Supporting Information

Facile synthesis of Nickel oxide thin films from PVP encapsulated Nickel sulfide thin films: An efficient material for electrochemical sensing of glucose, hydrogen peroxide and photodegradation of dye

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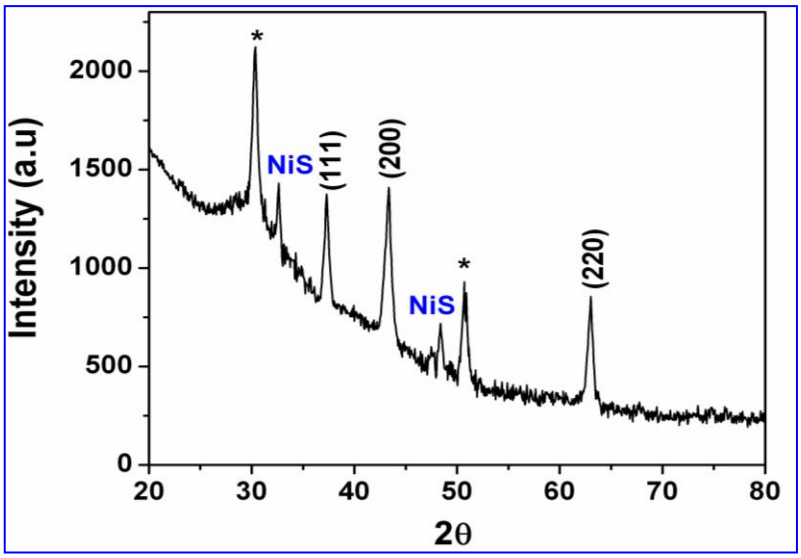
Intensity (a.u)
2θ
NiS
(111)
(200)
NiS
(220)
*
*

Fig. S1

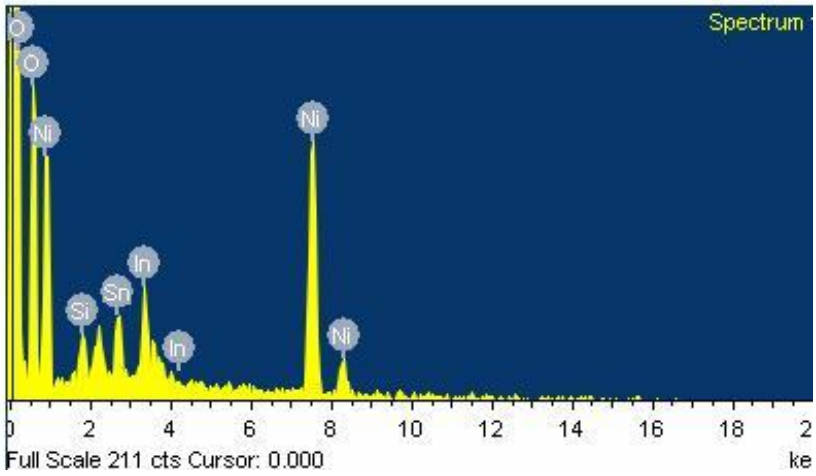
Spectrum
O
O
Ni
Si
Sn
In
In
Ni
Ni
Full Scale 211 cts Cursor: 0.000
ke

Fig. S2

Table S1:

Electrode	Detection limit (µM)	Sensitivity (µA/mM/cm ^{2})	Linear range (µM)	References
Nickel electrode	40	-	100–2500	34
$Ni(OH)_2$/CILE [a]	6	202	50–2300	35
Ni nanowire arrays/GCE	0.1	1043	0.5–7000	36
NiO/CPE[b]	0.3	-	1–1000	37
NiO/OMC/GCE[c]	0.65	834.8	2–1000	38
NiO – MF[d]	0.033	1785.41	-	39
CuO-NiO-MFs	1×10^{-3}	3165.53	3×10^{-6} to 0.51×10^{-3}M	40
NiO/ITO	4.6	1013.76	2×10^{-6} to 2.97×10^{-4} M	This work

[a]Carbon ionic liquid electrode
[b]Carbon paste electrode
[c]Ordered mesoporous carbon
[d]Microfiber

Table S2:

Electrode	Applied potential (V)	Detection limit (μM)	Sensitivity	Linear range	Reference
HRP	-	1.6	12.8 μA mM^{-1}	4 μM to 100 μM	44
AgNPs/ZnONRs/FTO	− 0.55 (vs. Ag/AgCl)	0.9	152.1 μA mM^{-1}	8 μM to 983 μM	45
ZnO/Au/Nafion/HRP/GCE	− 0.3 (vs. Ag/AgCl)	9.0	-	15 μM to 1.1 mM	46
Cu_2S/OMCs/Nafion/GCE	− 0.1 (vs. Ag/AgCl)	0.2	36.8 μA mM^{-1}	1 μM to 3.03 mM	47
Co_3O_4/GCE	− 0.2 (vs. Ag/AgCl)	10	4.84 μA mM^{-1}	0 μM to 5.35 mM	48
FeS/GCE	− 0.4 (vs. Ag/AgCl)	0.092	-	0.5 μM to 150 μ M	49
NiO/ITO	−0.46 (vs. Ag/AgCl)	5.2	82.73 μA mM^{-1}	10 μM–870 μM	This work