

Supplementary material

Effect of time on a hierarchical corn skeleton-like composite of CoO@ZnO as capability electrode material for high specific performance supercapacitors

Yedluri Anil Kumar* and Hee-Je Kim

^a School of Electrical Engineering, Pusan National University, Busandaehak-ro 63beon-gil,
Geumjeong-gu, Busan, 46241, Rep. of KOREA

*Corresponding Author. Tel: +82 51 510 2364. Fax: +82 51 513 0212. E-mail:

heeje@pusan.ac.kr (H.-J. Kim): yedluri.anil@gmail.com

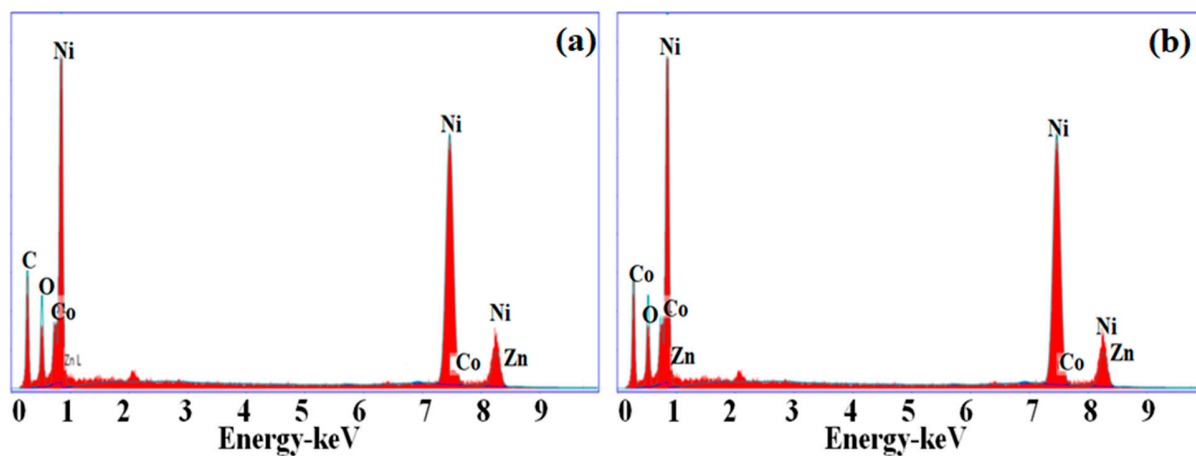


Fig S1. EDX pattern of CZ1h and CZ7h electrodes (a,b) nanostructures on Ni foam.

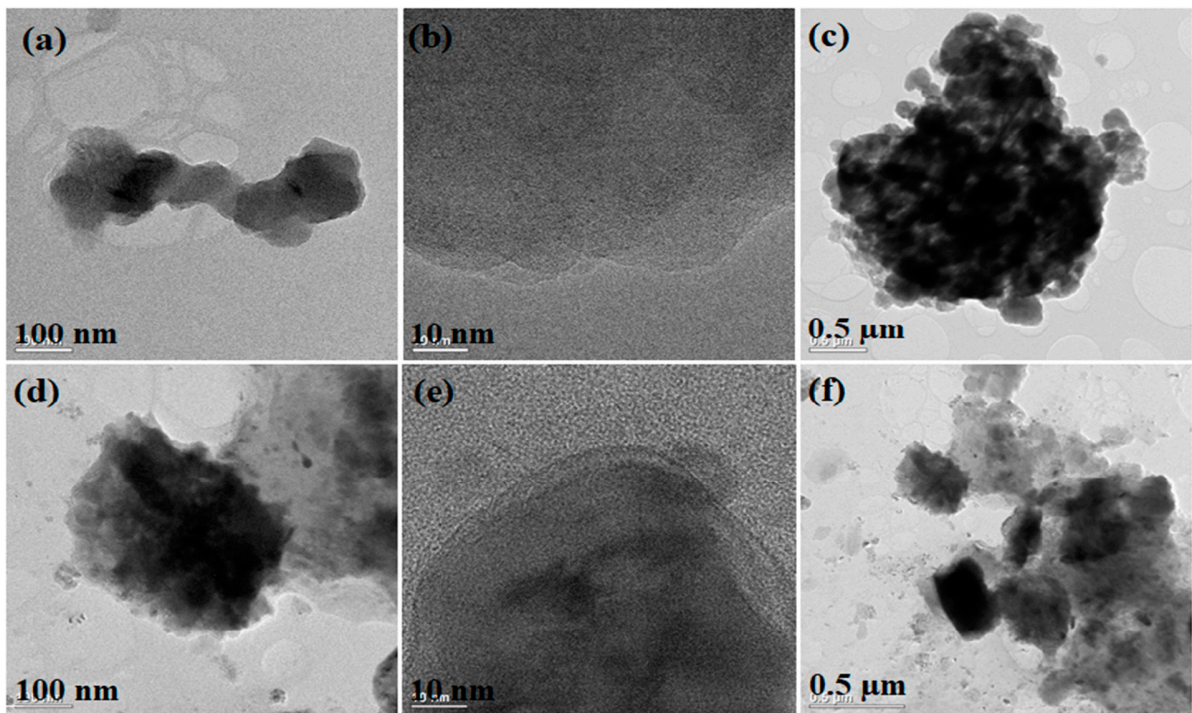


Fig S2. Shows the (a-c) TEM and HR-TEM images of CO sample structures and (d-f) TEM and HR-TEM images of ZO sample structures.

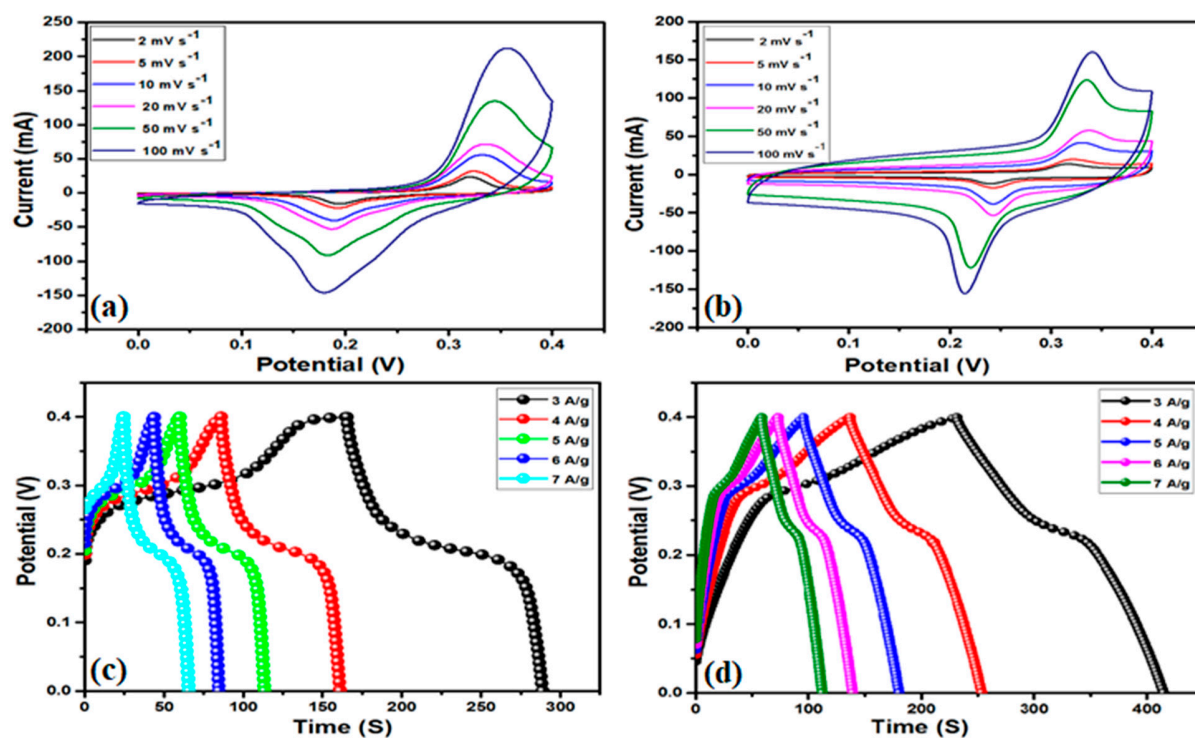


Fig S3. (a,b) CV curves of the CO and ZO electrodes at various scan rates, (c,d) GCD curves of the CO and ZO electrodes at different current densities from 3 A/g to 7 A/g.

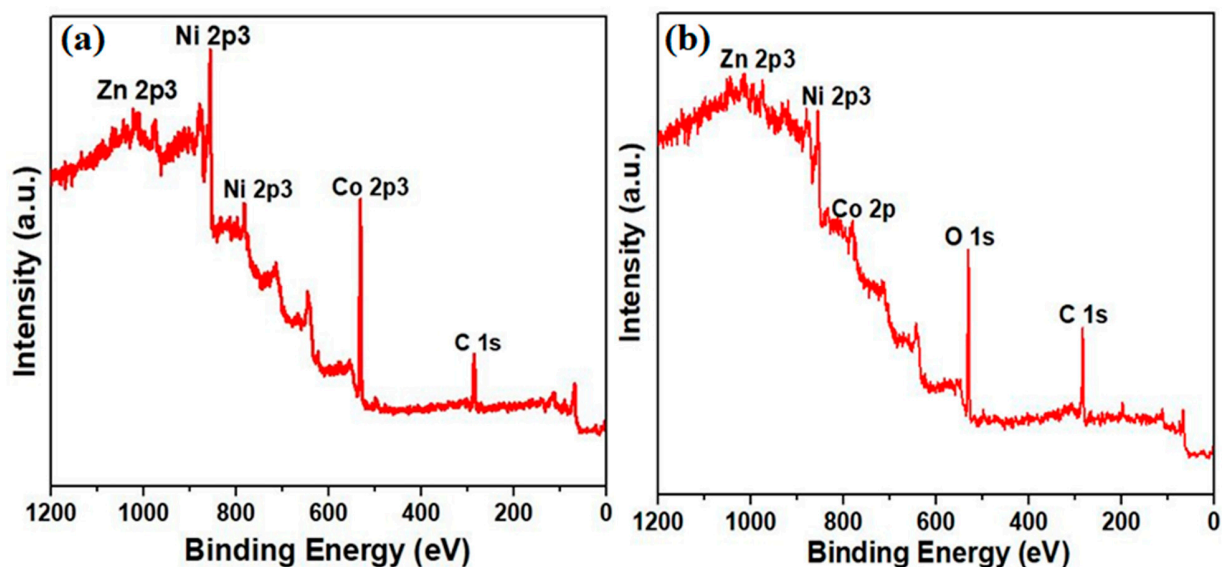


Fig S4. Shows the X-ray photoelectron spectroscopy (XPS) of CZ1h and CZ7h electrodes of survey spectra (a,b).

Fig. S4a in the supporting information shows the strong peaks for Zn2p3, Co2p, Ni 2p and O 1s in the CoO@ZnO-1H survey spectrum. The high resolution Zn 2p3 spectrum shows the main peak at 1022, another strong peak for Co 2p spectrum main peak at 781.8. The strong resolution XP spectrum of Ni 2p3, which is strong peak at 856.3. In addition one more spectra of O 1s showed peak at 531.3 in shown in Fig. S5a in the supporting information. Fig. S4b in the supporting information shows the strong peaks for Zn2p3, Co2p, Ni 2p and O 1s in the CoO@ZnO-7H survey spectrum. The high resolution Zn 2p3 spectrum shows the main peak at 1022.4, another strong peak for Co 2p spectrum main peak at 780.4. The strong resolution XP spectrum of Ni 2p3, which is strong peak at 856.0. In addition one more spectra of O 1s showed peak at 529.0 in shown in Fig. S4a in the supporting information.