Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

<Supplementary Information>

Supercapacitive Behavior Depending on Mesopore Size of Three-Dimensional Micro-, Meso- and Macroporous Silicon Carbide for Supercapacitors

By Myeongjin Kim, Ilgeun Oh and Jooheon Kim*

*Corresponding author, Tel: +82 2 820 5763; E-mail: jooheonkim@cau.ac.kr

1. TEM images and SAED pattern of 3MPSiC-C

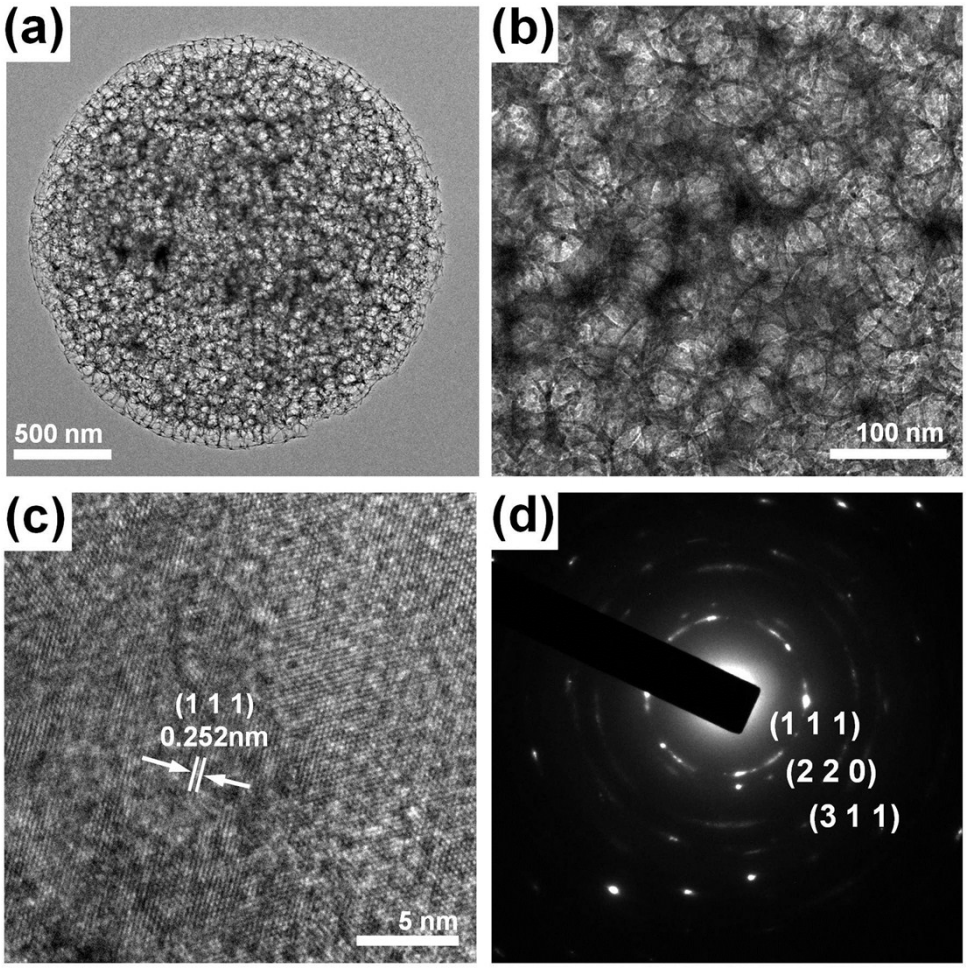

Figure S1(a). Low-magnification FE-TEM image of 3MPSiC-C. **(b,c)**. High- magnification FE-TEM image of 3MPSiC-C. **(d)**. SAED pattern of 3MPSiC-C.

2. TEM images and SAED pattern of 3MPSiC-P

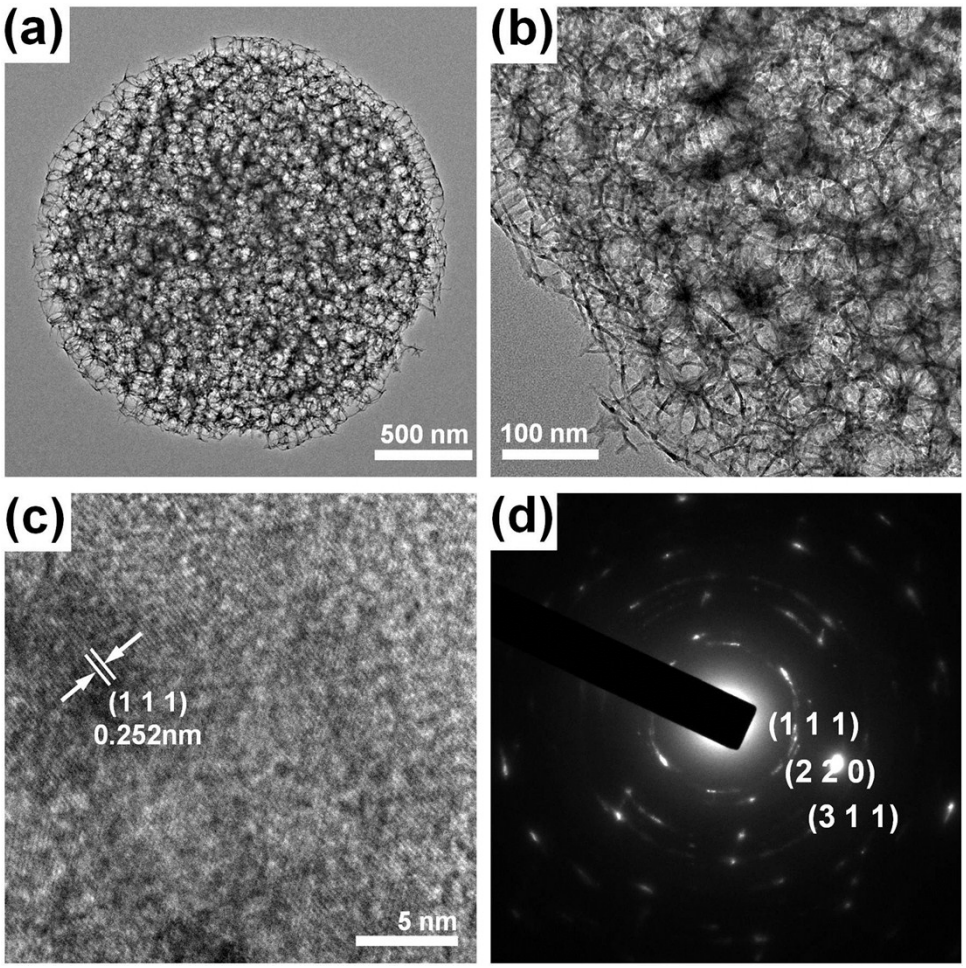

Figure S2(a). Low-magnification FE-TEM image of 3MPSiC-P. **(b,c)**. High- magnification FE-TEM image of 3MPSiC-P. **(d)**. SAED pattern of 3MPSiC-P.

3. XPS analysis of 3MPSiC materials

Table S1. The Si 2p peak position and the relative atomic percentages of various peaks in 3MPSiC

	Fitting of the Si 2p peak Binding energy [eV] (relative atomic percentage [%])			
	Si-C	$SiOC_3$	SiO_2C_2	SiO_3C
3MPSiC-C	99.5 (70.5)	100.42 (14.12)	101.33 (9.09)	102.12 (6.29)
3MPSiC-B	99.51 (71.21)	100.44 (14.61)	101.34 (8.47)	102.15 (5.71)
3MPSiC-P	99.51 (71.18)	100.46 (14.14)	101.37 (8.78)	102.17 (5.9)

Table S2. The C 1s peak position and the relative atomic percentages of various peaks in 3MPSiC

	Fitting of the C 1s peak Binding energy [eV] (relative atomic percentage [%])		
	Si-C	SiO_xC_y	C-C
3MPSiC-C	282.81 (60.6)	283.74 (25.22)	284.6 (14.18)
3MPSiC-B	282.81 (60.03)	283.79 (24.83)	284.62 (15.14)
3MPSiC-P	282.81 (61.38)	283.86 (24.68)	284.59 (13.94)

4. Deconvoluted Si 2p, C 1s and O 1s XPS spectra of 3MPSiC-C

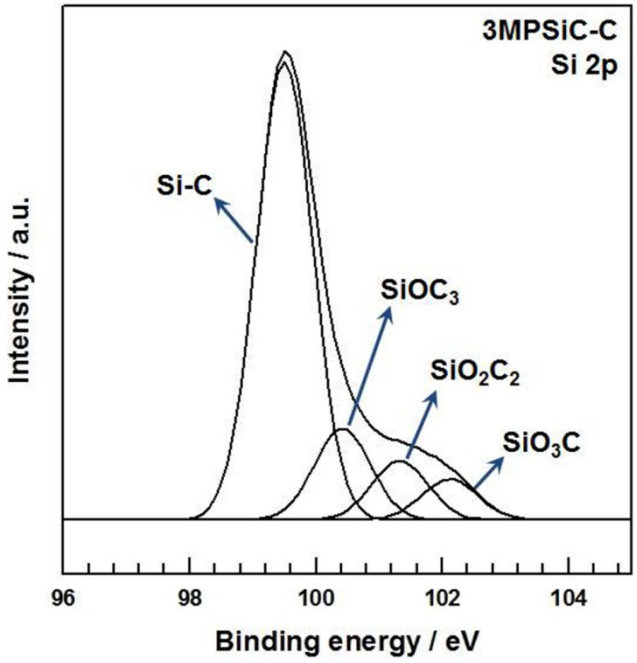

Figure S3(a). XPS Si 2p spectra of 3MPSiC-C.

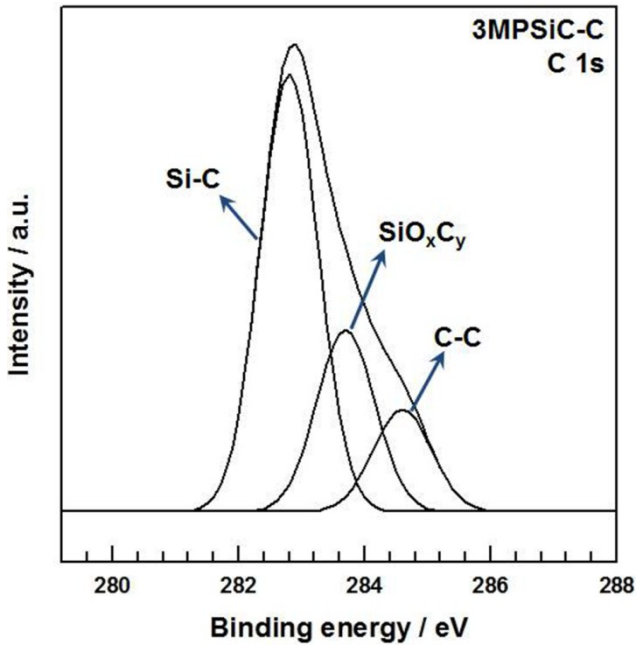

Figure S3(b). XPS C 1s spectra of 3MPSiC-C.

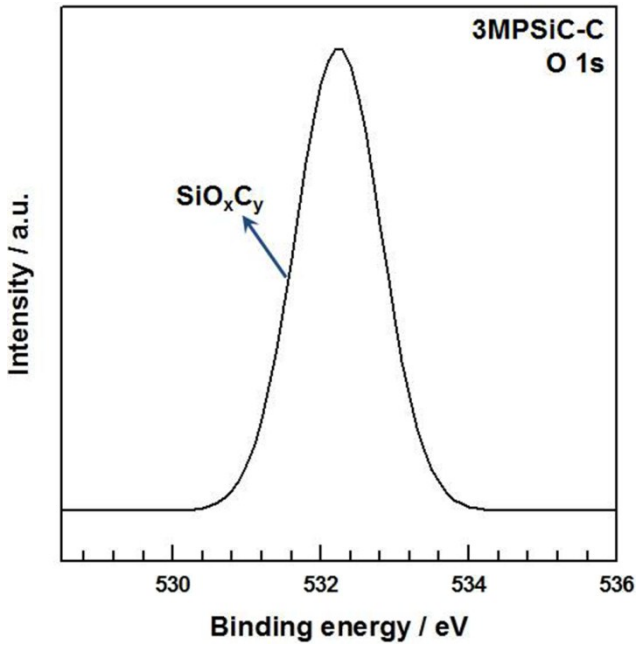

Figure S3(c). XPS O 1s spectra of 3MPSiC-C.

5. Deconvoluted Si 2p, C 1s and O 1s XPS spectra of 3MPSiC-P

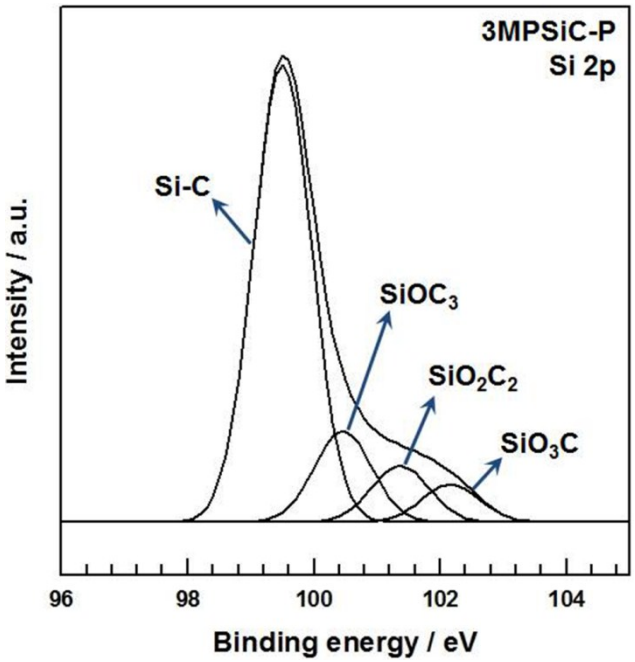

Figure S4(a). XPS Si 2p spectra of 3MPSiC-P.

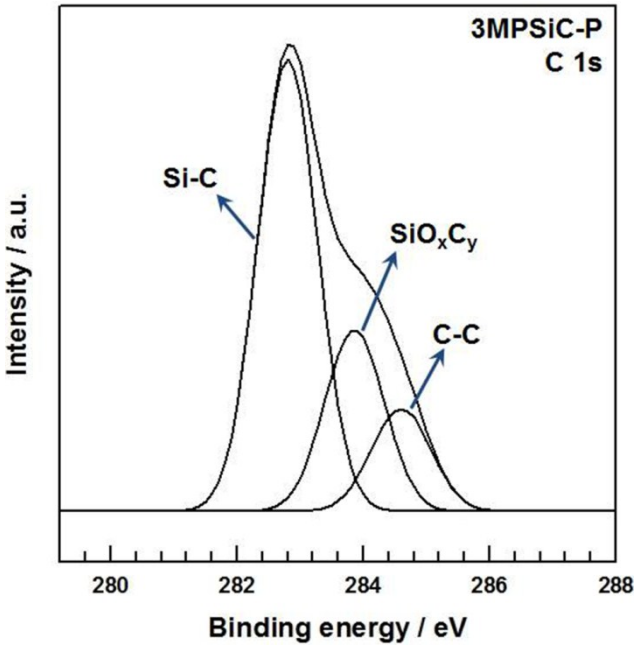

Figure S4(b). XPS C 1s spectra of 3MPSiC-P.

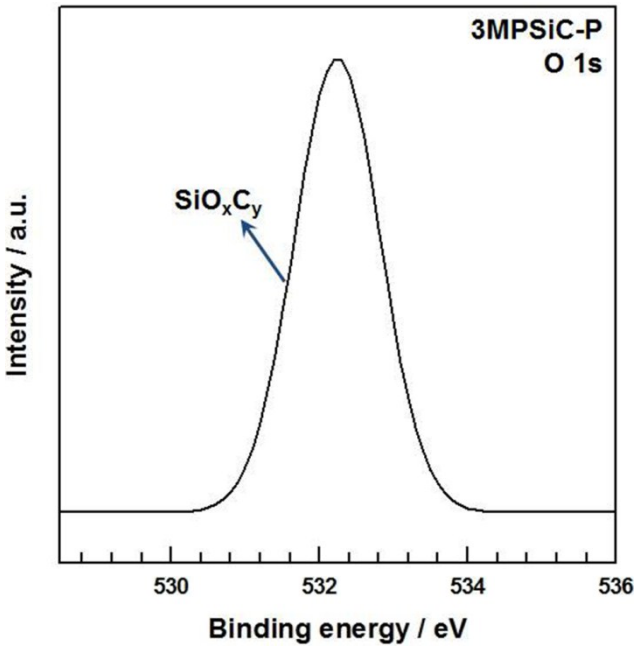

Figure S4(c). XPS O 1s spectra of 3MPSiC-P.