Supporting Information

Hierarchical CuO/NiO-Carbon Nanocomposite Derived from Metal Organic Framework on Cello Tape for the Flexible and High Performance Non-enzymatic Electrochemical Glucose Sensors

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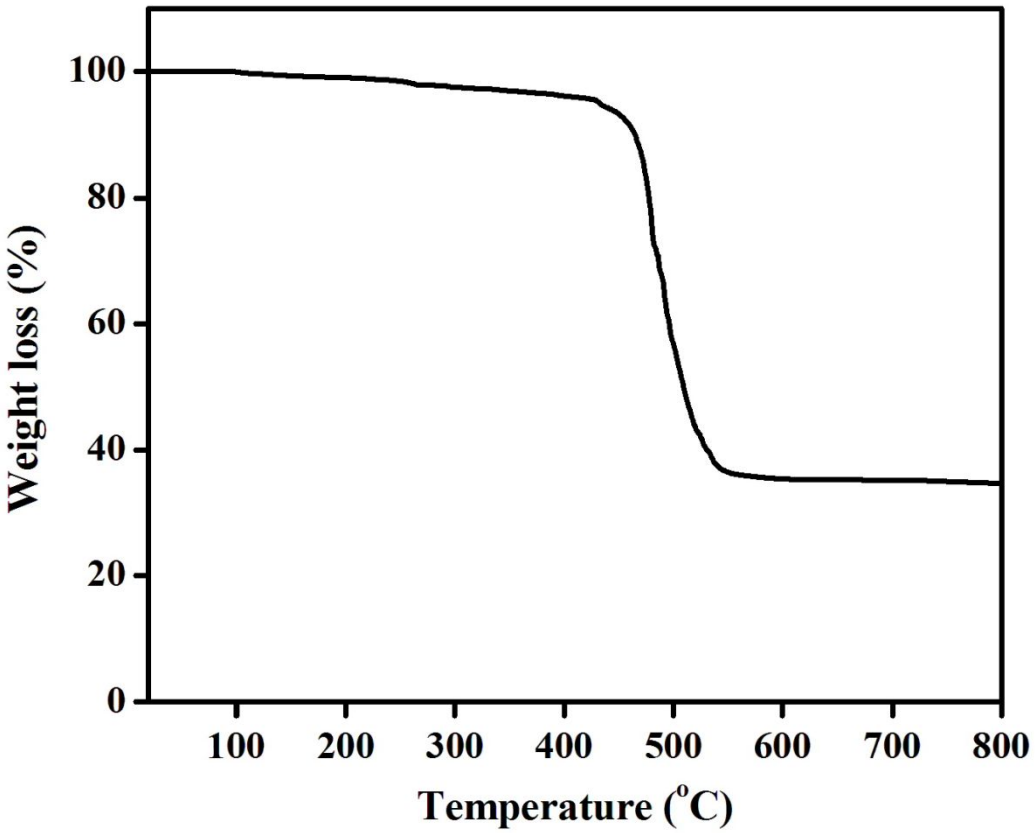

Figure S1 : TGA profile of Cu/Ni-MOF.

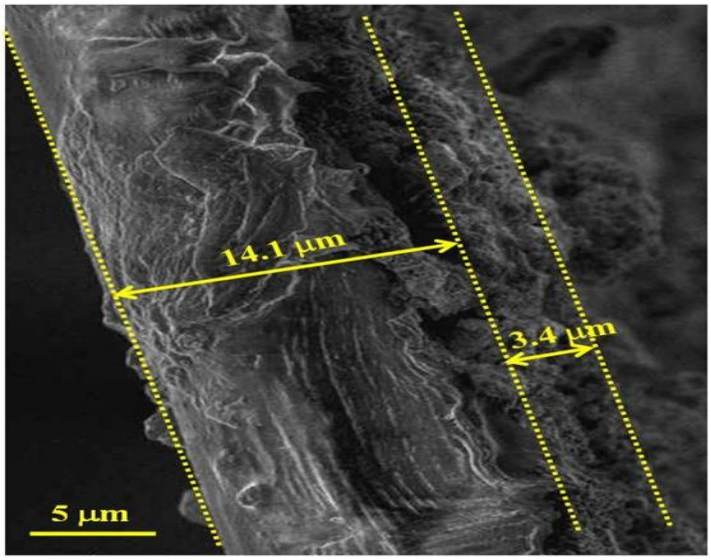

Figure S2. Cross sectional image of the CuO/NiO-C coated on CT.

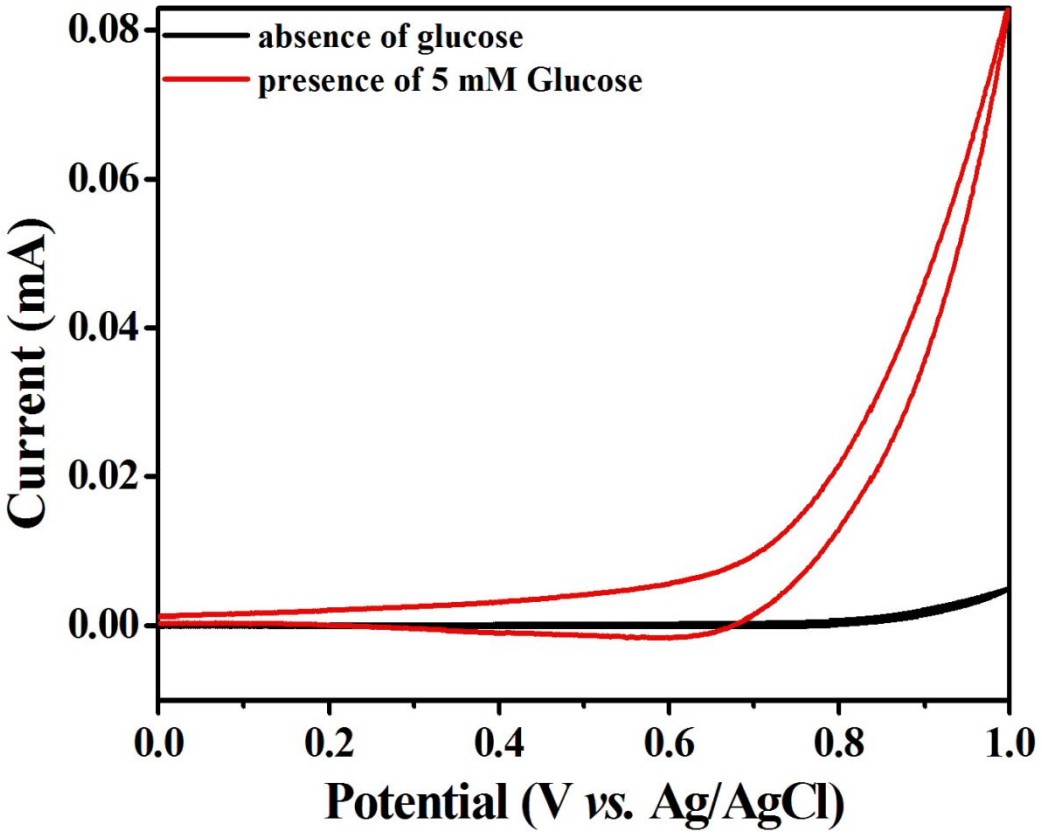

Figure S3. CVs of bare CTs in the absence and presence of 5 mM glucose in 0.1 M NaOH at a scan rate of 100 mV s^{-1}.

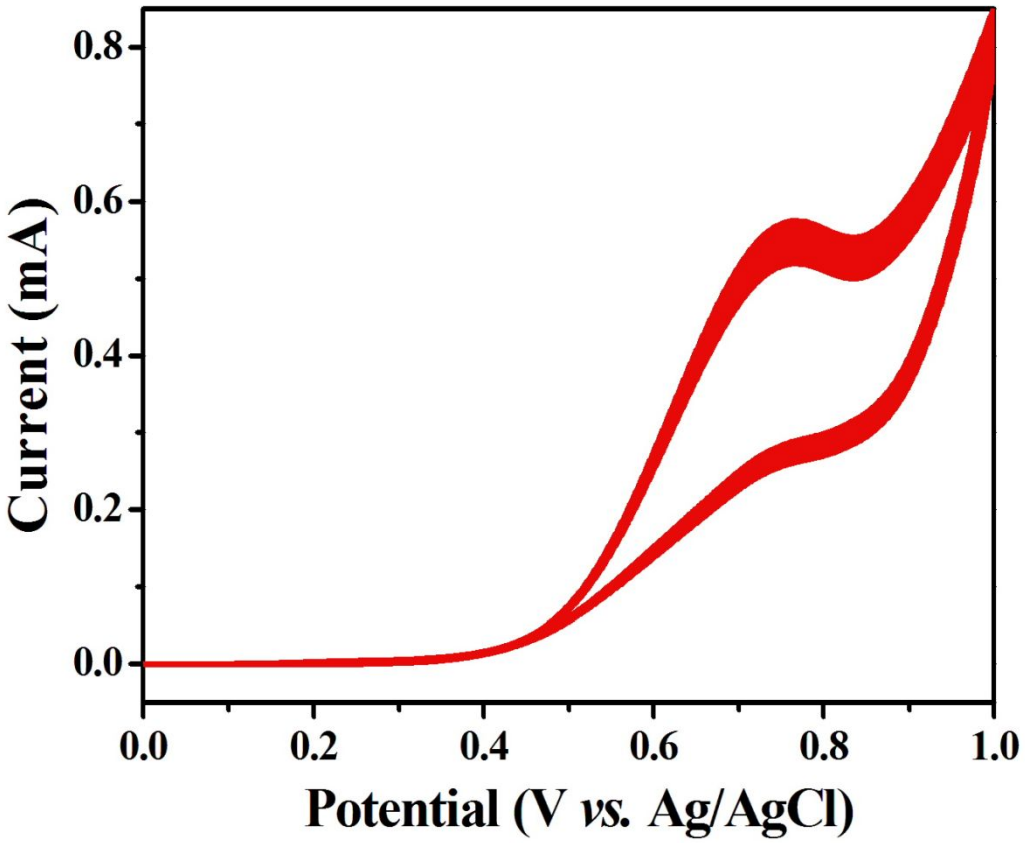

Figure S4. CVs of CuO/NiO-C/CT in the presence of 5 mM glucose in 0.1 M NaOH for 100 cycles at a scan rate of 100 mV s^{-1}.

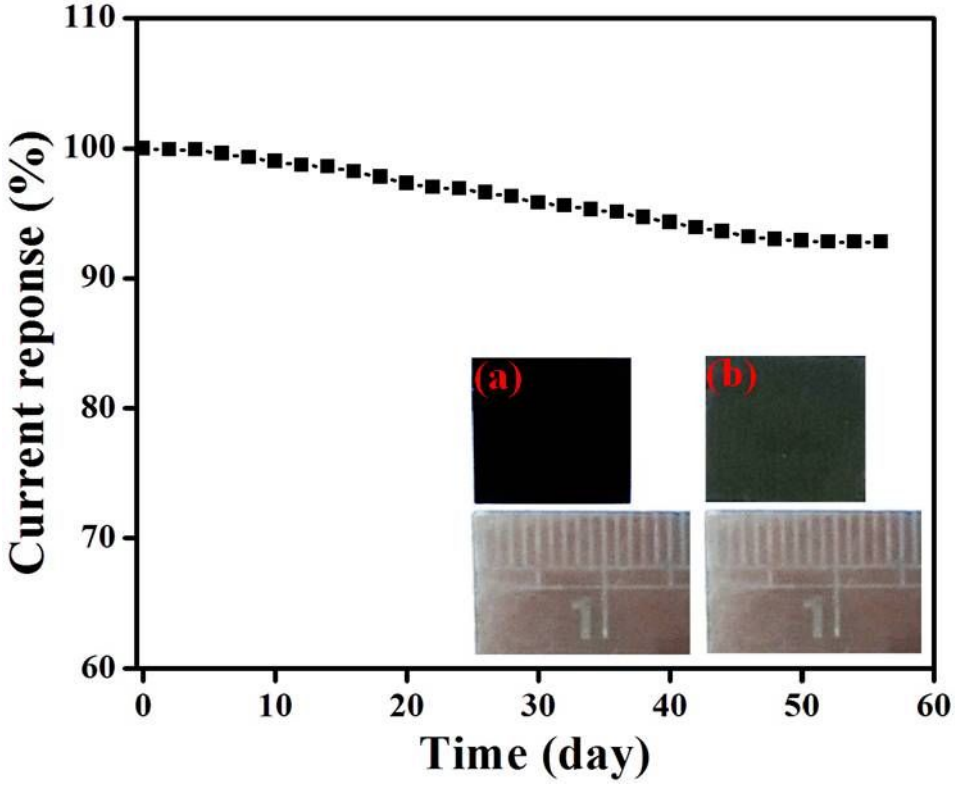

Figure S5. The stability profile of CuO/NiO-C/CT in 5 mM glucose in 0.1 M NaOH solution with the insets showing the digital photographs of (a) virgin and (b) 56 days operated CuO/NiO-C/CT.

Table S1. Comparison of the electrochemical performances of fabricated CuO/NiO-C/CT with the Cu and Ni related non-enzymatic glucose sensors.

Electrode materials	**Linear range (mM)**	**LOD[a] (µM)**	**Sensitivity (µA.mM^{-1} cm^{-2})**	**Reference**
CuO/NiO	0.01-18	8	63.87	1
CuO NW[b]/Cu	0.0004-2.0	0.049	0.49[c]	2
CuO/graphene oxide	0.00255-0.5	0.69	285.38	3
N-doped graphene/Cu-NiO	0.0002-0.3	0.05	7.49	4
Hollow Pt-Ni NT[d]	Upto 13.5	32	124.17	5
NiO/CuO/PANI[e]	0.02-2.5	2.0	-	6
CuO	0.0005-5	0.07	-	7
Ni-MOF/Ni/NiO/C	0.004-5.664	0.8	367.45[f]	8
NiO	Upto 0.4	4.34	478.9	9
Cu-MOF	0.005-2.8	1	-	10
Cu-Ag_2O NWAS[g]	0.2-3.2	10	298.2	11
Ni-ITO[h]	0.02-3.0	3.74	610	12
Ni NPs[i]/graphene	0.005-0.55	1.85	865	13
NiO/TiO_2	0.005-12.1	1	252.0	14
Ni-MoS_2/rGO	0.005-8.2	2.7	256.1	15
CuO/rGO	0.0005-3.75	0.1	52.1	16
N-doped GA[j]-CuO	0.01-6.75	2.7	223.1	17

CuO NF[k]	0.006-2.5	0.8	431.4	18
NiO/graphene	0.005-4.2	5	666.71	19
Cu/MnO_2	0.00025-1.02	0.1	26.96	20
Cu NW	0.0001-2	0.035	430	21
Cu@carbon coaxial NW[b]	0.00005-3	0.05	437	22
Cu NPs/CS[l]	1-6	-	-	23
Cu_2O NCs[m]/graphene	0.3-3.3	3.3	285	24
rGO-$Ni(OH)_2$	0.002-3.1	0.6	11.43	25
$Ni(OH)_2$	0.05-23	6	202	26
MWCNT/NiO	0.2-12	1.60×10^{-4}[n]		27
Ni NPs/CFP[o]	0.002-2.5	1	420.4	28
$NiWO_4$	0.000006-4.1	0.18	269.6	29
$NiCo_2O_4$-Pd	0.005-0.09	0.28	40.03[p]	30
3D porous Ni network	0.0005-4	0.07	2900	31
Anneal-shrinked Cu2O dendrites	0.001-1.4	0.13	5040	32
CuO biscuits/SPCE[q]	0.0005-4.03	0.1	308.71	33
Cu-GNE[r]	0.00565-1.09	0.12	20.6[s]	34
Ni/C	0.024-1.2	7.85	9.11	35
Ni-MoS_2/rGO[t]	0.005-8.2	2.7	256.6	36
NiO/SiC	0.004-7.5	0.32	2037	37
NiCo-MOF NS[u]	0.001-8	0.29	684.4	38
AuNPs[i]/$Ni(OH)_2$ NS[u]	0.002-6.0	0.66	82.71	39
CuO ND[v]	0.002-2.5	0.2	627.3	40

CuO/NiO-CT	**0.0001-4.5**	**0.037**	**586.7**	**Present work**

[a]limit of detection, [b]nanowires, [c]μA.μmol^{-1} dm^{-3}, [d]nanotubes, [e]polyaniline, [f]mA M^{-1} cm^{-2}, [g]nanowalls, [h]indium tin oxide, [i]nanoparticles, [j]graphene aerogel, [k]nanofibers, [l]carbon sphere, [m]nanocubes, [n]mol L^{-1}, [o]carbon fiber paste, [p]μA.μM^{-1} cm^{-2}, [q]screen printed carbon electrode, [r]graphene edge nanoelectrode, [s]μA Mm^{-1}, [t]reduced graphene oxide, [u]nanosheet, [v]nanodisk

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