

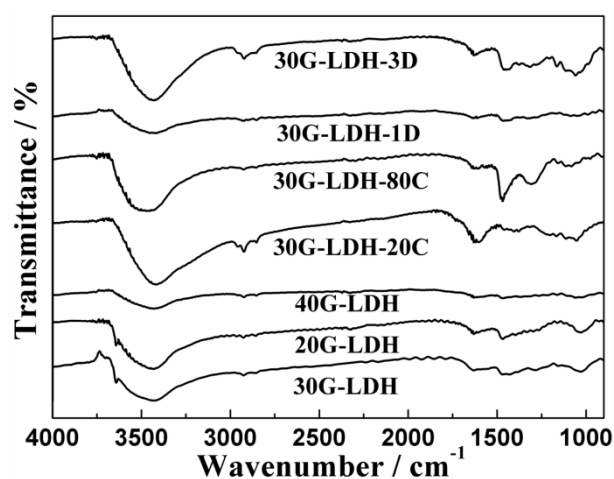
Electronic Supplementary material (ESI) for Energy & Environmental Science

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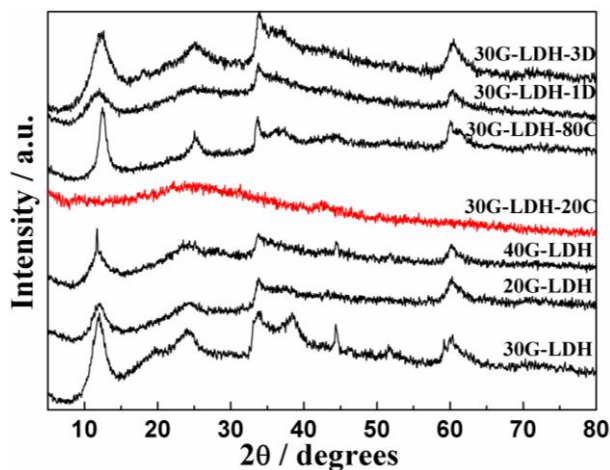
## Supporting Information

### 3D porous layered double hydroxide grown on graphene as advanced electrochemical pseudocapacitor materials

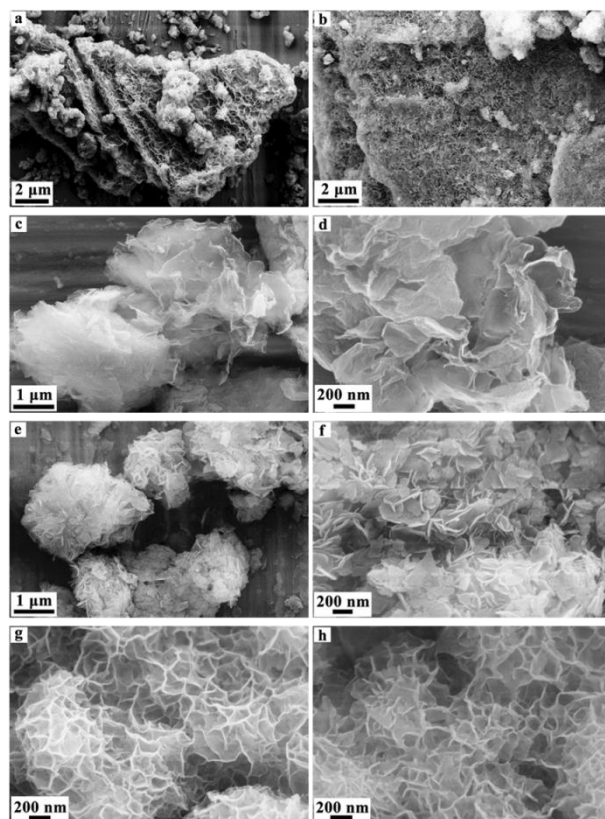
Luojiang Zhang, Jie Wang, Jiajia Zhu, Xiaogang Zhang\*, Kwansan Hui and Kwunnam Hui



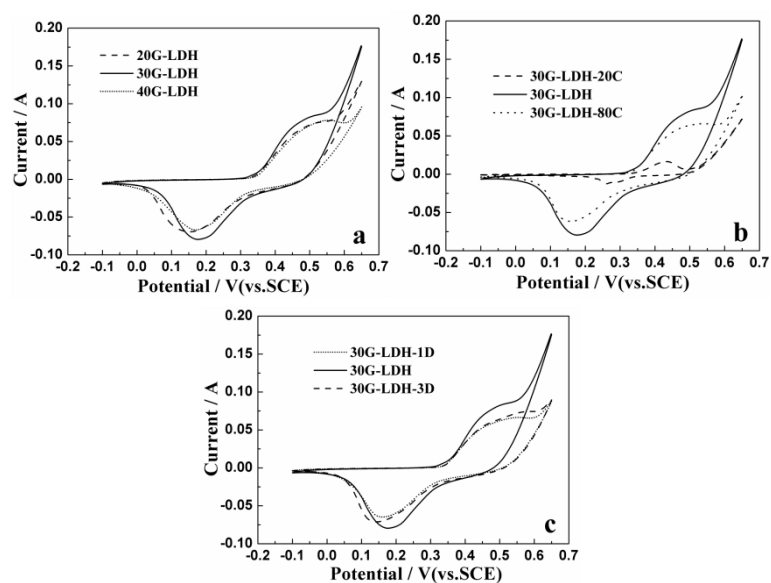
**Fig. S1** FT-IR spectra of 30G-LDH, 20G-LDH, 40G-LDH, 30G-LDH-20C, 30G-LDH-80C, 30G-LDH-1D and 30G-LDH-3D



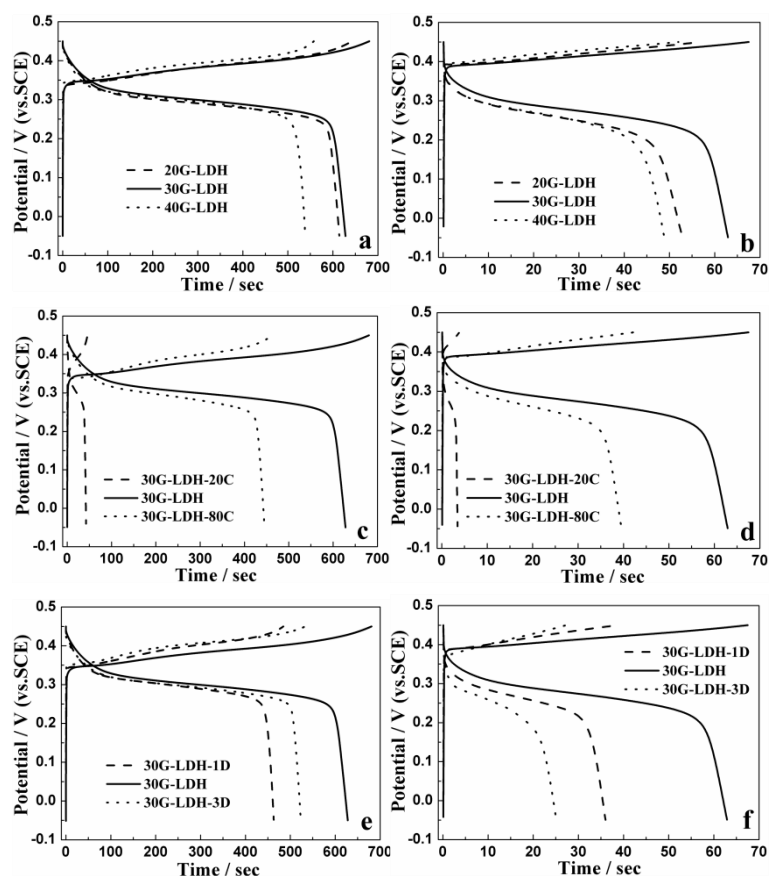
**Fig. S2** Powder XRD patterns of 30G-LDH, 20G-LDH, 40G-LDH, 30G-LDH-20C, 30G-LDH-80C, 30G-LDH-1D and 30G-LDH-3D



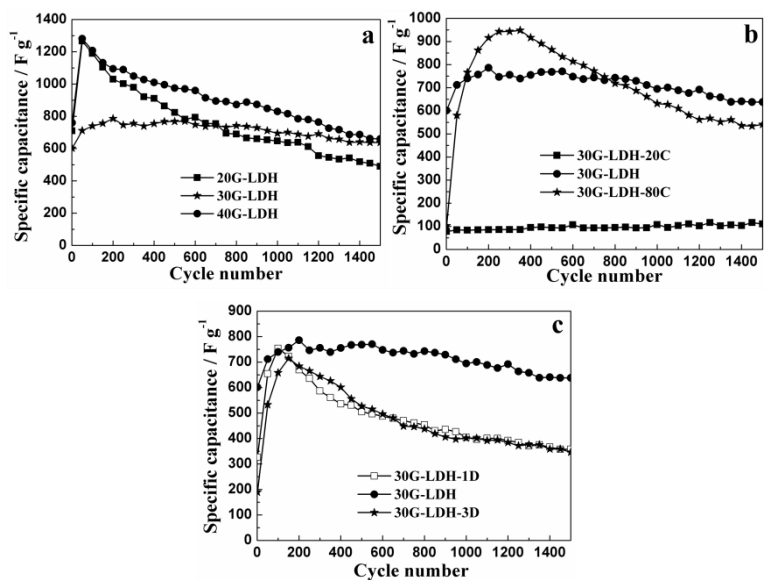
**Fig. S3** Typical FESEM images of (a) 20G-LDH, (b) 40G-LDH, (c, d) 30G-LDH-20C, (e, f) 30G-LDH-80C, (g) 30G-LDH-1D and (h) 30G-LDH-3D



**Fig. S4** Cyclic voltammograms of composites synthesized at different (a) feeding ratios, (b) temperatures and (c) time



**Fig. S5** The charge/discharge curves of composites at current densities of (a,c,e) 1 A·g<sup>-1</sup> and (b,d,f) 6 A·g<sup>-1</sup> in 6 M KOH aqueous solution



**Fig. S6** The cycle life of composites at 6 A·g<sup>-1</sup> in 6 M KOH aqueous solution