Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

One-pot Synthesis of Boron-doped Ordered Mesoporous Carbons as Efficient Electrocatalysts for Oxygen Reduction Reaction

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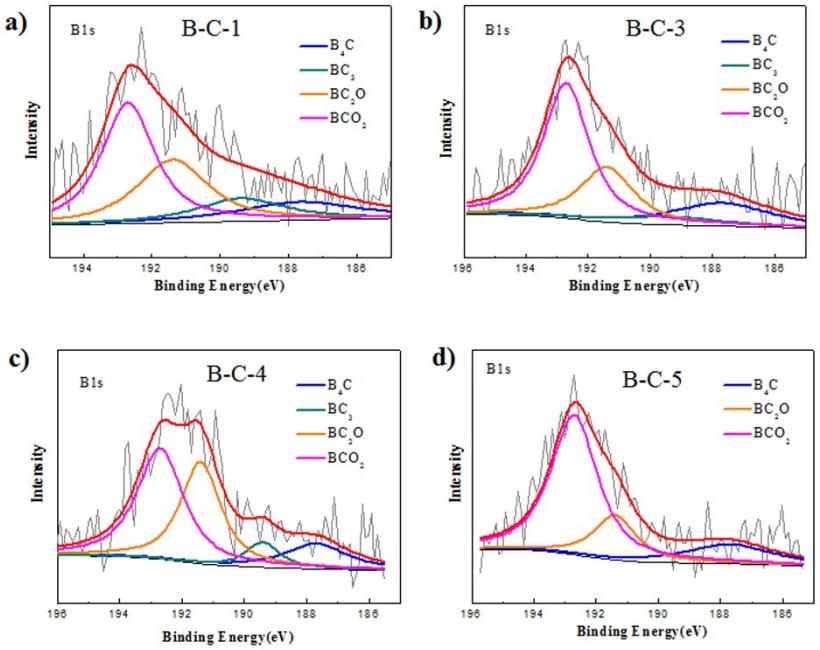

Fig. S1 High-resolution B1s core-level XPS spectra of the a) B-C-1, b) B-C-3, c) B-C-4, d) B-C-5.

Table S1 The ORR activity comparison of B-C-2, B_3CNTs, BDC900, BOMCs-2 and B-OMC-1.

Catalyst	Onset potential	Half-wave potential	Electron transfer number	reference
B-C-2[a]	-0.14 V vs. Ag/AgCl	-0.29 V vs. Ag/AgCl	3.71-3.85	This work
Boron-Doped CNTs (B_3CNTs)[b]	~ -0.25 V vs. SCE	~-0.4 V vs SCE	2.5	[11]
Boron-Doped Carbon (BDC900)[c]	~-0.199 V vs. Ag/AgCl (~ -0.005 V vs. NHE)	~-0.264 V vs. Ag/AgCl (~ -0.07 V vs. NHE)	3.73	[12]
Boron-Doped OMCs (hard template, BOMCs-2)[d]	-0.16 V vs Ag/AgCl	~ -0.4 V vs. Ag/AgCl	3.86-4.0	[21]
Boron-Doped OMCs (B-OMC-1)[e]	-0.085 V vs. SCE	~ -0.23 V vs. SCE	2.0-2.5	[23]

Note: a, b, c, d and e were measured under 1600 rpm, 2500 rpm, 1600 rpm, 800 rpm and 1200 rpm, respectively.