Electronic Supplementary Information

Calcination temperature as a probe to tune the non-enzymatic glucose sensing activity of Cu-Ni bimetallic nanocomposites

Mohit Chawla\textsuperscript{a}, Jaspreet Kaur Randhawa\textsuperscript{b*}, Prem Felix Siril\textsuperscript{a*}

\textsuperscript{a}Advanced Materials Research Centre, School of Basic Sciences, Indian Institute of Technology Mandi, Mandi, Himachal Pradesh, India, 175001
\textsuperscript{b}School of Engineering, Indian Institute of Technology Mandi, Mandi, Himachal Pradesh, India, 175001

*prem@iitmandi.ac.in
*jaspreet@iitmandi.ac.in
Fig. S1: Particle size distribution of the synthesized nanostructures (a) monometallic Cu, (b) monometallic Ni and (c) bimetallic Cu-Ni nanocomposite.
Fig. S2: EDS spectrum of the synthesized bimetallic Cu-Ni nanocomposites
Fig. S3: STEM HAADF images and (a) line scan, (b) elemental maps of bimetallic CuNi nanocomposites (Elemental maps scale bar = 2µm).
Fig. S4: XPS spectra of the synthesized nanostructures (a) monometallic Cu (Cu2p scan), (b) monometallic Ni (Ni2p scan), (c) bimetallic Cu-Ni (Cu2p scan) and (d) bimetallic Cu-Ni (Ni2p scan)
Fig. S5: X-ray diffraction patterns of copper oxide nanostructures calcined at different temperatures.
Fig. S6: X-ray diffraction patterns of nickel oxide nanostructures calcined at different temperatures
Fig. S7: X-ray diffraction patterns of bimetallic copper oxide/nickel oxide nanocomposites calcined at different temperatures (CuO planes: indexed in black and NiO planes: indexed in red)
Fig. S8: Particle size distribution of copper oxide nanostructures calcined at different temperatures (a) 400°C, (b) 500°C and (c) 600°C.
Fig. S9: Particle size distribution of nickel oxide nanostructures calcined at different temperatures (a) 400°C, (b) 500°C and (c) 600°C.
Fig. S10: Particle size distribution of bimetallic copper oxide/nickel oxide nanocomposites calcined at different temperatures (a) 400°C, (b) 500°C and (c) 600°C.
Fig. S11: STEM HAADF image (left) and elemental maps (right) of bimetallic CuO/NiO nanocomposites calcined at 600°C (Elemental maps scale bar = 200nm).
Fig. S12: EDS spectra of bimetallic CuO/NiO nanocomposites calcined at (a) 400°C and (b) 500°C
Fig. S13: XPS spectra of the synthesized nanostructures calcined at different temperatures (a) CuO (Cu2p scan), (b) NiO (Ni2p scan), (c) bimetallic CuO/NiO (Cu2p scan) and (d) bimetallic CuO/NiO (Ni2p scan)