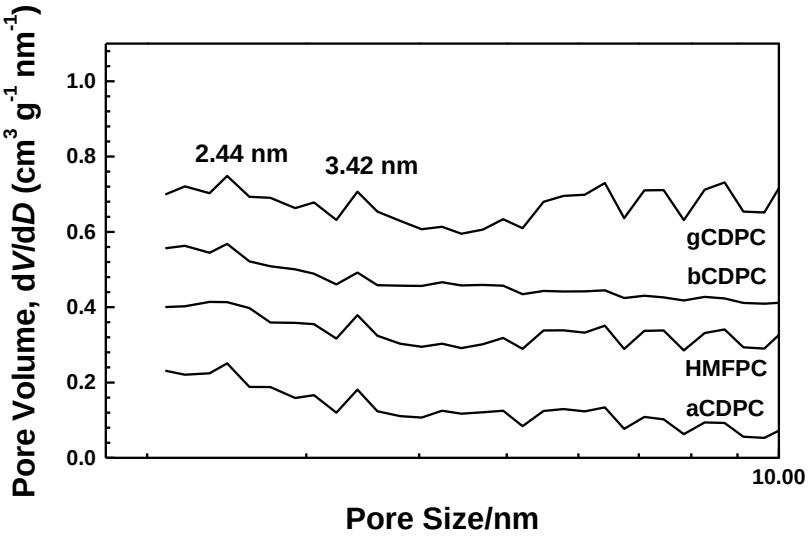

Fig. S12 Pore size distribution profiles calculated by the original DFT method in the mesopore range. The profiles of **HMFPC**, **bCDPC**, and **gCDPC** have also been offset by 0.2 unit for the purpose of clarity.