

Supporting information

Table S1. Various modes of vibrations extracted from the FT-IR spectra of MWCNT, BIM-H, (BIM-Cu²⁺)_n and MWCNT/(BIM-Cu²⁺)_n

MWCNT	BIM-H	(BIM-Cu ²⁺) _n	MWCNT/(BIM-Cu ²⁺) _n	Peak assignment
3126	3117	3128	3133	C-H stretching
1642			1637	-C=C- stretching
1392			1399	-C-H bending
	3350-2400			N-H stretching
	1774			N-H bending
	1609	1609		Imidazole (IM) in-plane N-H bending
	1466	1468		Ring stretching
	1407	1399		Ring stretching
	1238	1238		C-N stretching
	1248			N-H in plane bending
	1129	1211	1129	BIM in-plane C-H bending
	998			BIM in-plane ring bending
	954			IM C-H in-plane bending
	886			IM in-plane ring bending
	742	747		BIM C-H out-of-plane bending
		300.6	295.6	Cu ²⁺ -N stretching and g
		323.1	306.8	N-Cu ²⁺ -N bending

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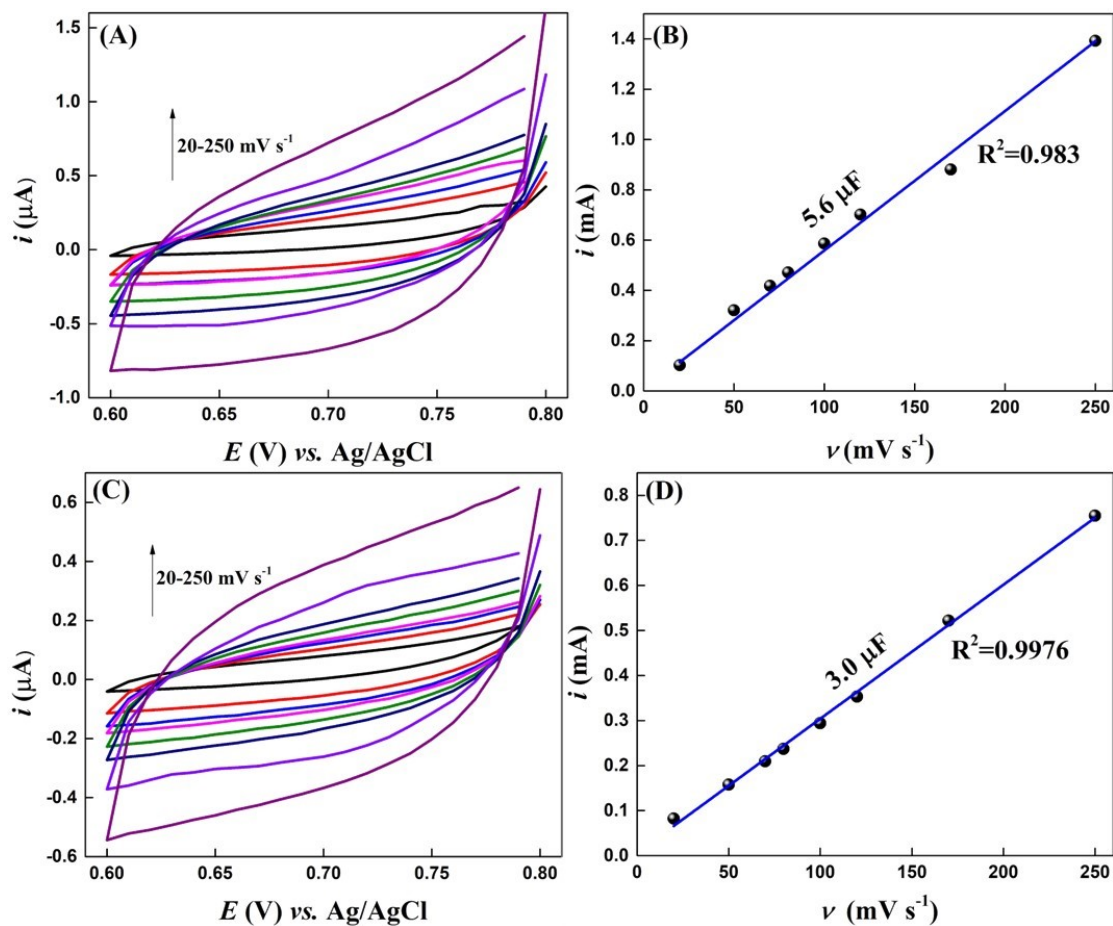


Fig. S1 (A and C) MWCNT/(BIM-Cu²⁺)_n and MWCNT cyclic voltammetry analysis at various scan rates (20-250 mV s⁻¹) (B and D) capacitive current densities as a function of scan rate

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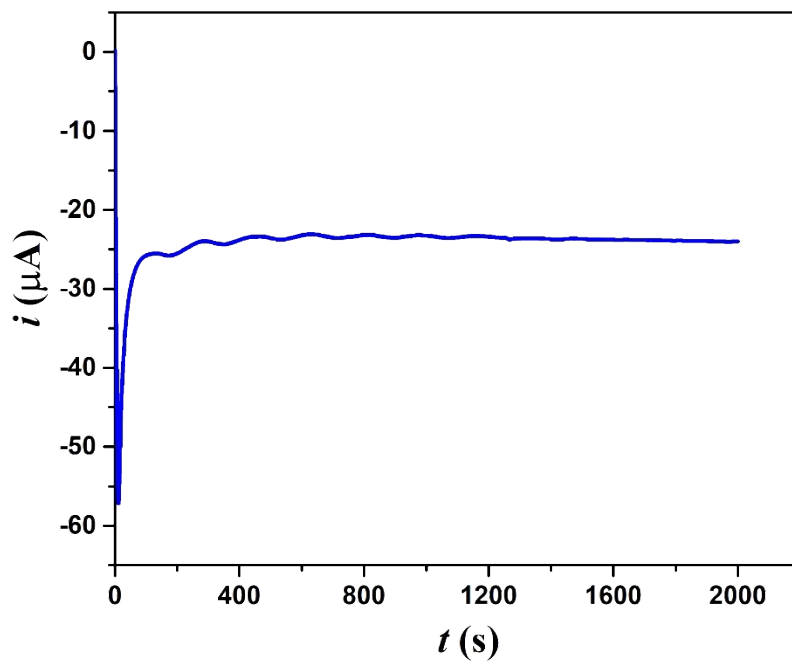


Fig. S2 Chronoamperometry of MWCNT/(BIM-Cu²⁺)_n@GCE in 5 mM H₂O₂ containing PBS at -0.2 V for 2000 s