

Supplementary Information

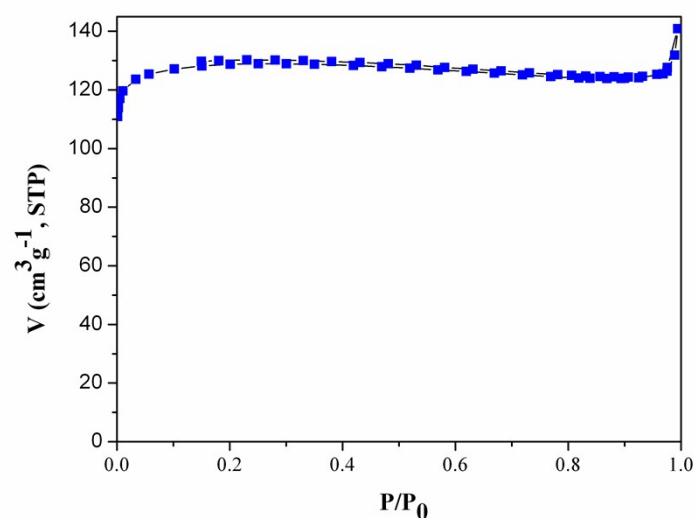


Fig. SI1 Nitrogen adsorption-desorption isotherms of starch SC0.5 carbon spheres calcinated at 700°C/3h in argon atmosphere.

Surface area $S_{\text{BET}} = 516.4 \text{ m}^2/\text{g}$; Micropore area: $489.2 \text{ m}^2/\text{g}$

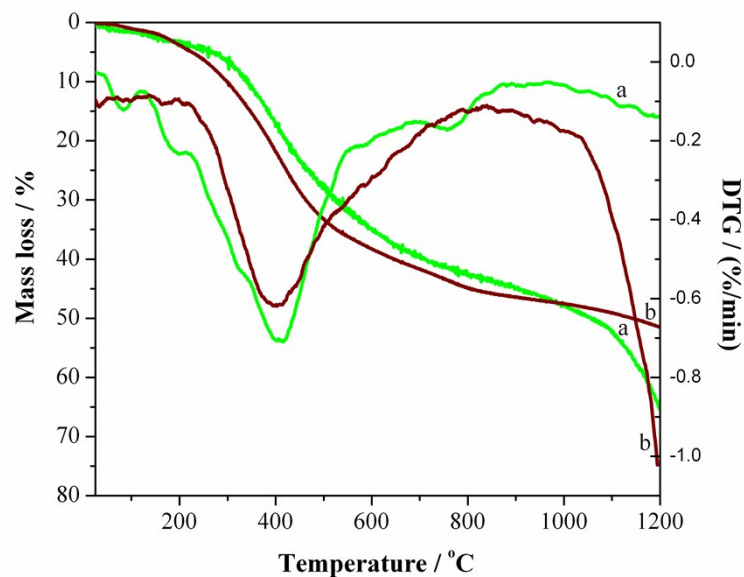


Fig. SI2. Thermal curves (TG and DTG) of: (a) ZnC0.005 (argon atmosphere, heating rate=5°C/min) and (b) free-zinc carbonaceous spheres SC0.1

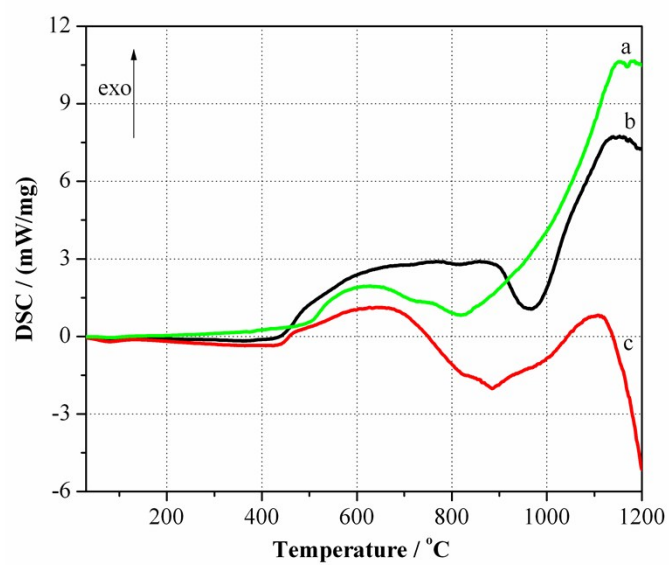


Fig. SI3. DSC curves of ZnOCX composites: (a) ZnOC0.005; (b) ZnOC0.1 and (c) ZnOC0.5 samples (argon atmosphere, heating rate=5°C/min).