

## Supplementary data

### **Synthesis of amorphous manganese oxide nanoparticle - to - crystalline nanorod through a simple wet-chemical technique using $K^+$ ion as ‘growth director’ and the morphology-controlled high performance supercapacitor applications**

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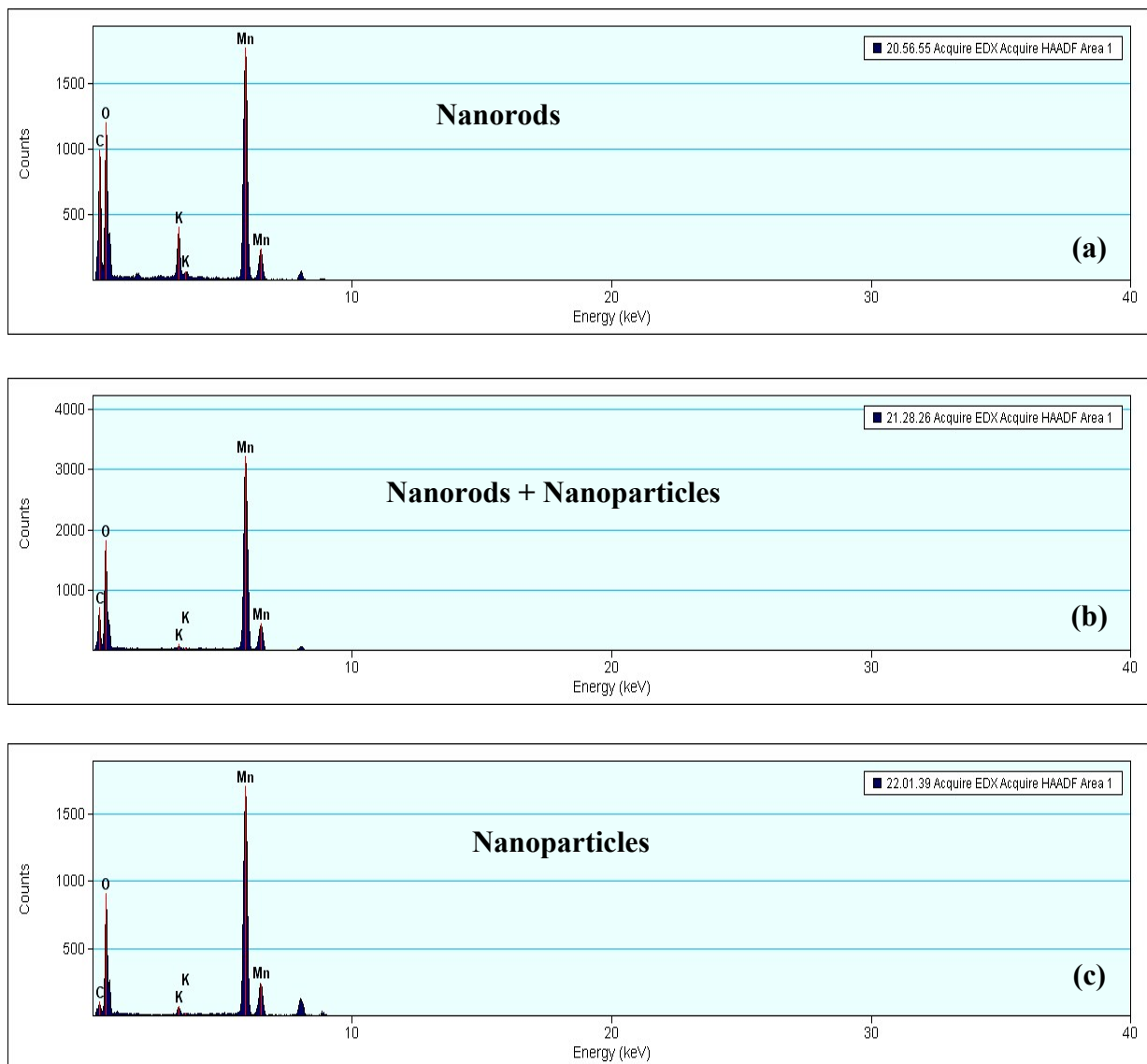
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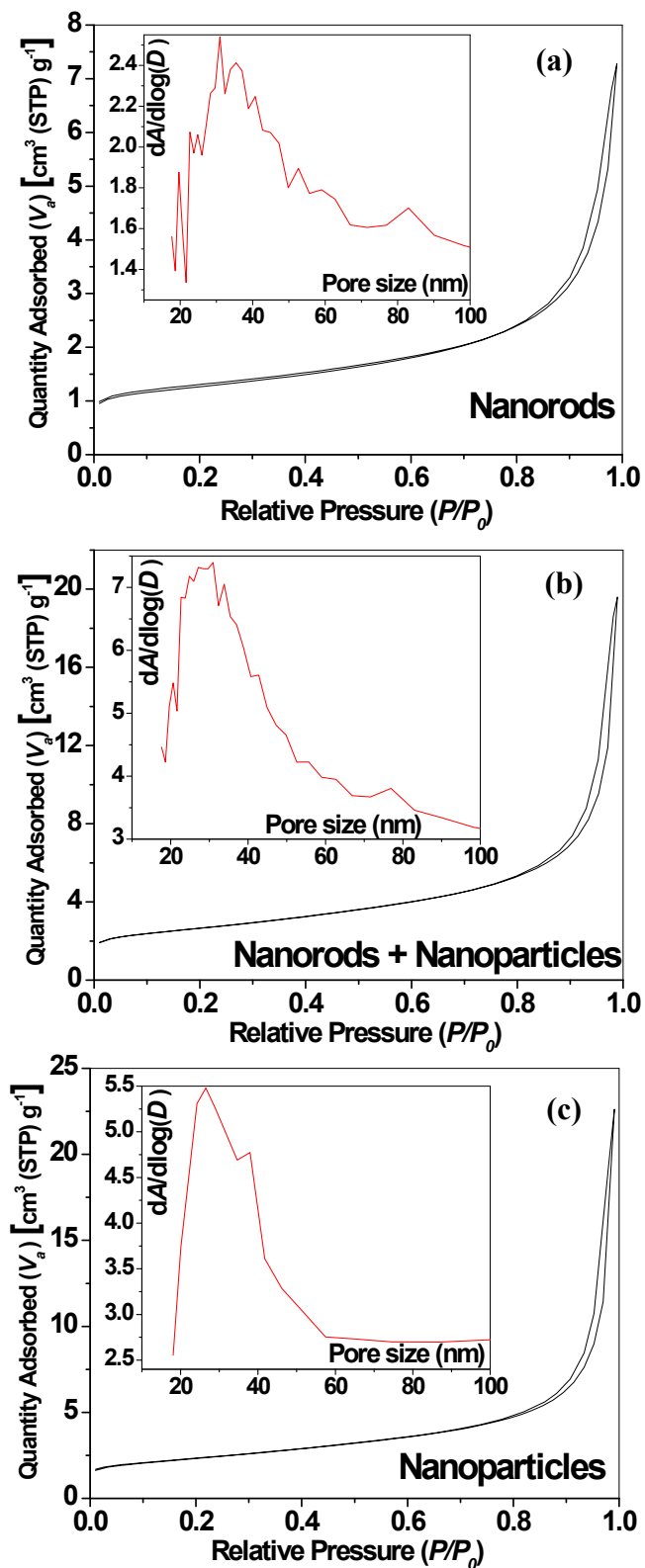
E-mail: swjoo@yu.ac.kr; Fax: +82-53-810-2062; Tel: +82-53-810-3239 (SWJ)

**Figure S1:** Hasi Rani *et al.*



**Fig. S1:** EDX spectra of manganese oxide nanorods (a), nanorod-nanoparticle mixture (b) and nanoparticle (c) samples.

Figure S2: Hasi Rani *et al.*



**Fig. S2:** BET adsorption-desorption curves for (a) nanorods, (b) nanorod-nanoparticles mixture, and (c) nanoparticle samples. Insets reveal the corresponding pore size distributions.

Figure S3: Hasi Rani *et al.*

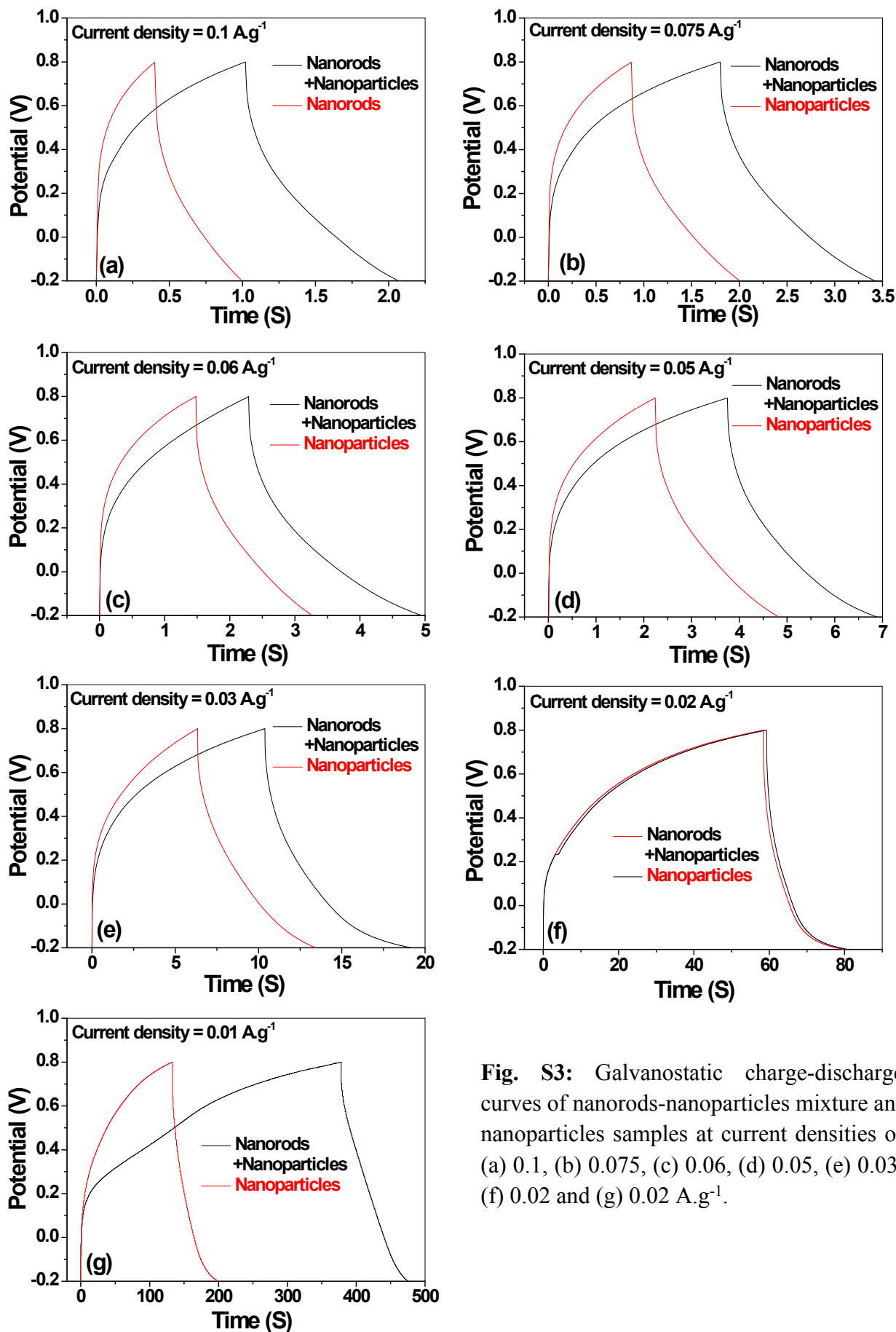


Fig. S3: Galvanostatic charge-discharge curves of nanorods-nanoparticles mixture and nanoparticles samples at current densities of (a) 0.1, (b) 0.075, (c) 0.06, (d) 0.05, (e) 0.03, (f) 0.02 and (g) 0.02 A.g<sup>-1</sup>.

Figure S4: Hasi Rani *et al.*

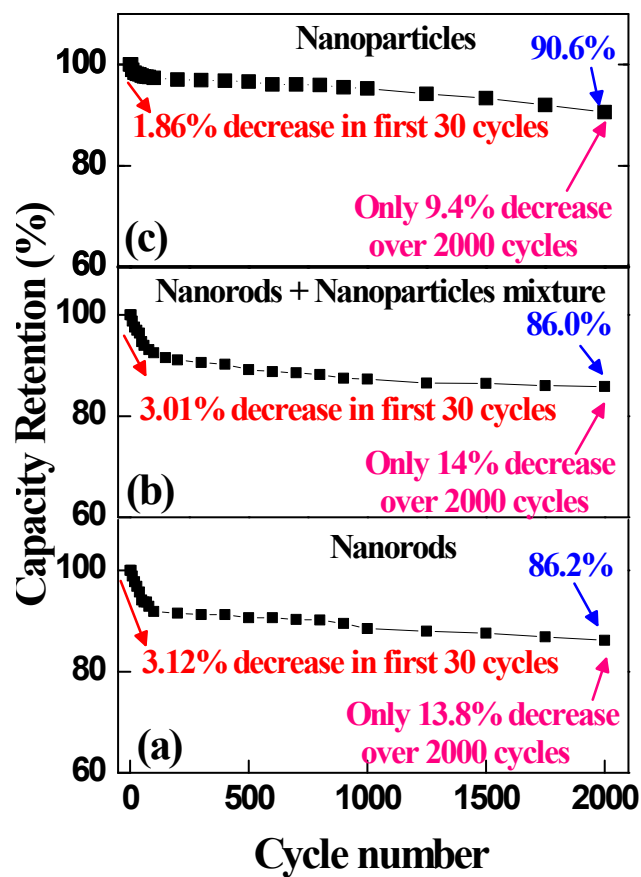


Fig. S4: Capacity retention curves of (a) nanorods, (b) nanorods-nanoparticles mixture and (c) nanoparticles samples over 2000 cycles.