Supporting Information

Designed Formation of Co_3O_4/Fe_2O_3 Double-Shelled Nanocages with Enhanced Pseudocapacitance

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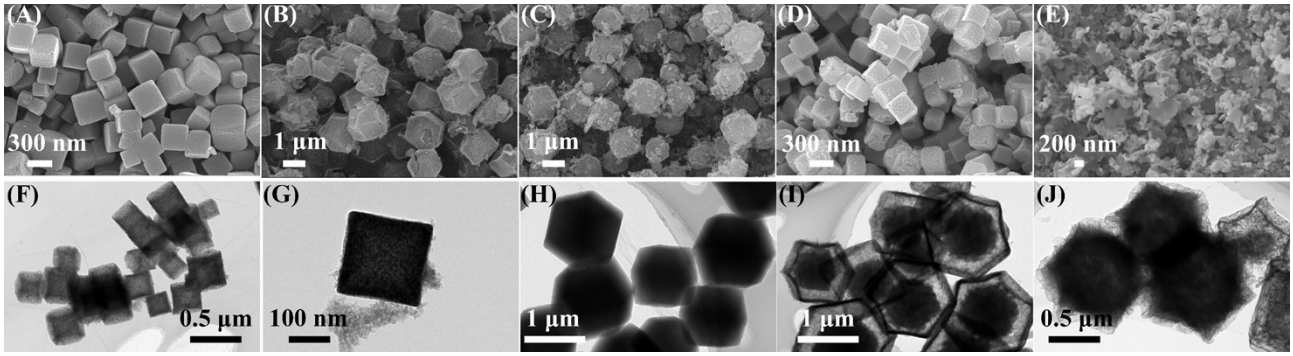

Fig.S1 SEM images: (A) Co-Fe PBA, (B) ZIF-67/Co-Fe PBA-E, (C) ZIF-67/Co-Fe PBA-F, (D) Co_3O_4/Fe_2O_3 NCs, (E) increasing heating rate during calcination process. TEM images: (F) Co_3O_4/Fe_2O_3 NCs for low magnification, (G) Co_3O_4/Fe_2O_3 NCs for high magnification, (H) ZIF-67, (I) ZIF-67/Co-Fe PBA, (J) Co_3O_4 Ps.

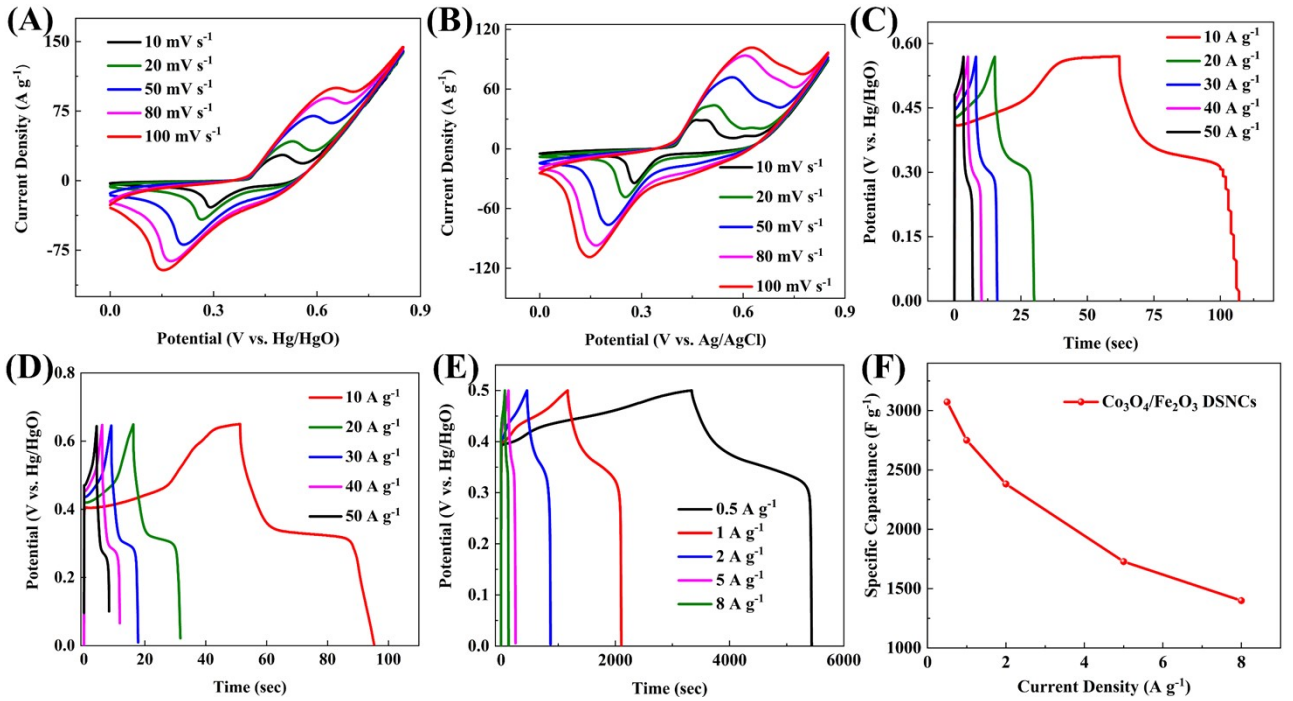

Fig.S2 CV curve: (A) Co_3O_4/Fe_2O_3 NCs, (B) Co_3O_4 Ps. GCD curve: (C) Co_3O_4/Fe_2O_3 NCs, (D) Co_3O_4 Ps, (E) Co_3O_4/Fe_2O_3 DSNCs at low current densities. (F) The specific capacitance diagram of Co_3O_4/Fe_2O_3 DSNCs at low current densities.

The specific capacitance (C) is obtained from CV curves at different scan rates[1]:

$$C = \frac{\int IdV}{2v \cdot m \cdot \Delta V}$$

where $\int IdV$ is the integral area of CV curve, v is the scan rate (V/s), m is the mass of the electrode active material (g), and ΔV is the potential window (V).

According to the above formula and CV curves of the cycling performance, Fig.S3 is calculated.

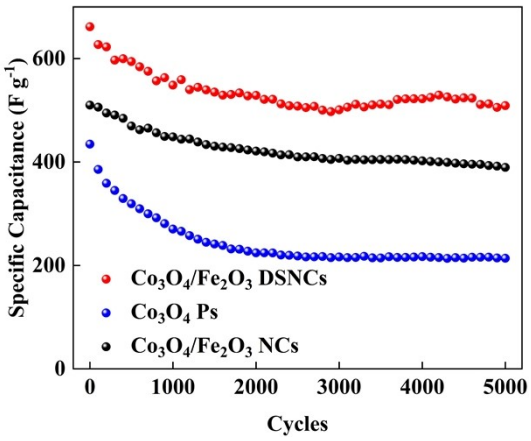

Fig.S3 The relationship between specific capacitance and cycles

References

1. G. Harichandran, S. Radha, P. Divya and J. Yesuraj, *J. Mater. Sci.-Mater. El.*, 2019, **31**, 1646-1653.