

## Supporting Information

### Non-Enzymatic Electrochemical Detection of Hemoglobin via Analyte-Triggered In Situ Phase Transformation of $\beta$ -Ni(OH)<sub>2</sub> Nanosheets

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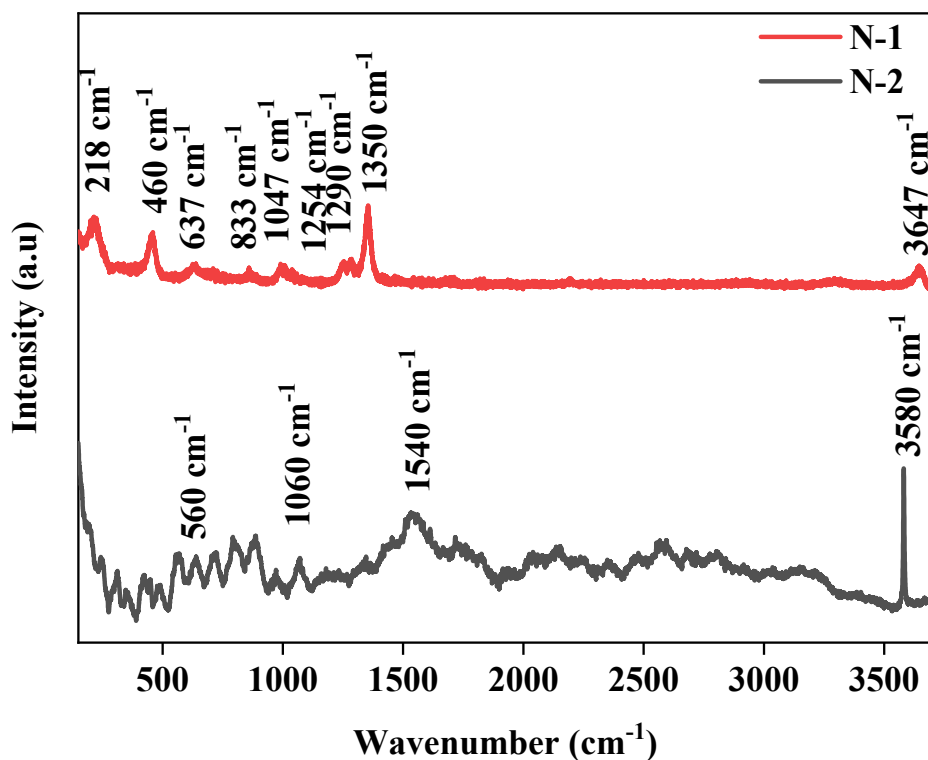


Fig S1. Raman Spectrum of alpha (N-1) and beta (N-2) nickel hydroxide

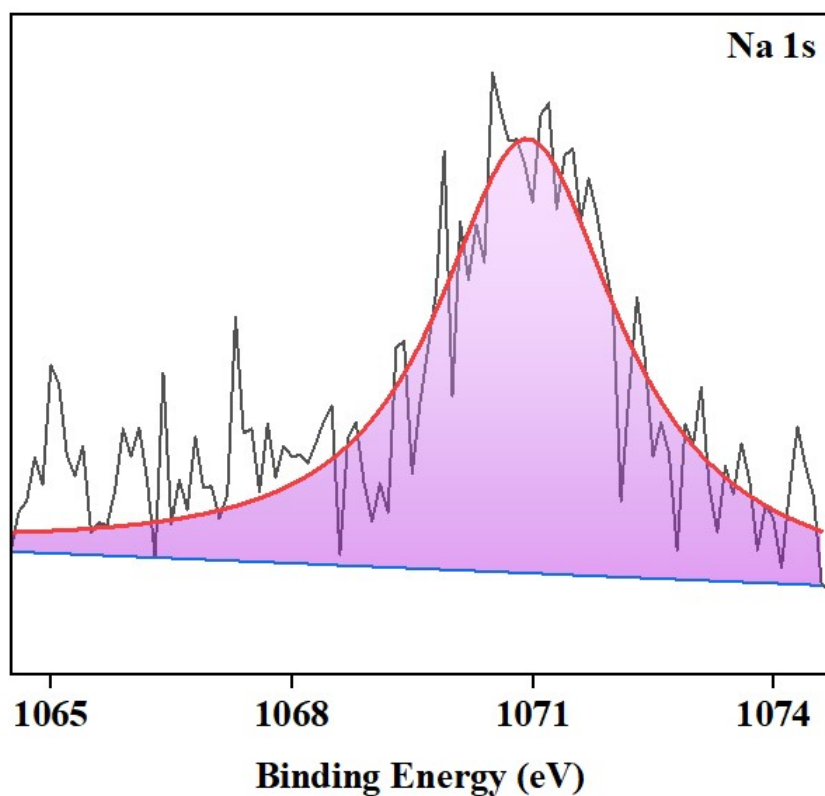


Fig S2 (A). XPS Spectrum of sodium in beta nickel hydroxide (N-2)

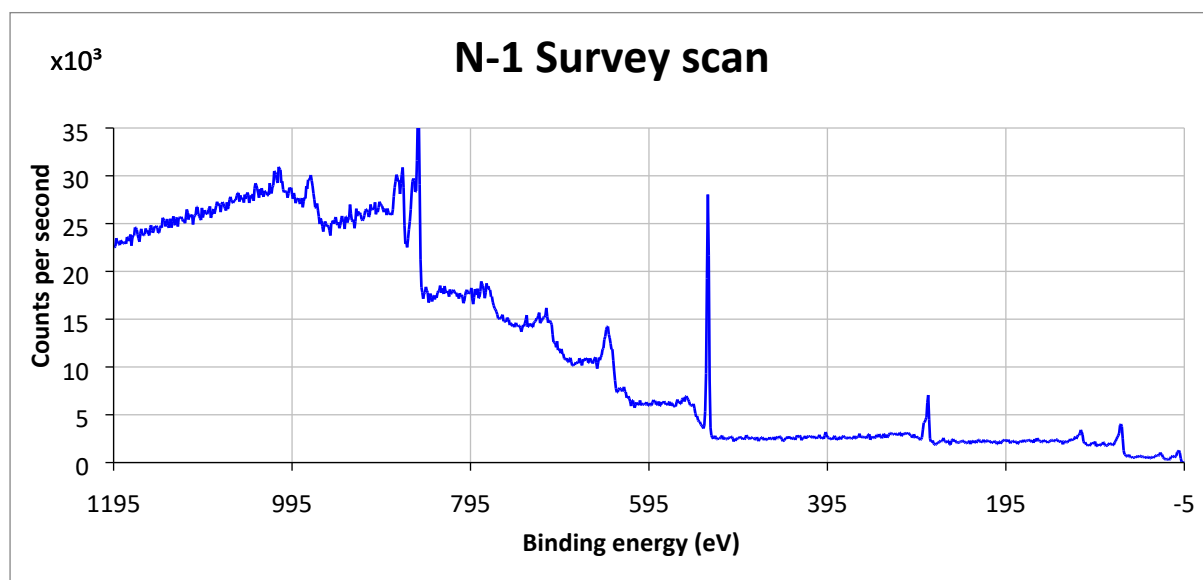


Fig S2 (B). XPS Spectrum of survey scan of N-1

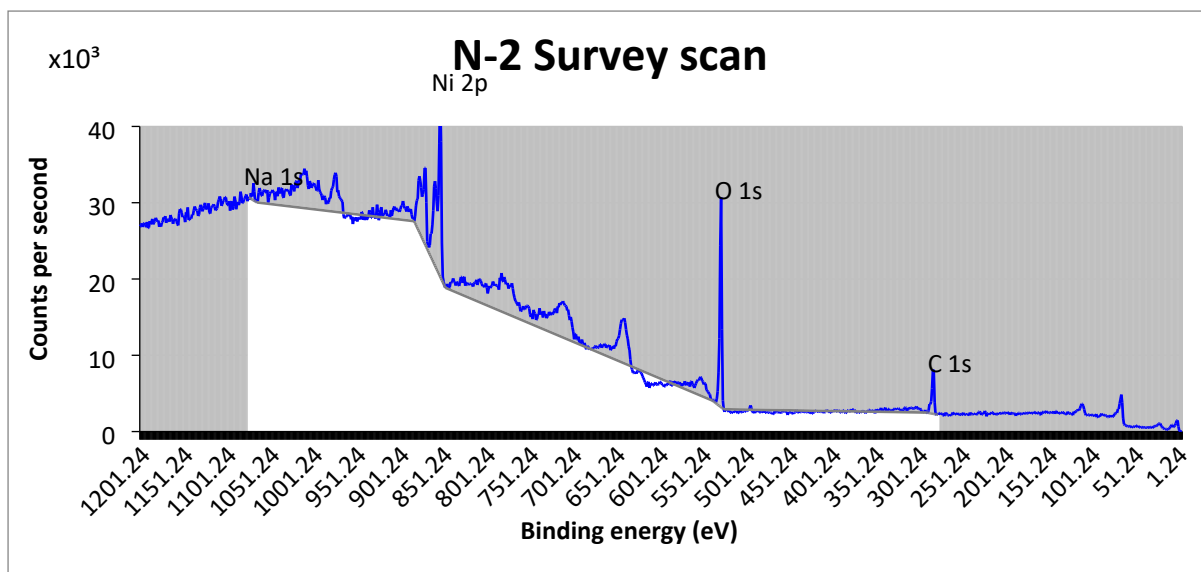


Fig S2 (C). XPS Spectrum survey scan of N-2

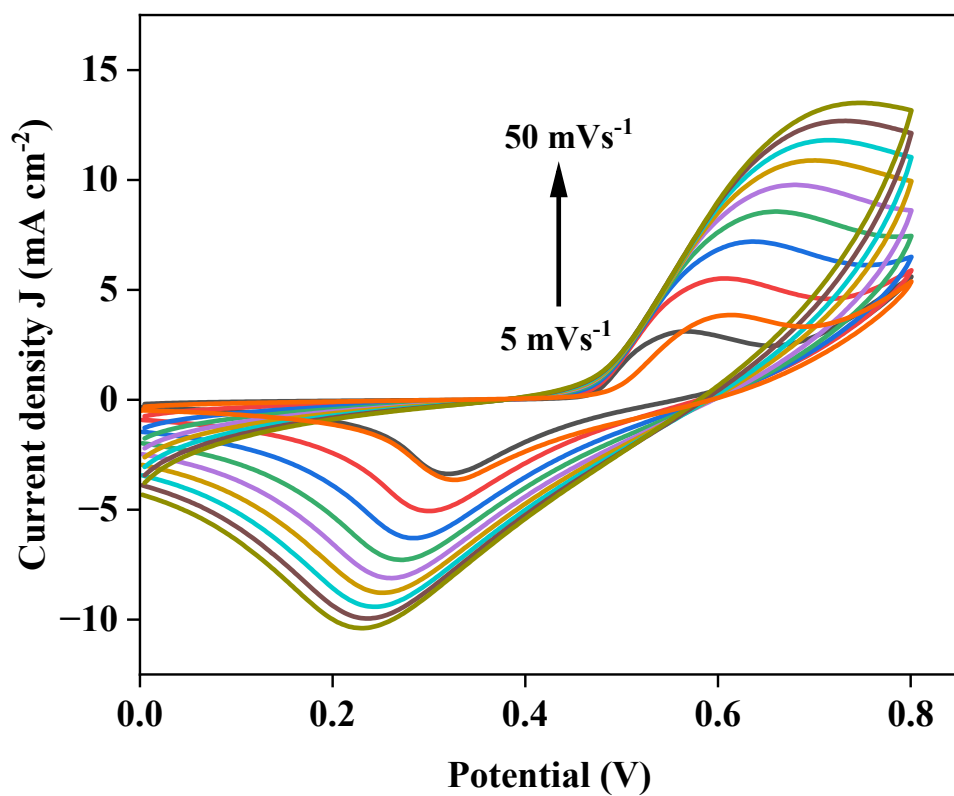


Fig S3. Scan rate variation of beta nickel hydroxide (N-2)

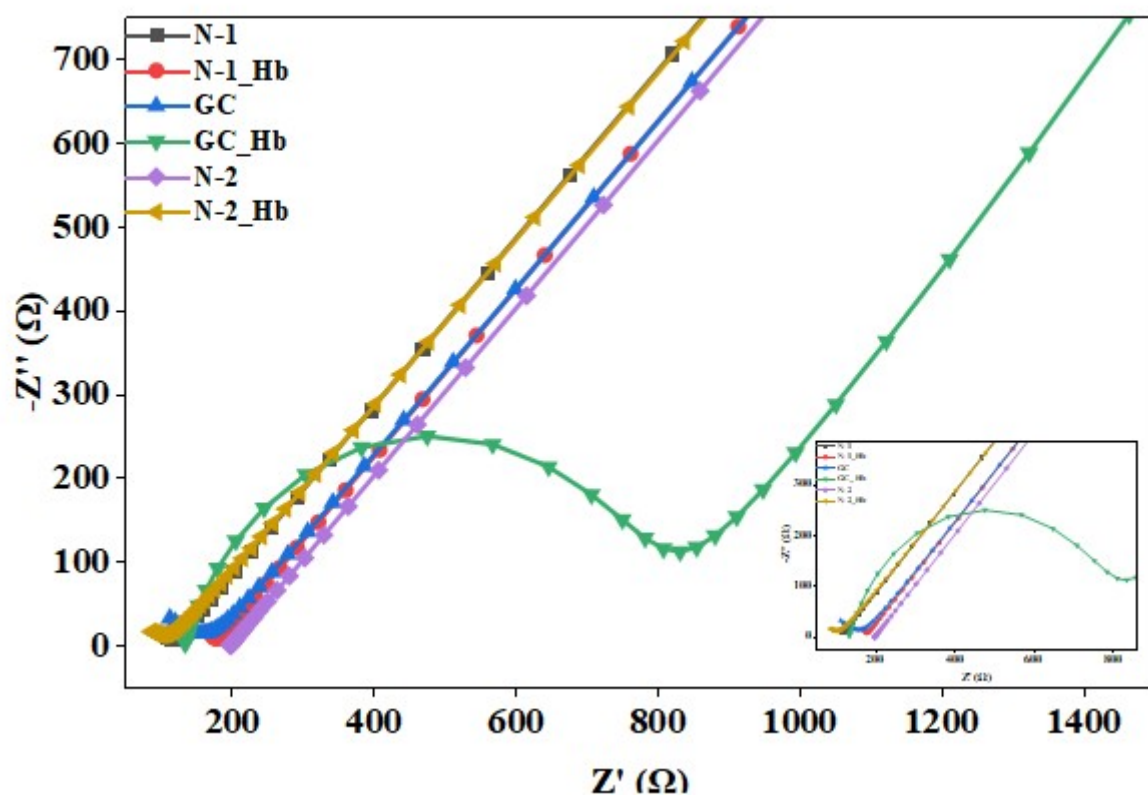


Fig S4. Nyquist plot of assynthesized catalyst

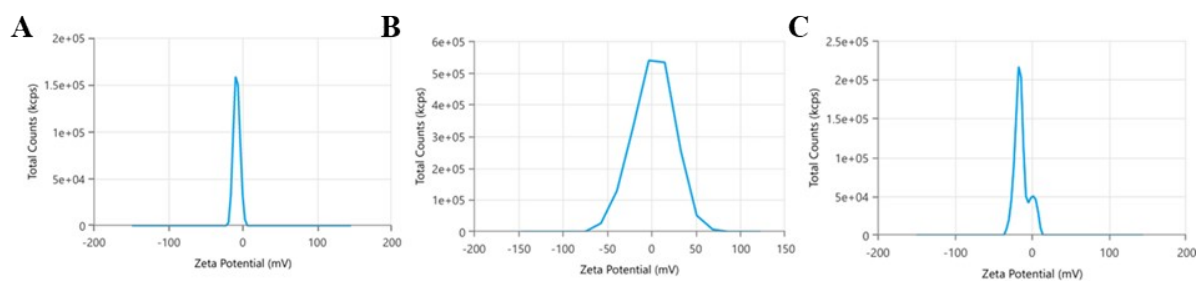


Fig S5 (A) Zeta Potential of alpha nickel hydroxide (N-1); (B) Zeta Potential of beta nickel hydroxide (N-2); (C) Zeta Potential of Haemoglobin

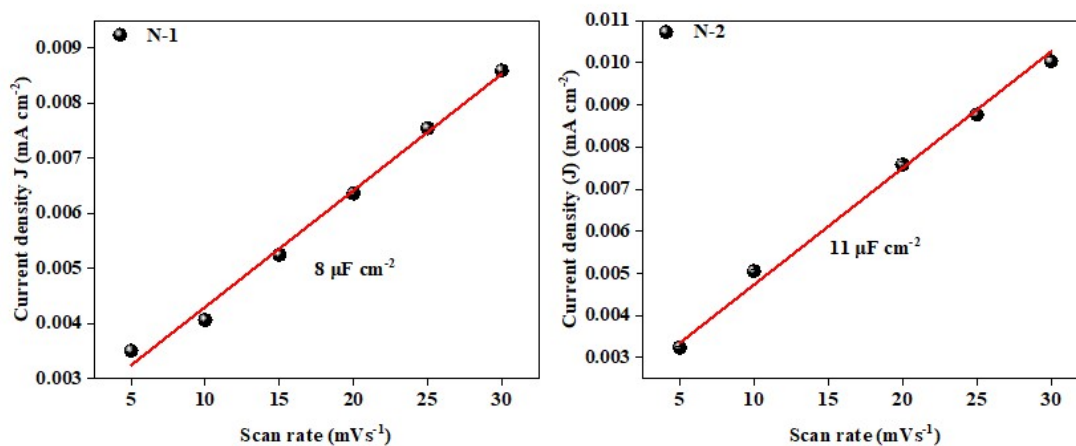


Fig S6 (A) Cdl of alpha nickel hydroxide (N-1); (B) Cdl of beta nickel hydroxide (N-2)

Table S1 Literature comparison of Hb sensing

S. No	Material With Electrode	Method	Linear range (μM)	Detection limit (nM)	Ref
1.	Ni (OH) <sub>2</sub> /GCE	DPV	0.01 to 0.7	100	Present work
2.	MB-MWNTs	CV and FIA	5 to 2	1.5	52
3.	NAC capped CdHgSe QDs	Fluorometry	4 to 0.44	2.0	53
4.	Au-EQCM/C/Fe@CNps	Voltammetric detection	-	0.0007	54
5.	TBO/pTBA@MWCNT	Cyclic voltammetry	0.1 to 10	0.082	55
6.	Fc-ECG/AuNPs/SPE	Difference Pulse Voltammetry	0.1 to 1000	30	56
7.	CS/MGCE	Difference Pulse Voltammetry	0.05 to 50	10	57
8.	ZGC-PLNP	PL Spectra	1 to 0.05	0.13	58
9.	TeNWs/GO-GCE	Cyclic voltammetry	-	292	59
10	NiTe/GCE	Cyclic voltammetry	0.9 to 0.00002	0.012	60