**Supplementary Information**

**Nitrogen-doped Ordered Mesoporous Carbon Using Task-specific Ionic Liquid as a Dopant for High-performance Supercapacitors**

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Firstly, 1-ethyl-3-methylimidazolium bromide (EMIM-Br) and dicyanamide silver (AgN(CN)2) were synthesized respectively in order to obtain EMIM-dca.



**Fig. S1** Synthesis strategy of EMIM-dca.

In the typical alkylation process of synthesizing EMIM-Br, 20 g (0.24 mol) 1-methylimidazole was added into a flask, and then 29.2 g (0.27 mol) bromoethane was dripped into the flask within 1 h with intense agitation at 40 °C. The alkylation reaction was stopped after 23 h. In order to remove a small quantity of reactants still left in the as-prepared EMIM-Br, the liquid was dissolved in 100 mL deionized water and purified by ethyl acetate several times. Finally, EMIM-Br was obtained after removing water by evaporation and drying under vacuum.

In first ion exchange reaction of synthesizing AgN(CN)2, 34.0 g (0.2 mol) AgNO3 solid was dissolved in 200 mL deionized water, then 18.7 g (0.21mol) NaN(CN)2 powder in a stoichiometric ratio was added into the AgNO3 solution with magnetic agitation overnight in the dark. The slurry was filtered and as-made white solid was AgN(CN)2.

The second ion exchange reaction occurred with 40 g EMIM-Br (0.2 mol) and 40 g AgN(CN)2 (0.2 mol) mixed in 200 mL deionized water. The mixture was kept in dark place and heated at 50 °C for 24 h with magnetic stirring. The formation of AgBr precipitation was indicated by the color of solid from white to yellow in the process. The slurry was filtered to separate the resulting solid AgBr. The water in collected filtrate was removed by rotary evaporator and vacuum oven at 50 °C. The obtained clear liquid was 33.8 g with the yield of 91%.