## Poly-assisted template-free synthesis novel double-shelled Co<sub>3</sub>O<sub>4</sub> yolk-shell submicrospheres with excellent electrochemical properties

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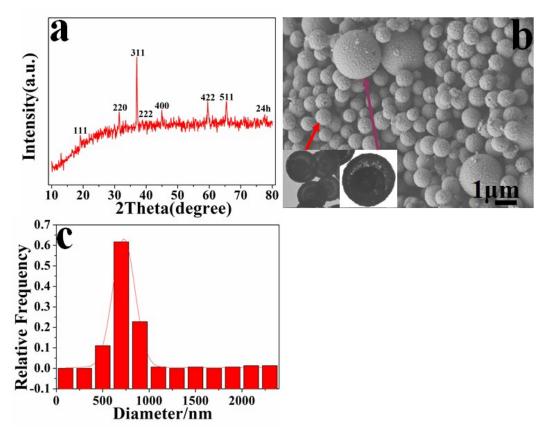


Figure S1 a)XRD pattern; b)SEM image; c)Particle Distribution image of  $Co_3O_4$  multishelled spheres obtained by a solvothermal process at 220°C for 24h and subsequent high heating treatment at 600°C for 2h in air.

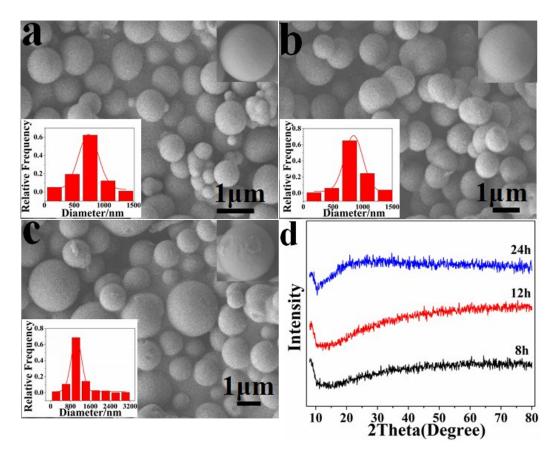


Fig.S2. SEM image of precursor obtained by a solvothermal process at 220°C at different time, a)8h; b)12h; c)24h; d)XRD pattern of the precursors.