

SUPPLEMENTARY MATERIALS

A Novel Organic-Inorganic Hybrid Conducting Copolymer for Mediated Biosensor Applications

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Table S1. Some features of glucose biosensors which prepared using immobilized Fc in the literature.

Electrode	Immobilization matrix	Biological material	Working potential (V)	Linear Range for glucose (mM)	Response time (s)	Km (mM)	LOD (mM)	Reference
GCE	CHIT-Fc	GOx	0.35 V (vs. Ag/AgCl)	2.0-16.0	20	-	0.565	24
GCE	CHIT-Fc	<i>G. oxydans</i>	0.35V (vs. Ag/AgCl)	1.5-25.0	70	-	-	24
Au	AuNP/(FcSH+Cyst)/PAMAM	GOx	0.35 V (vs. Ag/AgCl)	1.0-5.0	-	-	0.6	23
ITO	P(Py-FcPy)	GOx	0.175 V (vs. Ag/AgCl)	2.8-16.8	25	1.6	-	40
GCE	Py/Py-CO ₂ H/Py-Fc	GOx	0.38 V (vs. Ag/AgCl)	1.0-4.0	2	4.73	-	27
Au	MWCNTs/Chi-BSA-Fc	GOx	0.175 V (vs. Ag/AgCl)	0.01-30.0	150	1.5	0.01	44
GE	P(TPFc-co-TPA)	GOx	0.45 (vs. Ag/AgCl)	0.75-75.0	12	20.23	0.03	This work

GCE: Glassy carbon electrodes; **CHIT-Fc:** Chitosan-ferrocene; **Au:** Gold electrode; **AuNP/(FcSH+Cyst)/PAMAM:** Gold nanoparticles/6-(Ferrocenyl) hexanethiol/cysteamine/polyamidoamine dendrimer; **GE:** Graphite electrode; **SNS-NH₂/SNS-NH₂Fc:** 4-(2,5-di (thiophen-2-yl)-1H-pyrrol-1-yl)amido ferrocenyldithiophosphonate_{co.4} -(2,5-di (thiophen-2-yl)-1H-pyrrol-1 yl) aniline; **ITO:** Indium thin oxide; **P(Py-FcPy):** Copolymer of pyrrole and ferrocenecarboxylate modified pyrrole; **Py/Py-CO₂H/Py-Fc:** Pyrrol/N-(3-(1H-pyrrol-1-yl)ethyl)ferrocenecarboxate; **MWCNTs/Chi-BSA-Fc:** Chitosan-bovine serum albumin (Chi-BSA) cryogel with incorporated multiwalled carbon nanotubes (MWCNTs), ferrocene (Fc).