

ESI

Carbonization of Solvent and Capping Agent Based Enhancement in the Stabilization of Cobalt Nanoparticles and Their Magnetic Study

Neha Arora and Balaji R. Jagirdar*

Department of Inorganic & Physical Chemistry, Indian Institute of Science, Bangalore 560012,
India

Figure S1. Powder X-ray diffraction patterns of **Co1a** and **Co1b** nanopowders

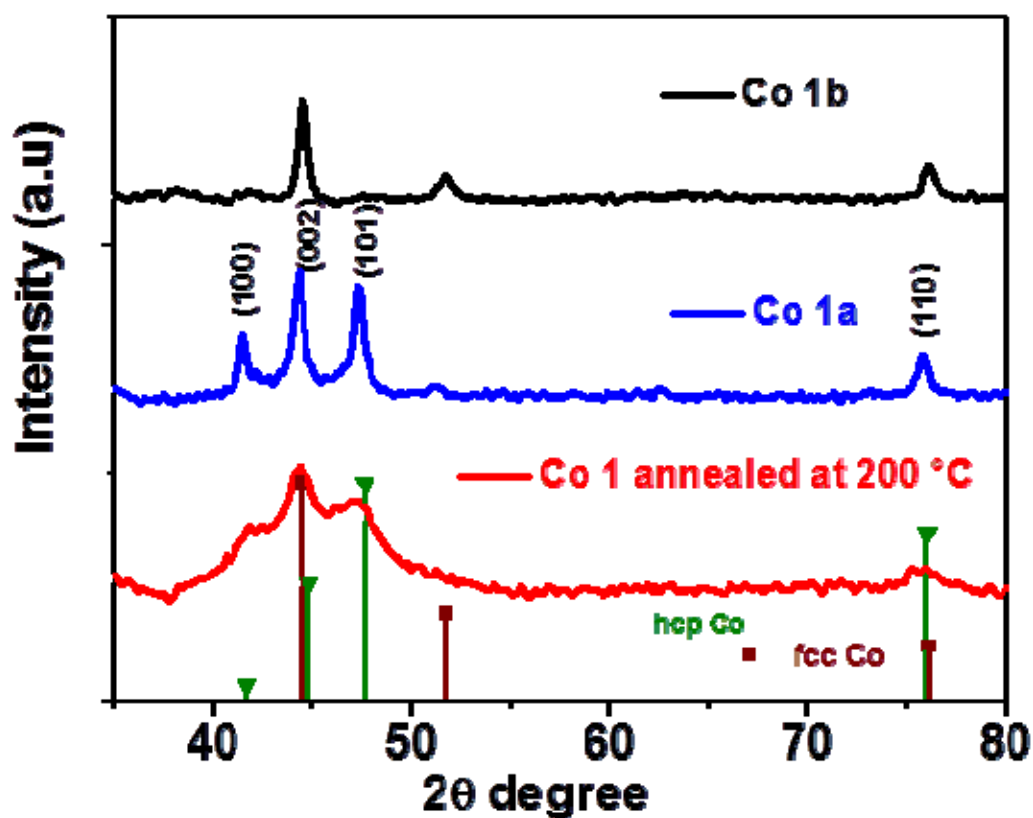


Figure S2. FESEM images (a, b) **Co2a**; (c, d) **Co2b**

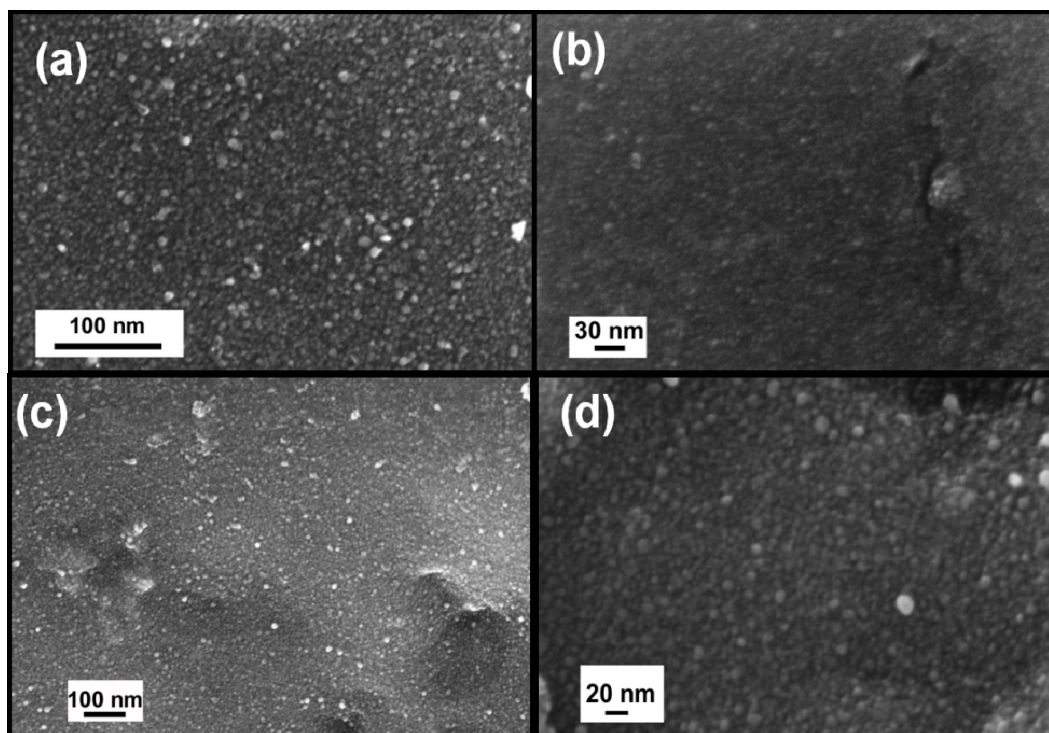


Figure S3. FESEM images (a, b) **Co1a**; (c, d) **Co1b**

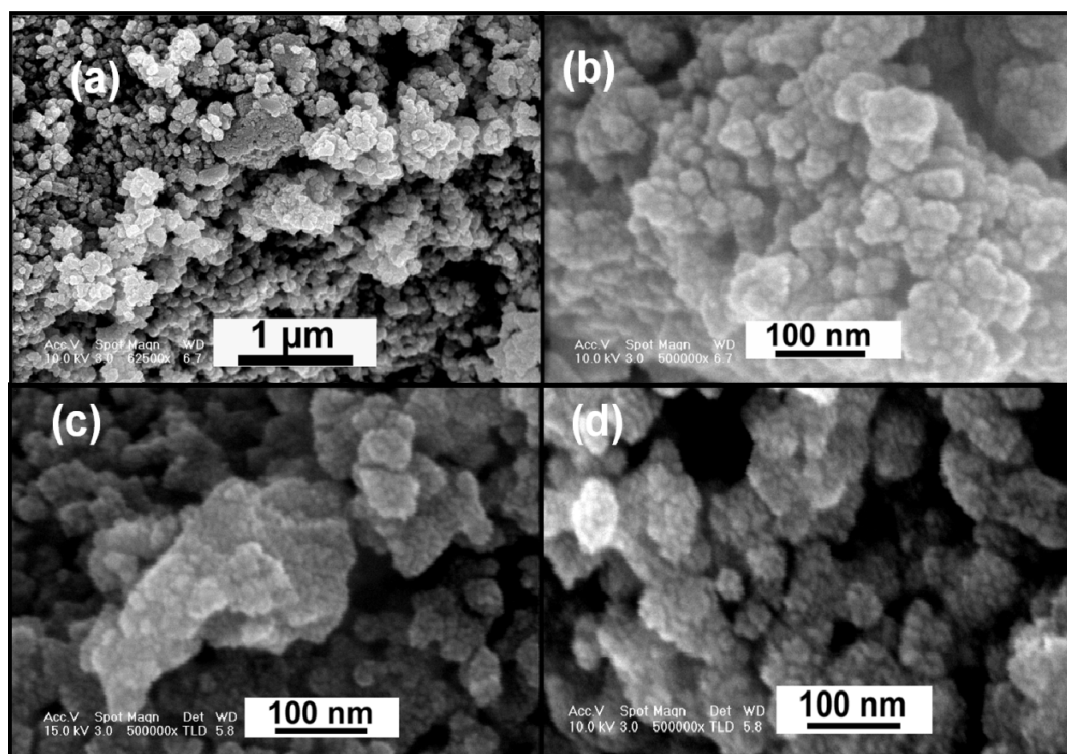


Figure S4. **Co1a** (a) BF TEM image; (b) SAED pattern

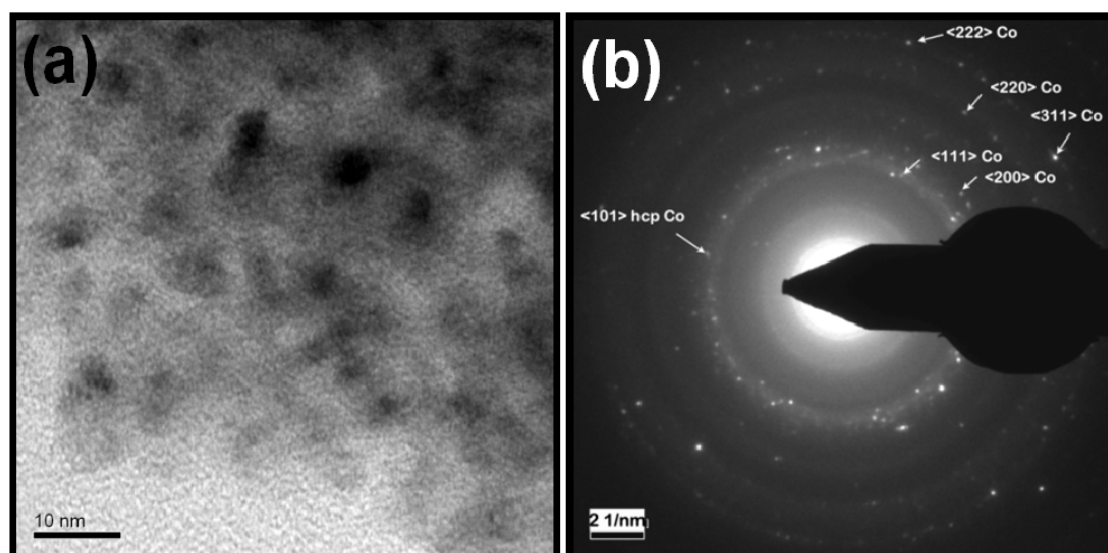


Figure S5. PXRD pattern of **Co2b** after thermal analysis

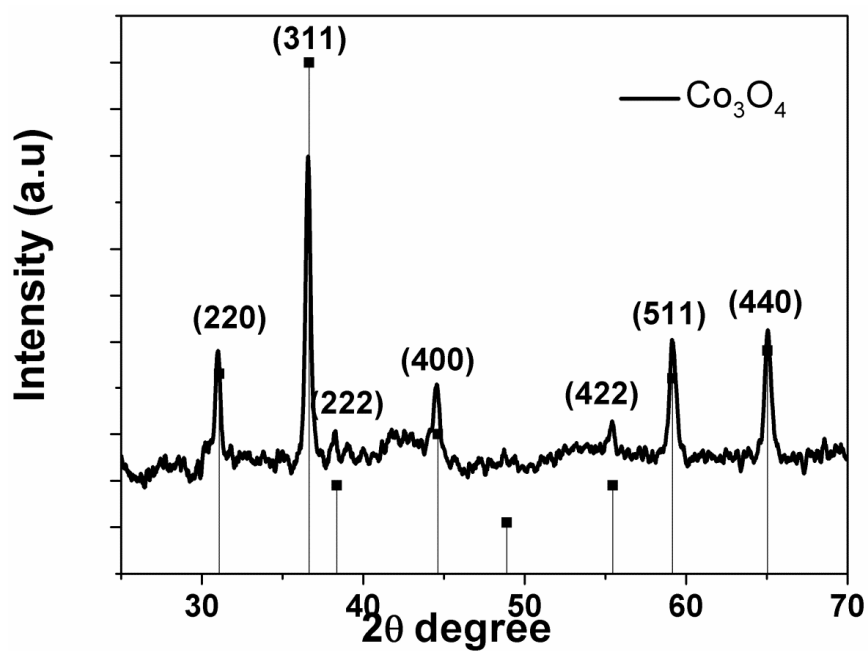


Figure S6. Raman spectrum of **Co2b** after thermal analysis

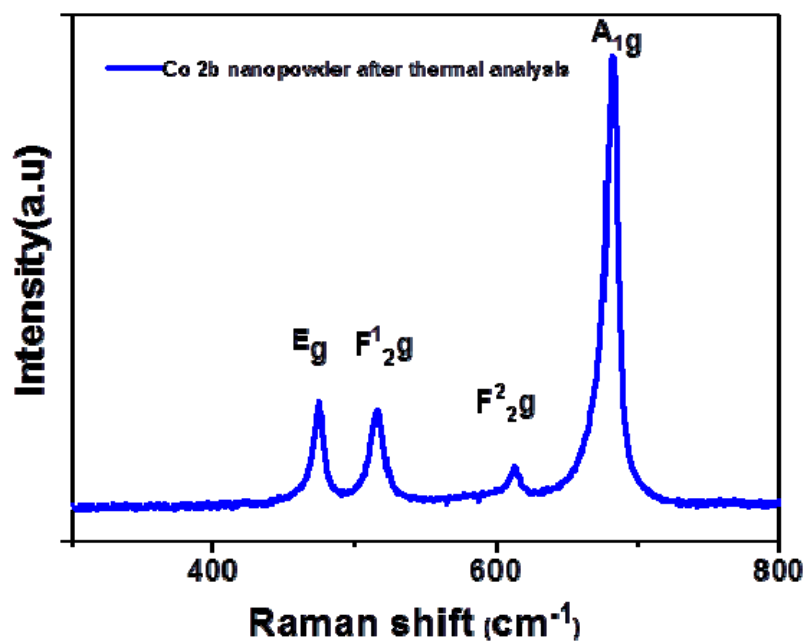


Figure S7. TGA of **Co2** (Co-HDA-toluene) sample

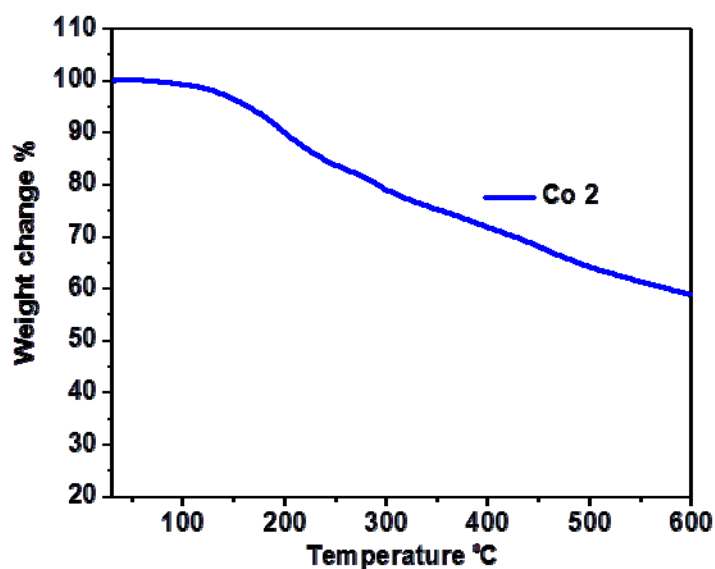


Figure S8. Field dependence of magnetization measured at 5 K and 300 K for a: **Co2a**; b: **Co2b** after storage under ambient conditions for a year

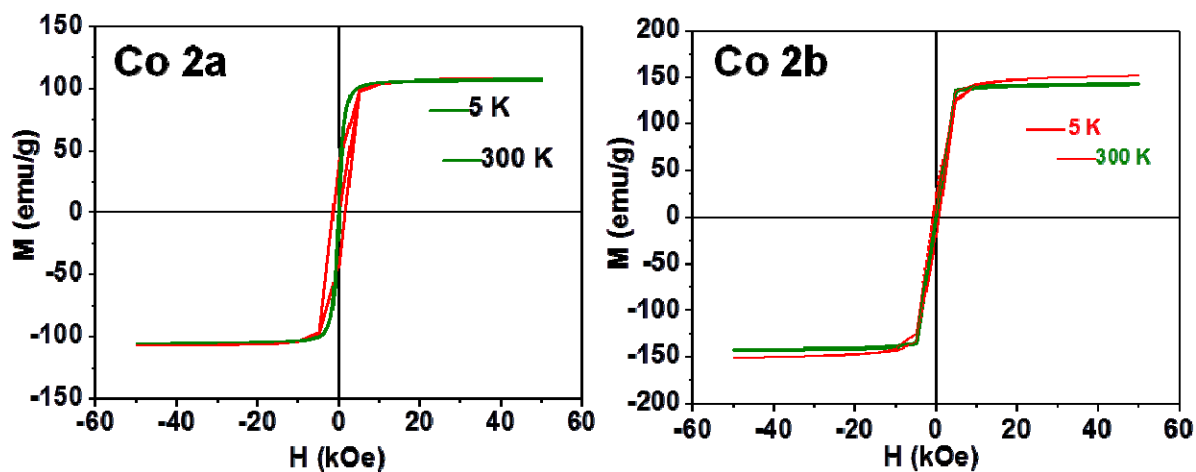


Fig. S9. MS profile of $m/z = 28$ (N_2) for HDA capped Co nanoparticles (Co2), ramp rate is 5 K min^{-1}

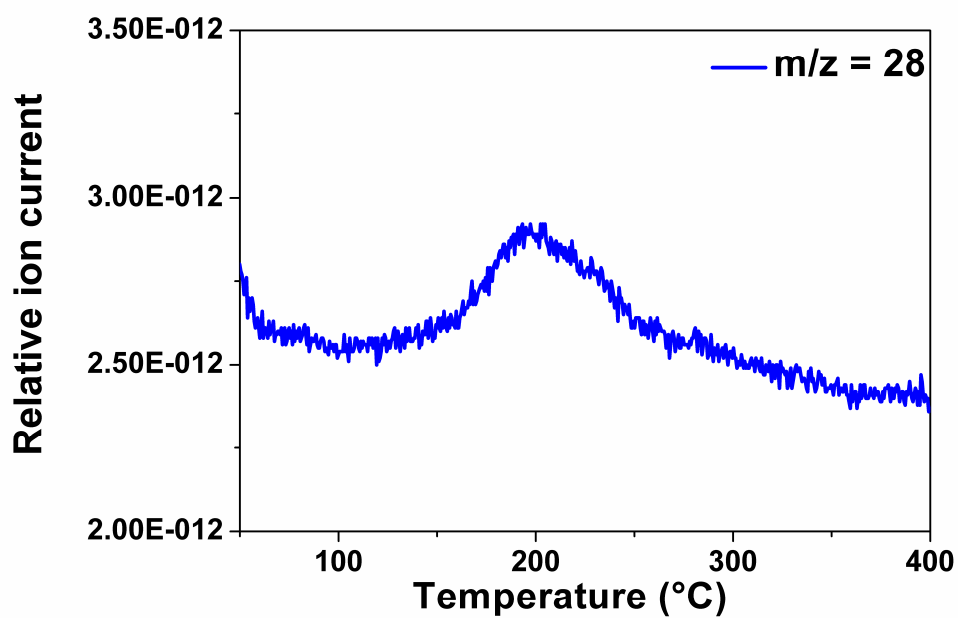


Fig. S10. EDX analysis of HDA capped Co nanoparticles (Co2)

