Electronic Supporting Information

Figures

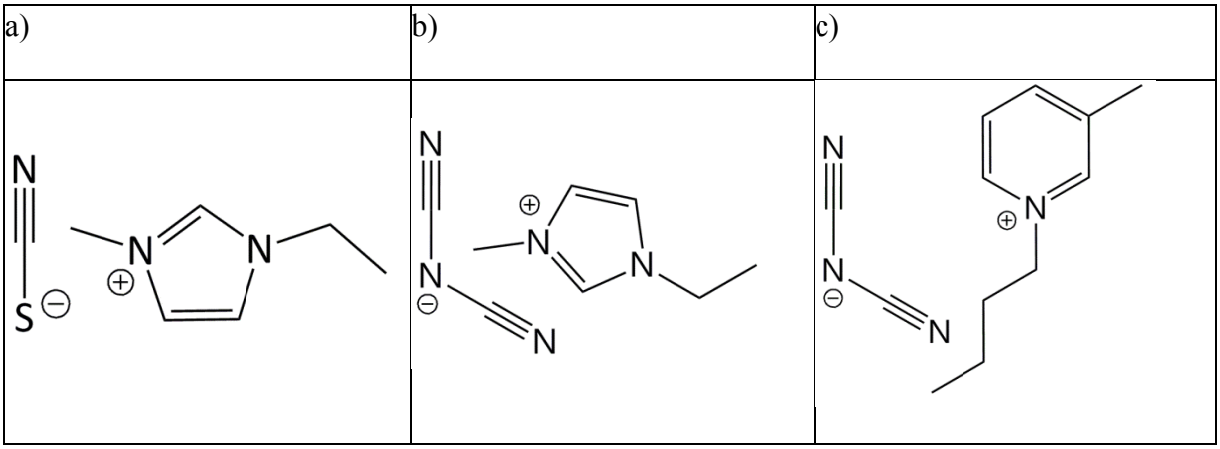

Figure SI-1 Chemical structure of a) Emim-scn, **b**) Emim-dca and c) Bmp-dca.

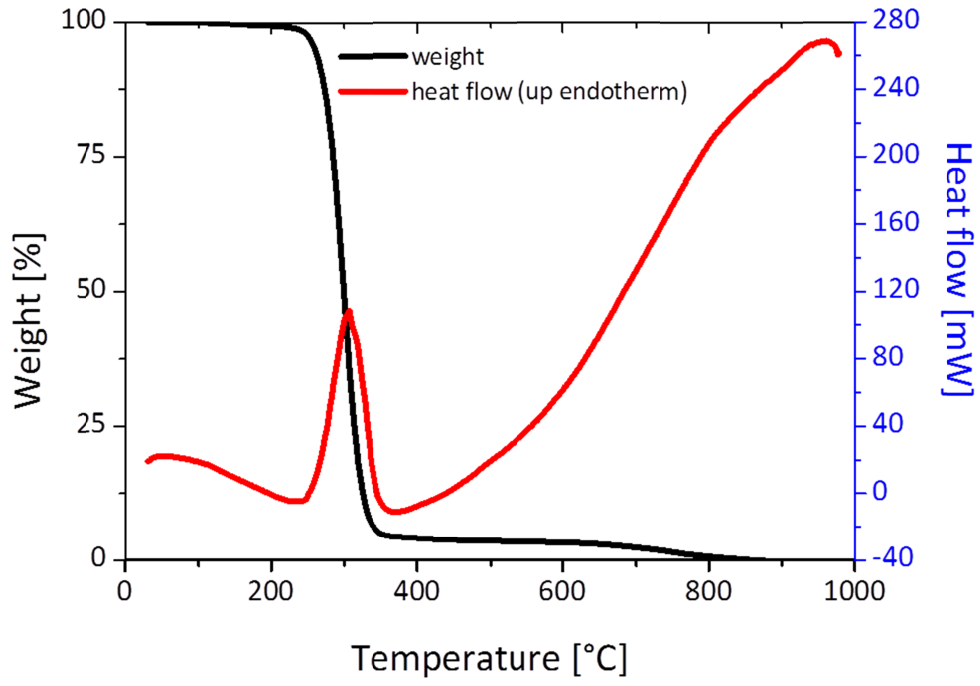

Figure SI-2 TGA-DSC of Emim-scn.

Table SI-1 Product yields of N-S-dC_IL_x_800 and salt templated carbons N-S-dC_IL_2_SZ_3_800.

IL	x	Yield [wt%][(1)]
Emim-scn	-	5
Emim-dca	1	15
Emim-dca	2	11
Emim, SZ	2	30
Emim-dca	3	10
Bmp-dca	1	17
Bmp-dca	2	12
Bmp, SZ	2	30
Bmp-dca	3	10

(1) Carbon yield from initial IL precursor mixture.

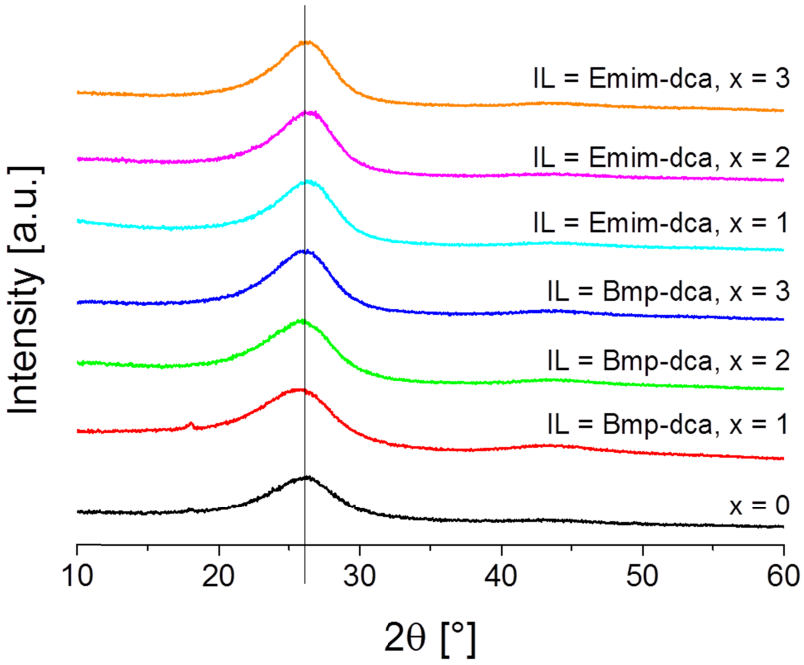

Figure SI-3 XRD patterns of N-S-dC_IL_x_800.

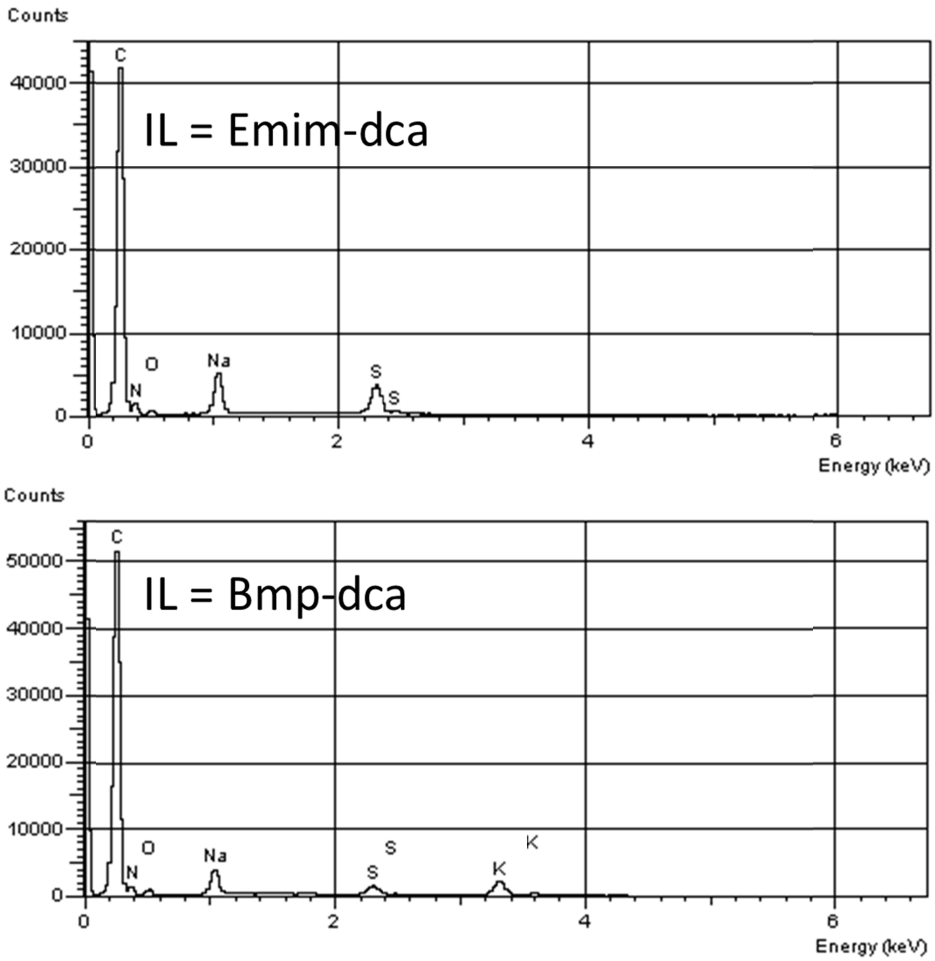

Figure SI-4 EDX of N-S-dC_IL_2_800 with IL=Emim-dca (top) and Bmp-dca (bottom).

Table SI-2 Elemental composition of salt templated N-S-co-doped carbons N-S-dC_IL_2_SZ_3_800 derived from combustion elemental analysis.

IL	Elemental analysis [wt%]			
	N	C	H	S
Emim-dca	10.8	65.3	1.9	6.0
Bmp-dca	12.7	64.3	1.9	5.8

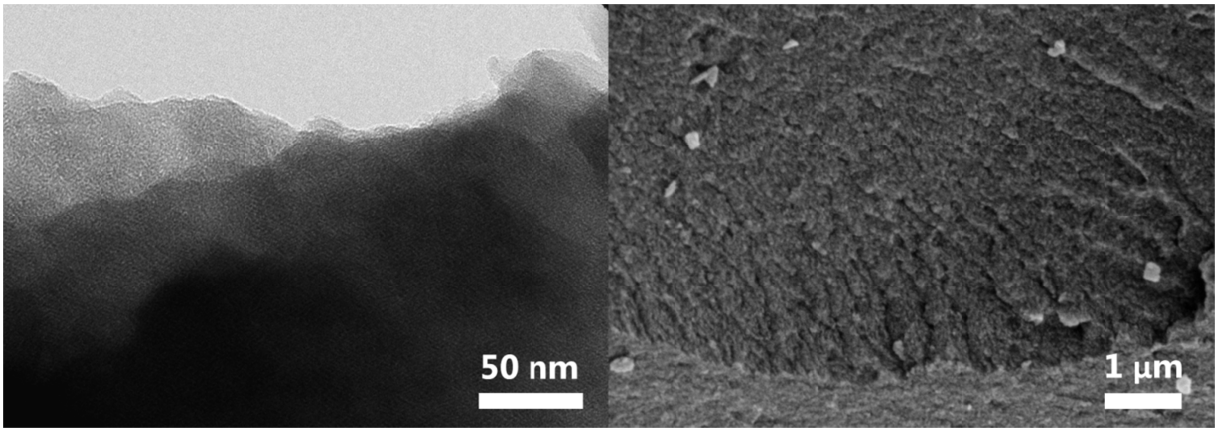

Figure SI-5 TEM (left) and SEM (right) of N-S-dC_800.

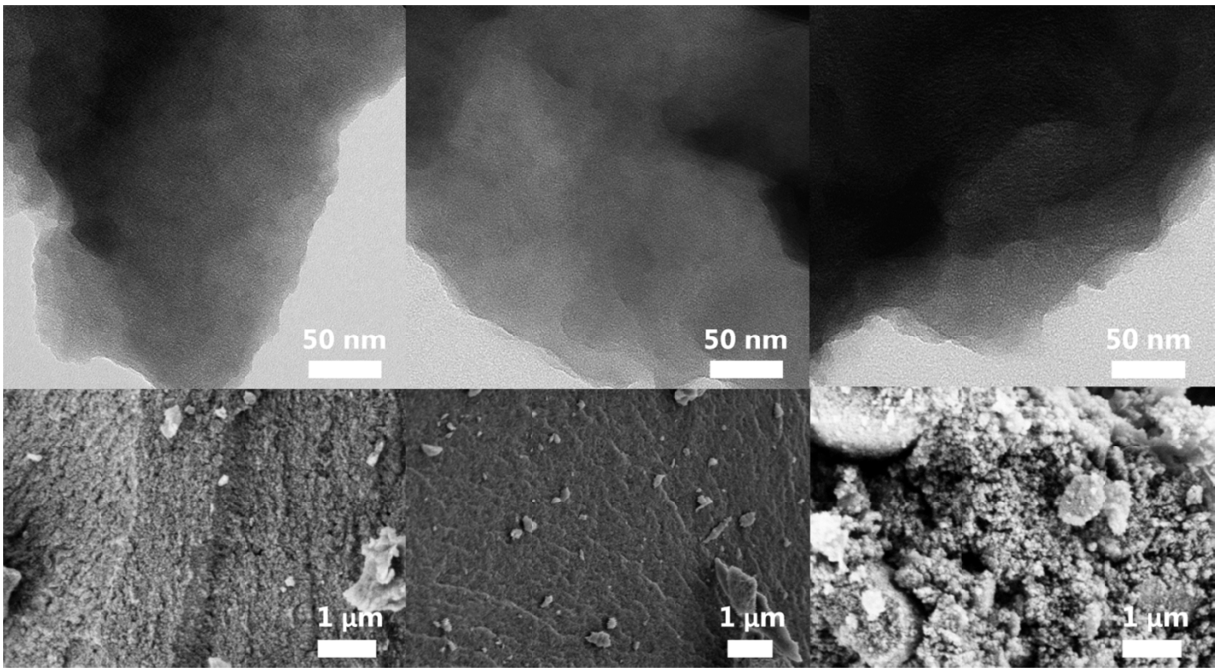

Figure SI-6 TEM (top) and SEM (bottom) of N-S-dC_Bmp-dca_x_800 with x=1 (left), 2 (middle) and 3 (right).

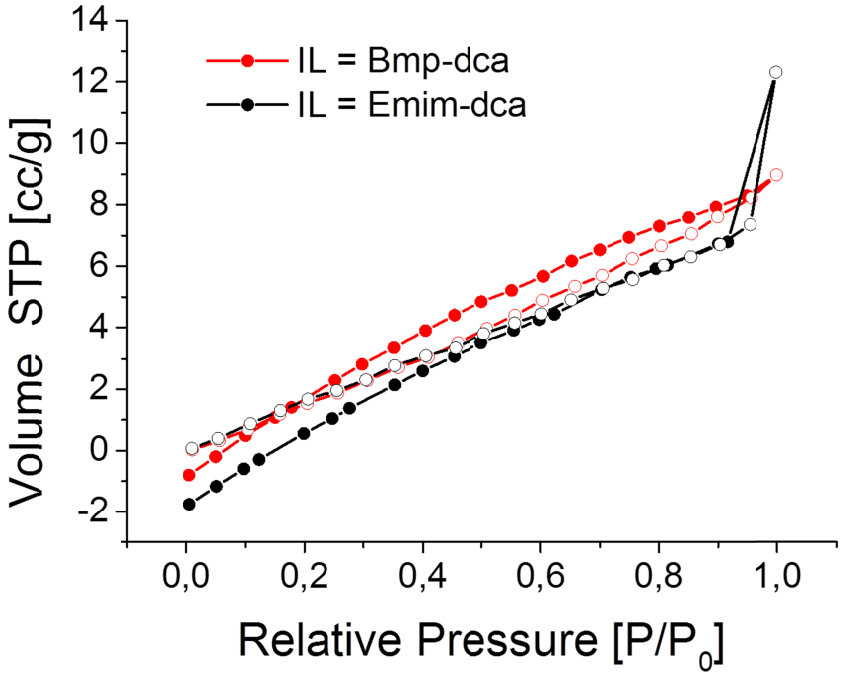

Figure SI-7 Nitrogen sorption isotherms N-S-dC_IL_2_800 with IL=Emim-dca (black) and Bmp-dca (red).

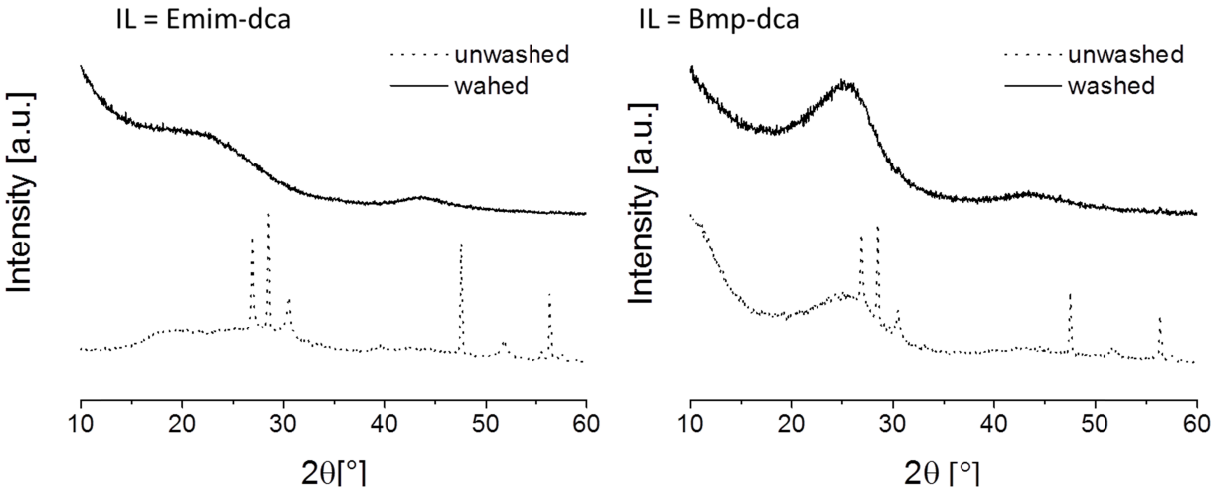

Figure SI-8 XRD patterns of N-S-dC_IL_2_SZ_3_800 with IL=Emim-dca (left) and IL=Bmp-dca (right) before (dotted) and after (solid) washing with HCl.

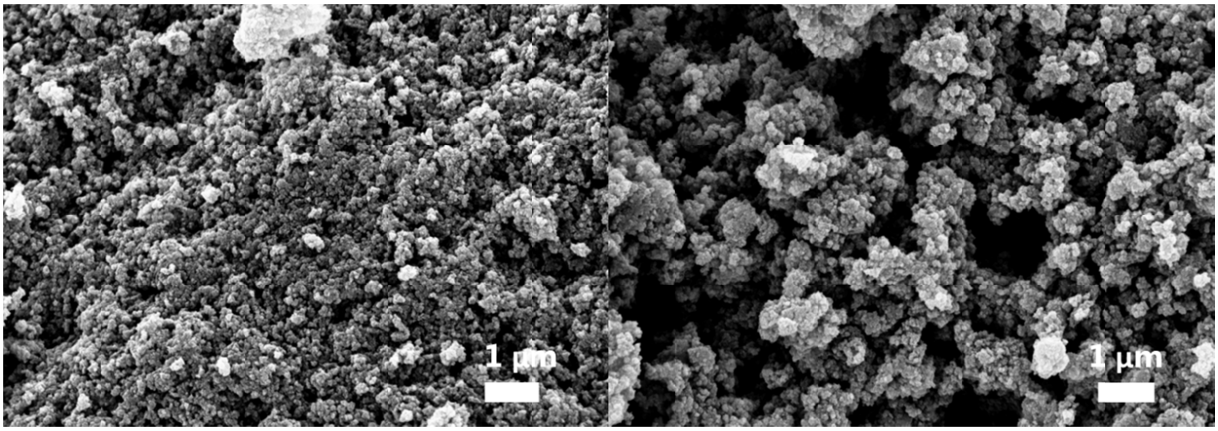

Figure SI-9 SEM of N-S-dC_IL_2_SZ_3_800 with IL=Emim-dca (left) and IL=Bmp-dca (right).