

Impact of the Metal-Organic Frameworks Polymorphism on the Electrocatalytic Properties of CeO₂ Toward Oxygen Evolution

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Supplementary information file

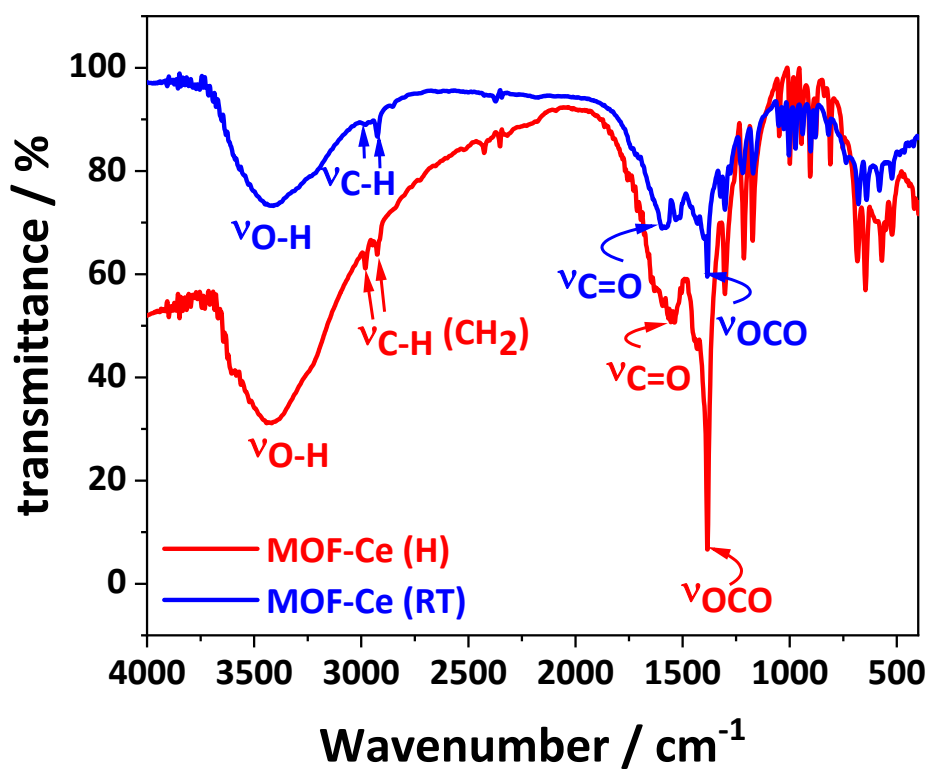


Figure S1: MOF-Ce (H) and MOF-Ce (RT) infrared spectra.

Table S1: Rietveld refinement data for the CeO₂ samples.

<i>samples</i>	<i>CeO₂ – ICSD 61595</i>		<i>agreement factors</i>		
	Size (nm)	a (Å)	R_{wp} (%)	R_{exp} (%)	χ^2
CeO ₂ – ICSD 61595	---	5.41	---	---	---
Sample 1	8.3	5.41	9.41	10.06	0.94
Sample 2	6.2	5.41	9.49	10	0.95

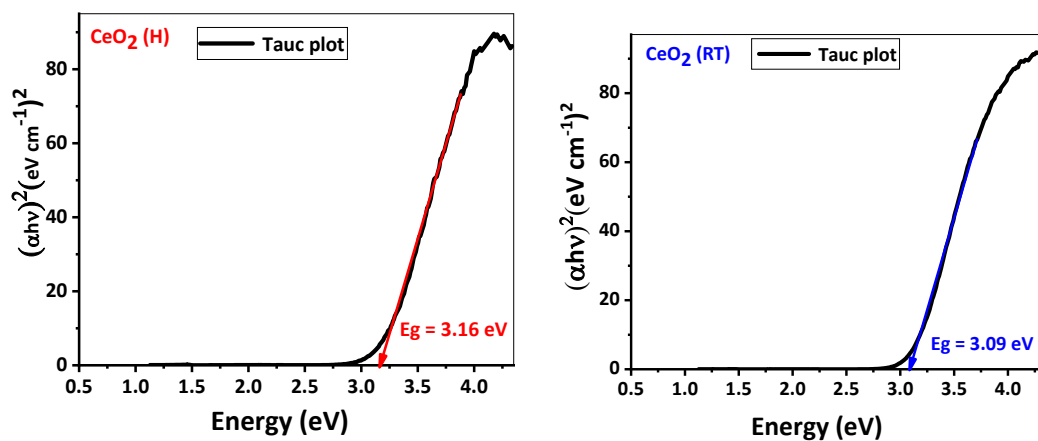


Figure S2: Tauc plots and bandgaps of the CeO_2 (H) and CeO_2 (RT).

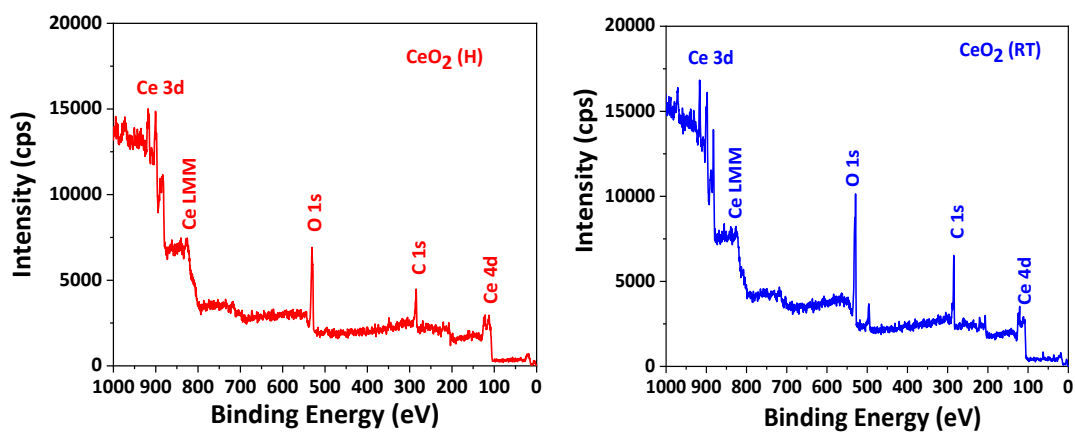


Figure S3: XPS survey spectra of CeO_2 (H) and CeO_2 (RT)

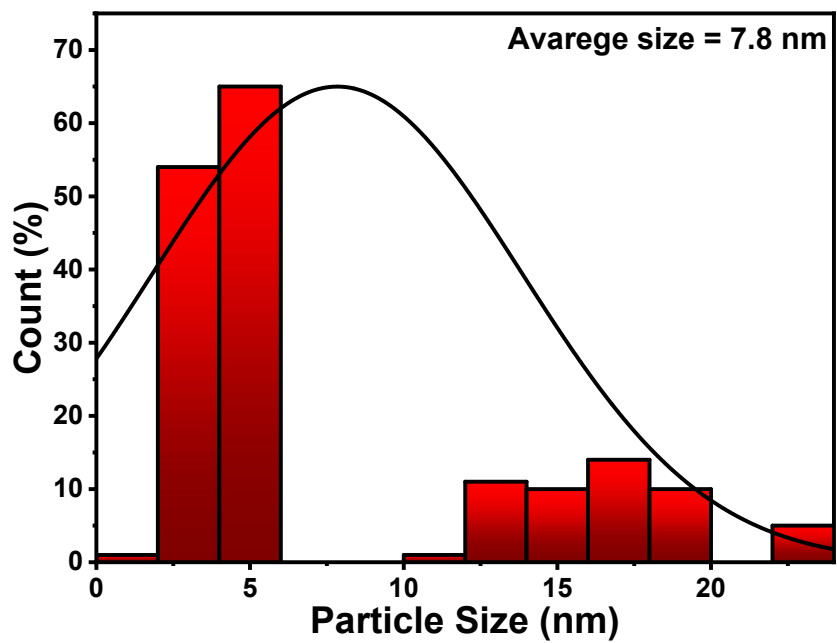


Figure S4: Particle size distribution for the CeO₂ (H) sample.

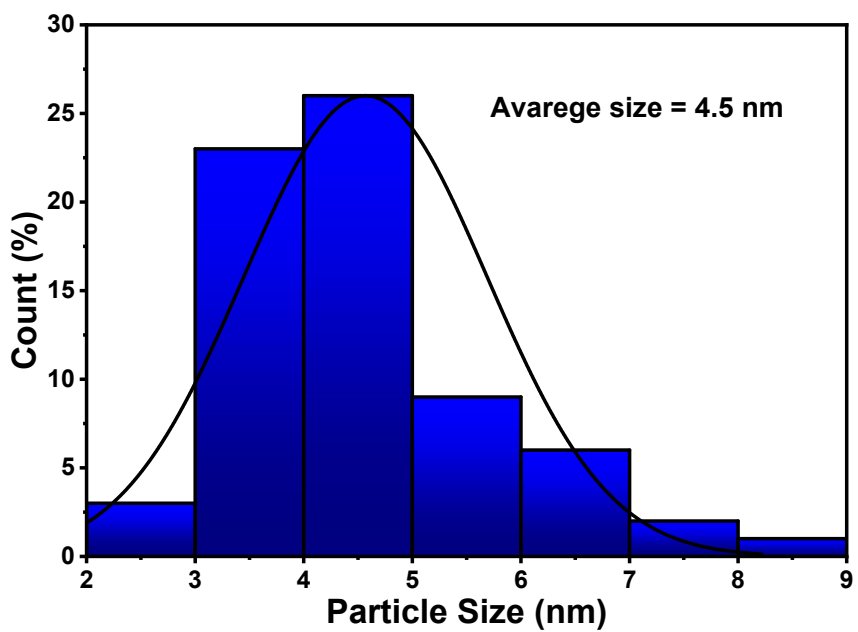


Figure S5: Particle size distribution for the CeO₂ (RT) sample.

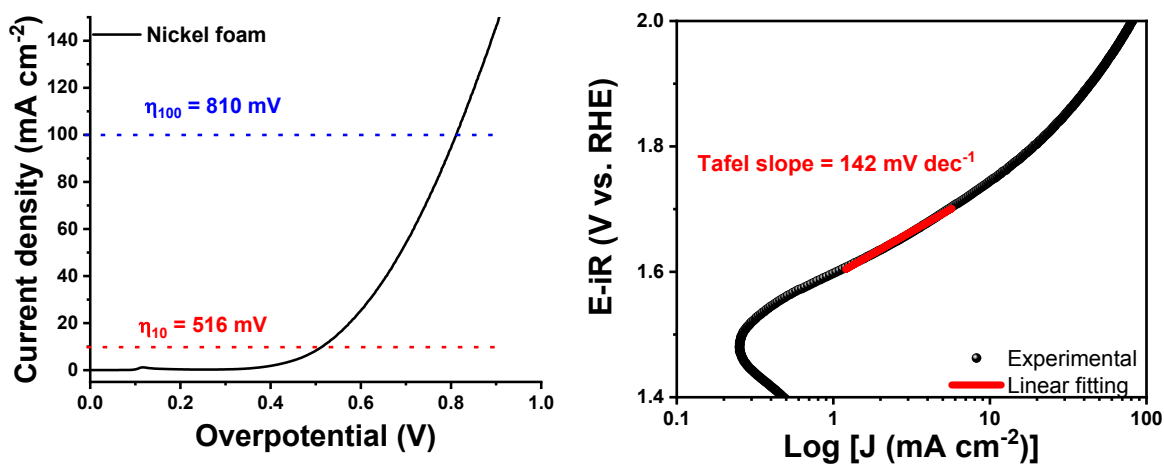


Figure S6: LSV curve and Tafel slope of the Ni foam substrate.

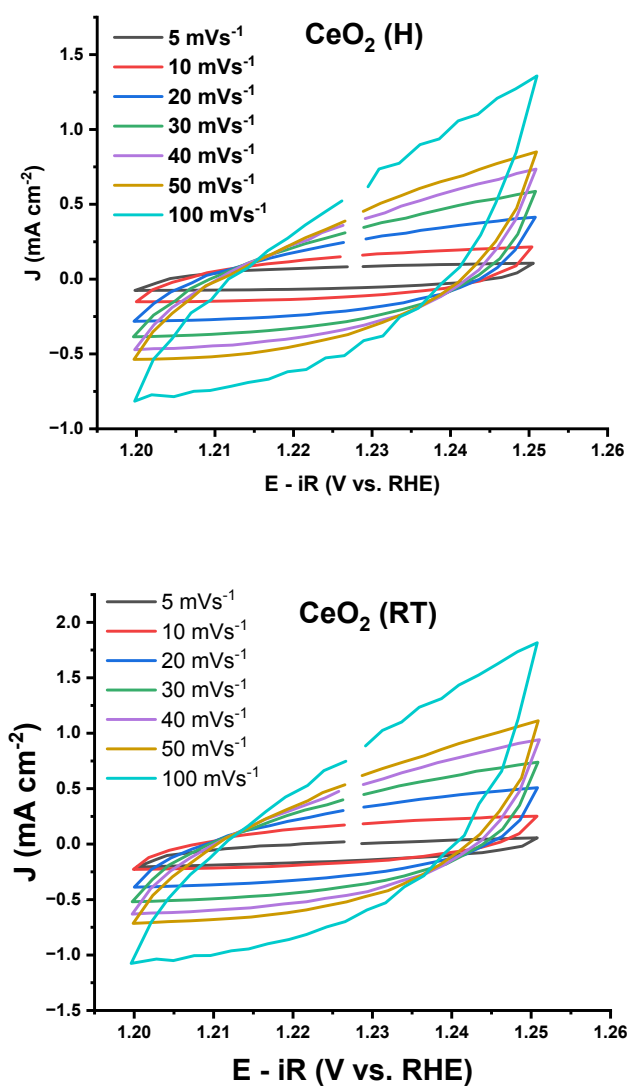


Figure S7: Cyclic Voltammograms of CeO_2 (H) and CeO_2 (RT) with scanning range of 10-100mV.

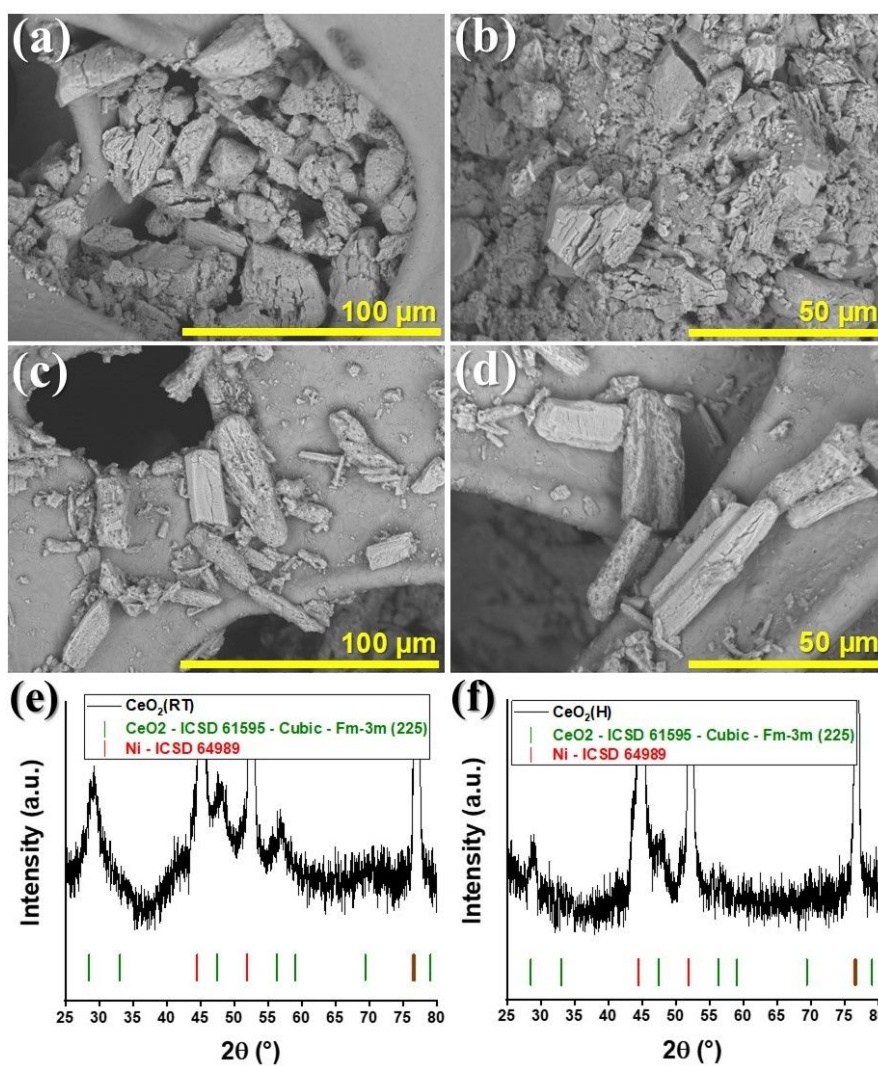


Figure S8: SEM images and XRD data for CeO₂ (H) (a,b,f) and CeO₂ (H) (c,d,e) electrocatalysts after the OER electrocatalysis

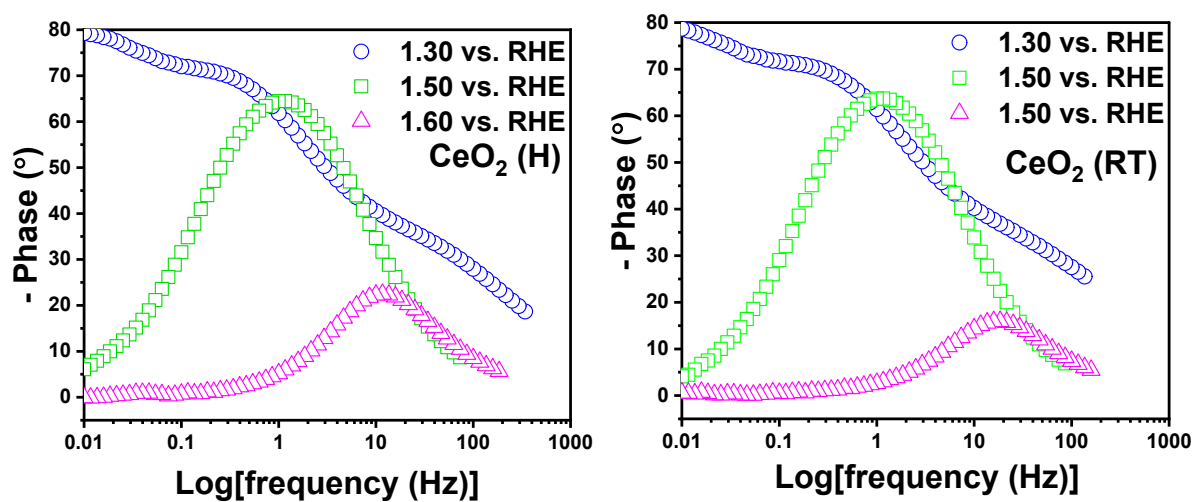


Figure S9: Bode plots of the electrocatalysts.