

Supporting information

Enrichment in the field emission properties of NiCo₂O₄ nanostructures by UV/Ozone treatment

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Figure S1

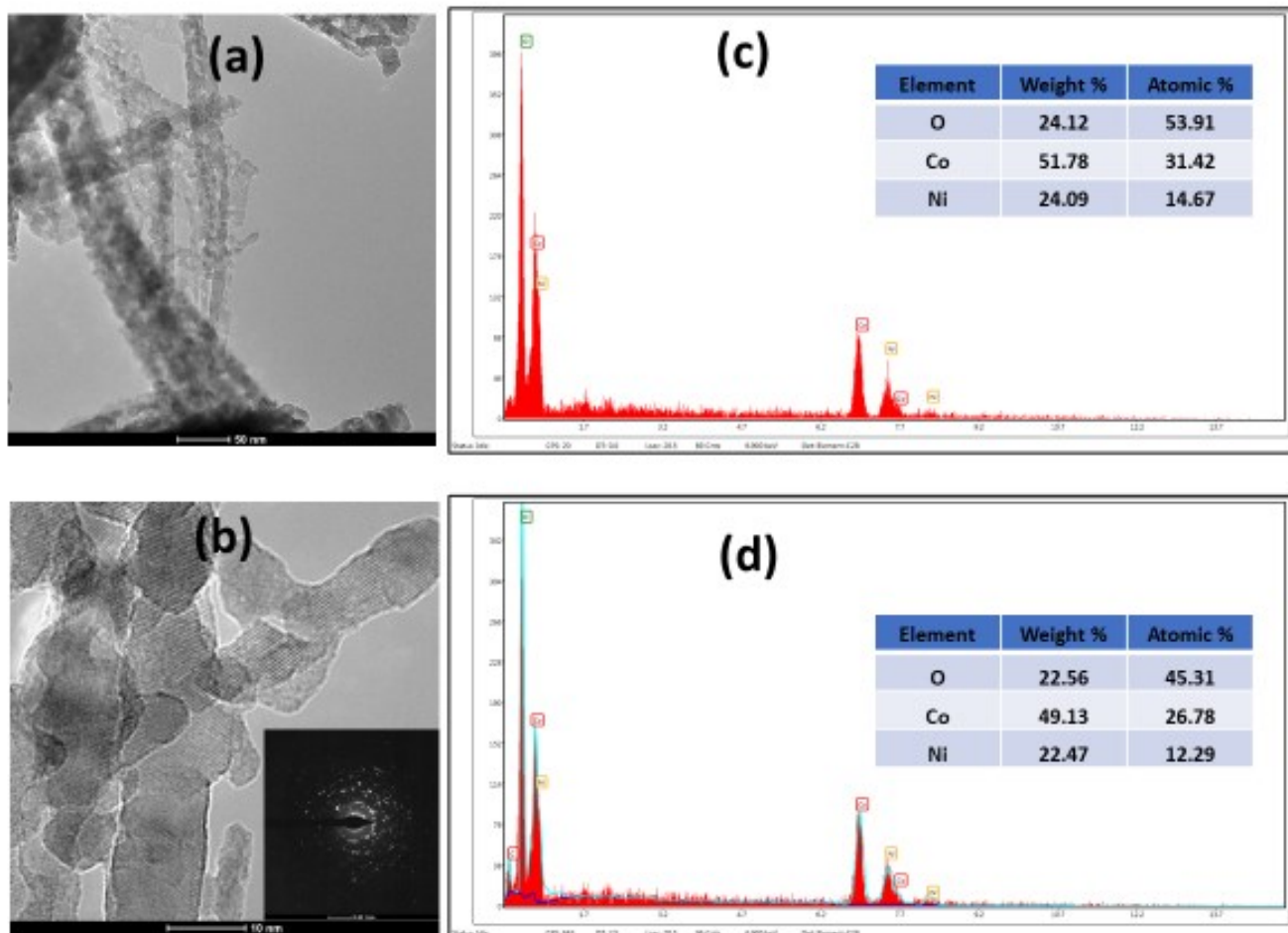


Figure 1. (a) HRTEM and (b) TEM (inset SAED pattern) images, (c-d) EDS spectra of NiCo_2O_4 and $\text{NiCo}_2\text{O}_4\text{-UVT}$.

Figure S2

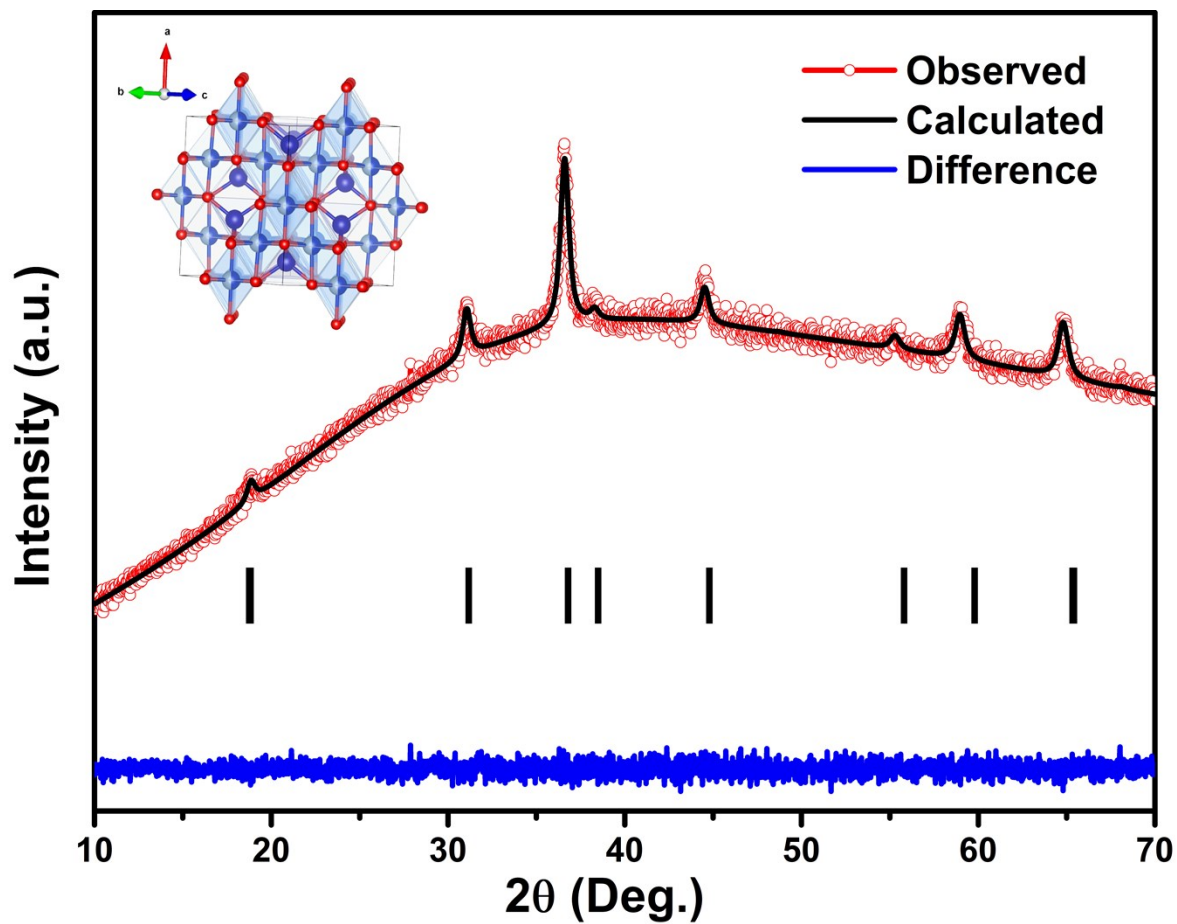


Figure S2. Rietveld refined profile of NiCo₂O₄-UVT with fair R-Bragg = 0.190 and goodness of fit = $\chi^2 = 1.55$, inset crystallographic structure derived from experimental results

Figure S3

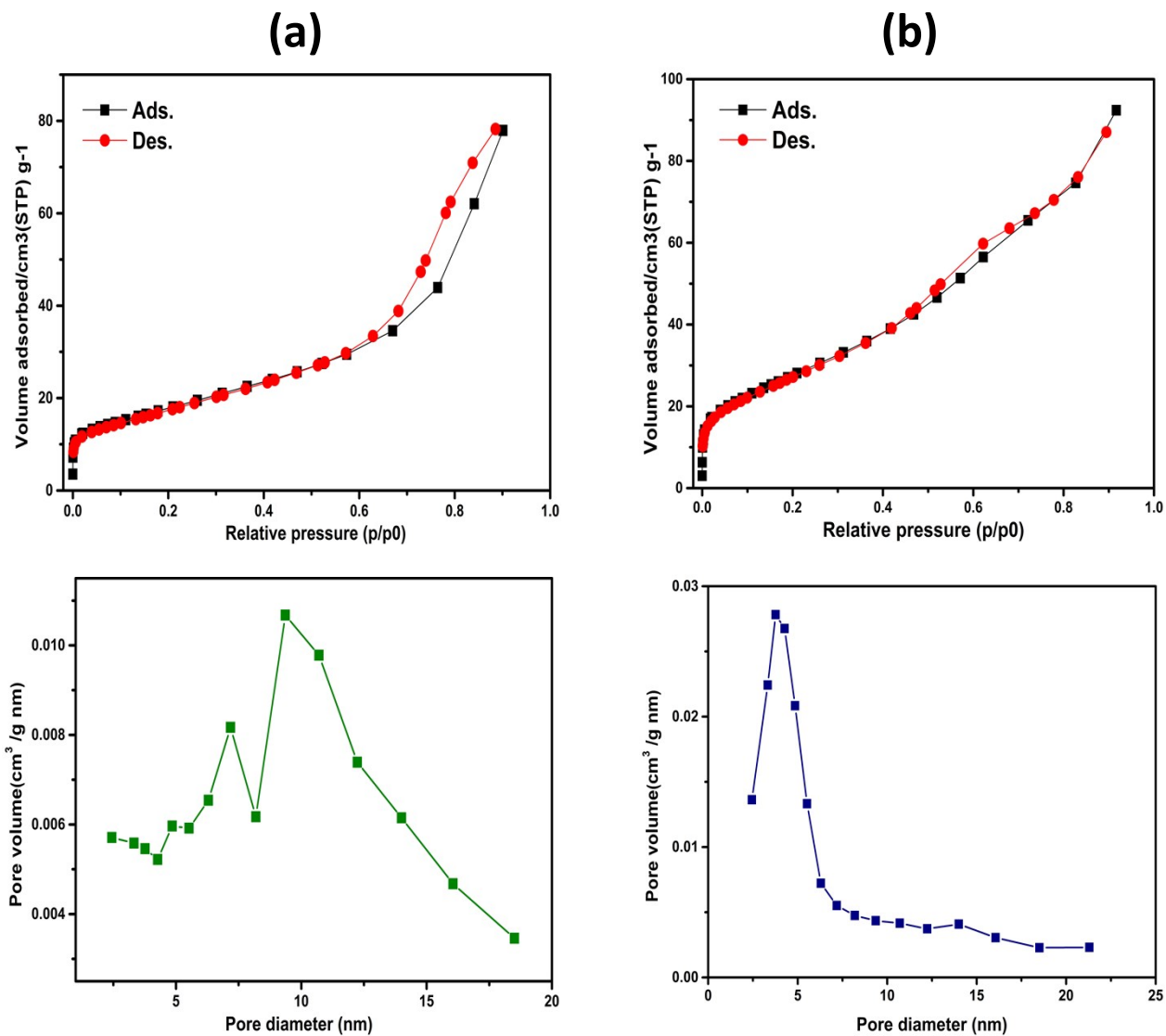


Figure S3. Nitrogen adsorption–desorption isotherms and (b) the corresponding pore size distribution of NiCo₂O₄-UVT.

Sample	BET surface area (m ² /g)	BJH pore size (nm)	Pore volume (cm ³ /g)
NCO	63.5	7.58	0.12
NCO-UVT	96.06	5.95	0.14

Table S1. Peak area ratios corresponding to NiCo₂O₄ and NiCo₂O₄-UVT from the XPS spectra

Sample	2P _{1/2} Co ²⁺	2P _{1/2} Co ³⁺	2P _{3/2} Co ²⁺	2P _{3/2} Co ³⁺	2P _{1/2} Ni ³⁺	2P _{1/2} Ni ²⁺	2P _{3/2} Ni ³⁺	2P _{3/2} Ni ²⁺	O _{latt}	O _x	O-OH
NiCo ₂ O ₄	0.56	0.44	0.47	0.52	0.50	0.49	0.48	0.51	0.58	0.30	0.10
NiCo ₂ O ₄ - UVT	0.56	0.44	0.45	0.55	0.46	0.53	0.46	0.53	0.32	0.59	0.08

Figure S4

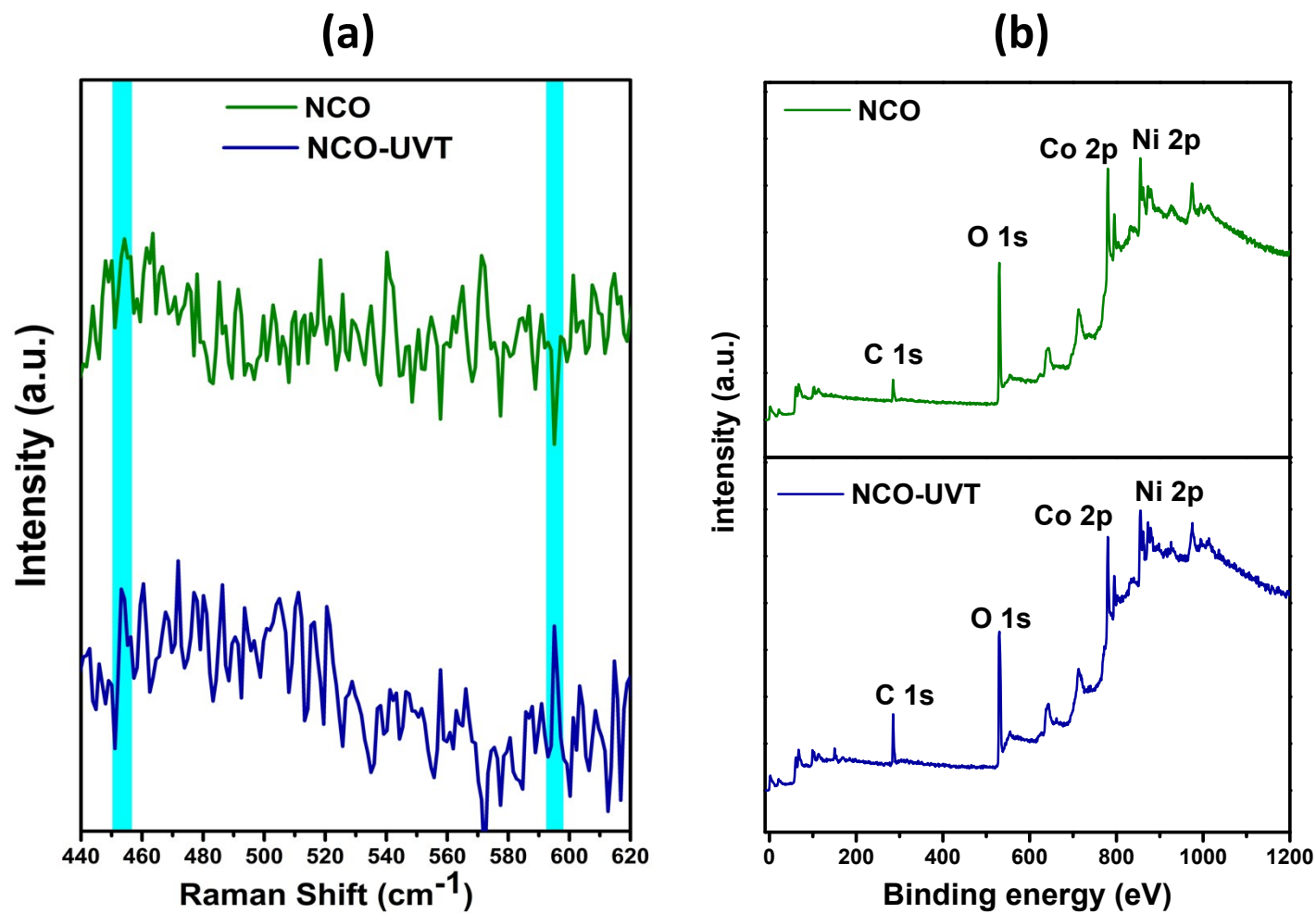


Figure S4. (a) High resolution Raman spectra, (b) XPS survey spectra of NiCo₂O₄ and NiCo₂O₄-UVT