

SI data -RA-ART-02-2020-001191

**Synthesis of homo- and hetero-metallic cobalt and zinc nano oxide particles
by a calcination process using coordination compounds: Their
characterization, DFT calculations and capacitance behavioural study**

Sartaj Tabassum,^{φ, \$,*}, Mohammad Usman^φ, Hamad A. Al-Lohedan^{\$}, Mahmood

M. S. Abdull^{\$}, Mohamed A. Ghanem,^{\$} Merfat S. Al-Sharif^{\$}, Mohd Sajid Ali^{\$}.

^φ Department of Chemistry, Aligarh Muslim University, Aligarh-202002, India

^{\$}Department of Chemistry, College of Sciences, King Saud University, P.O. Box 2455,
Riyadh 11451, KSA.

*corresponding author, email: tsartaj62@yahoo.com, +919358255791.

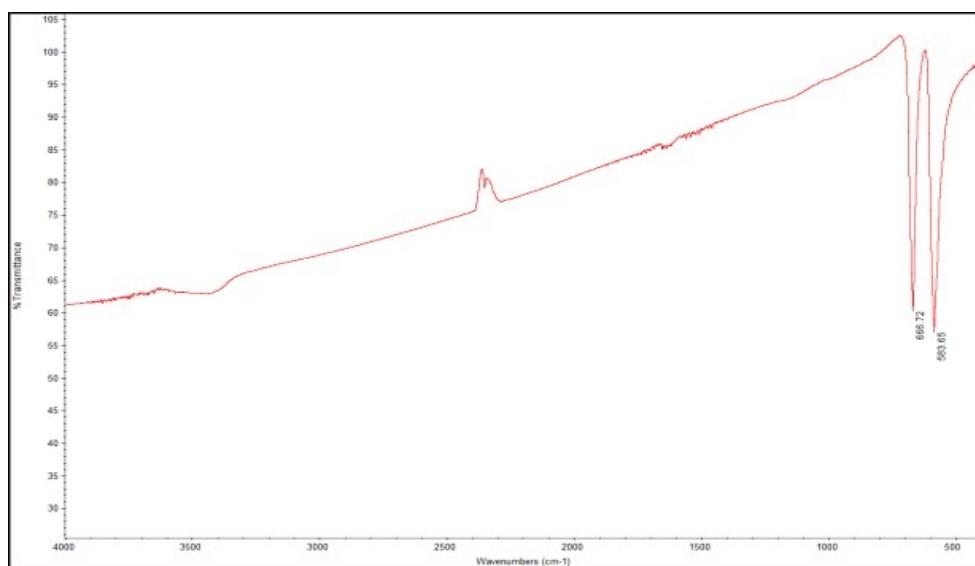


Fig.S1 FTIR spectrum of Co_3O_4 nanoparticles.

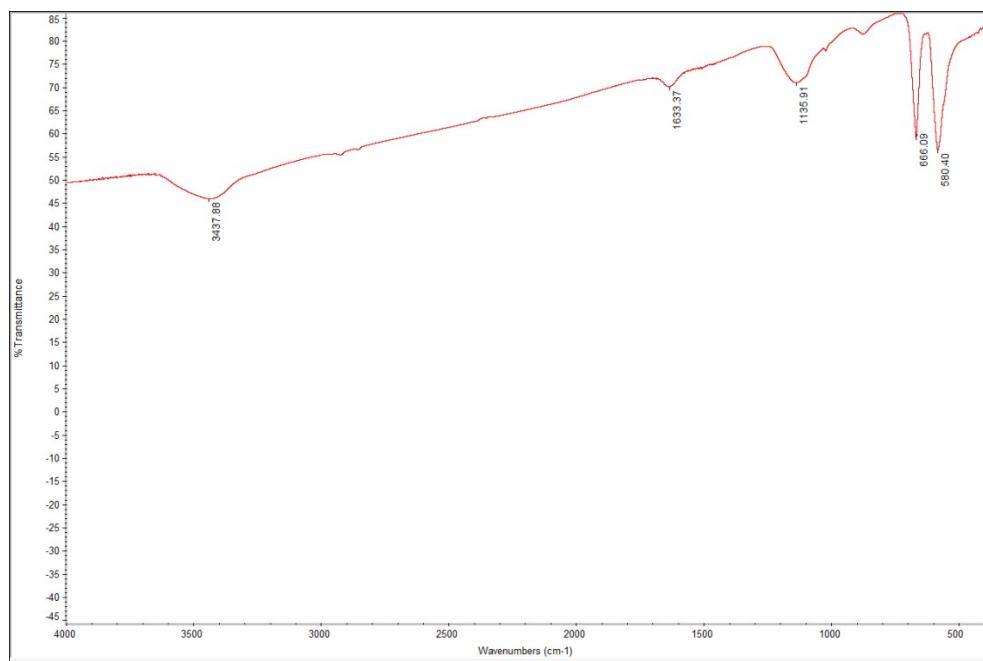


Fig. S2 FTIR spectrum of ZnOCo_3O_4 .

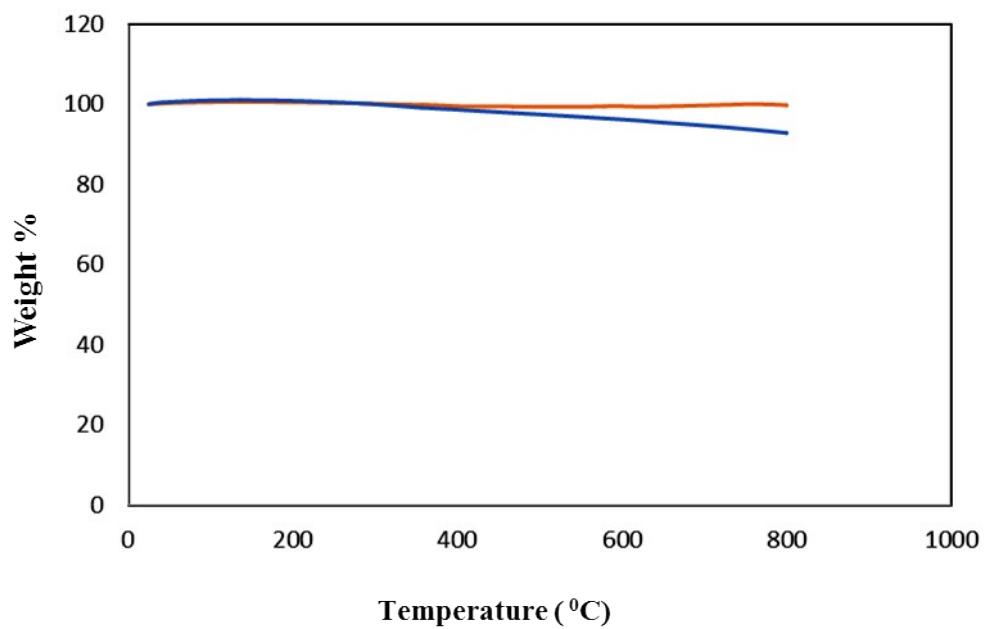


Fig. S3 TGA of the nanoparticles.

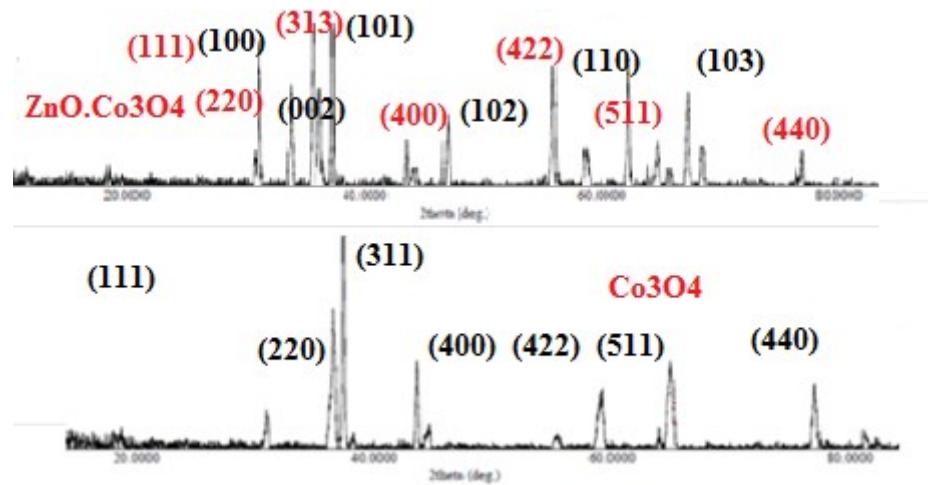


Fig. S4 XRD pattern line with lattice parameters $\text{ZnO} \cdot \text{Co}_3\text{O}_4$ and Co_3O_4 . (JCPDS Data Card No: 36-1451)

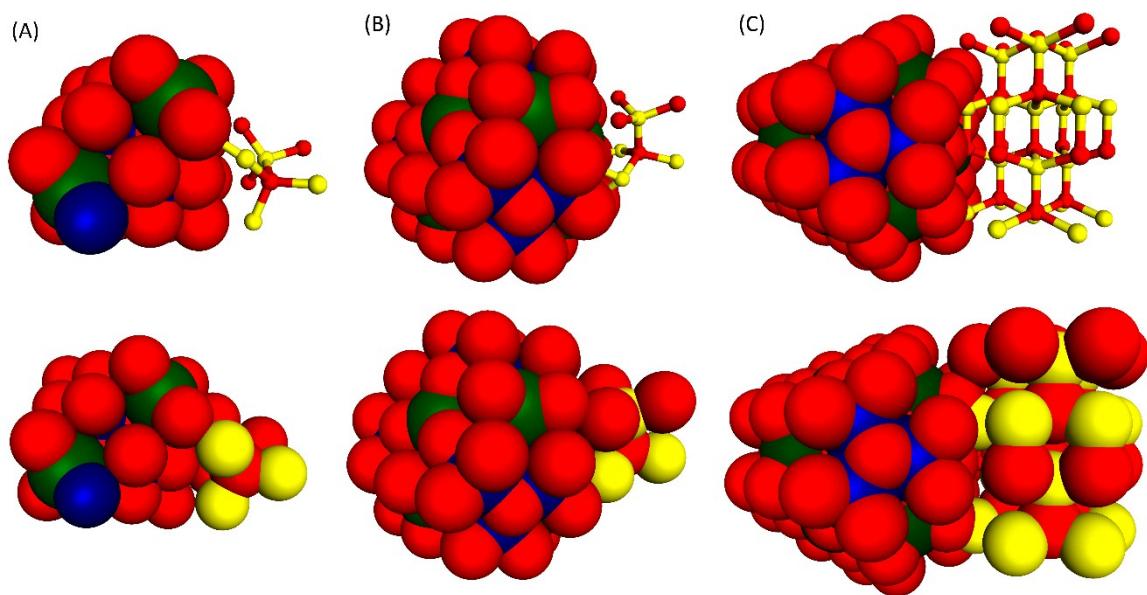


Fig. S5. The Illustration of CPK models of the global minimum energy geometry of $\text{Co}_3\text{O}_4 \cdot \text{ZnO}$ adducts, (A) Model 1, (B) Model 2, and (C) Model 3.

