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Figure S1SEM images of RMAC-4 with low magnification



Figure. S2 FT-IR spectra of RMC and RMAC-4 materials



Figure. S3 N<sub>2</sub> adsorption/desorption isotherms (inset) and the pore size distribution of RMAC-4



Figure. S4 (a) XPS survey spectrum of RMC; (b) High resolution C1s of RMC; (c) High resolution N1s of RMC;(d) High resolution O1s of RMC; (e) High resolution P2p of RMC; (f) High resolution S2p of RMC.



Figure. S5 CV curves of RMAC samples prepared under different temperature at 100  $\mathrm{mV/s}$ 



Figure. S6 Cycling performance of RMAC-4 at 10 A  $g^{\text{-}1}$ 



Figure. S7 Photograph of a lit LED bulb