

Supplementary Information

Article

A Novel Electrochemiluminescent Biosensor Based on Nitrogen-Doped Graphyne for Ultrasensitive Kanamycin Residues Detection in Milk and Honey Sample

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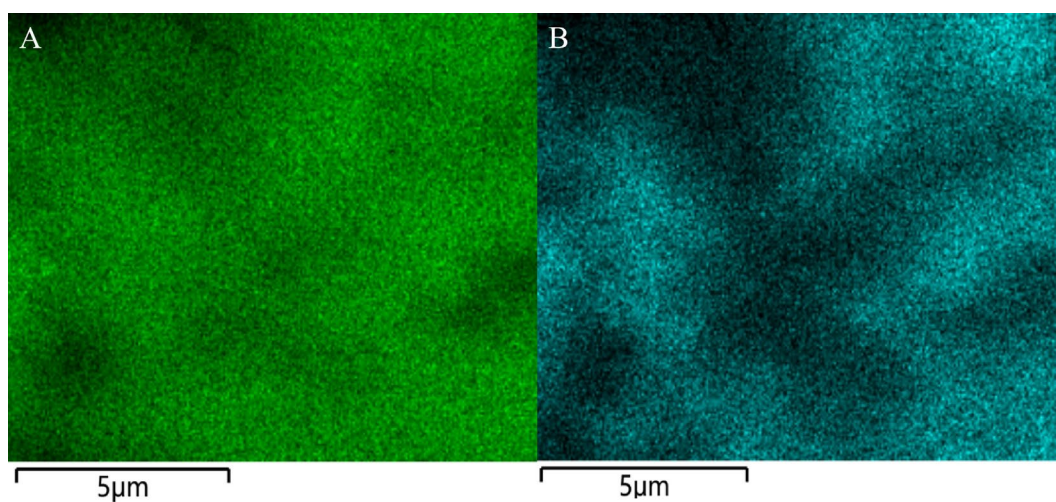


Fig. S1. The corresponding EDS elemental mapping images of Si and O (A, B).

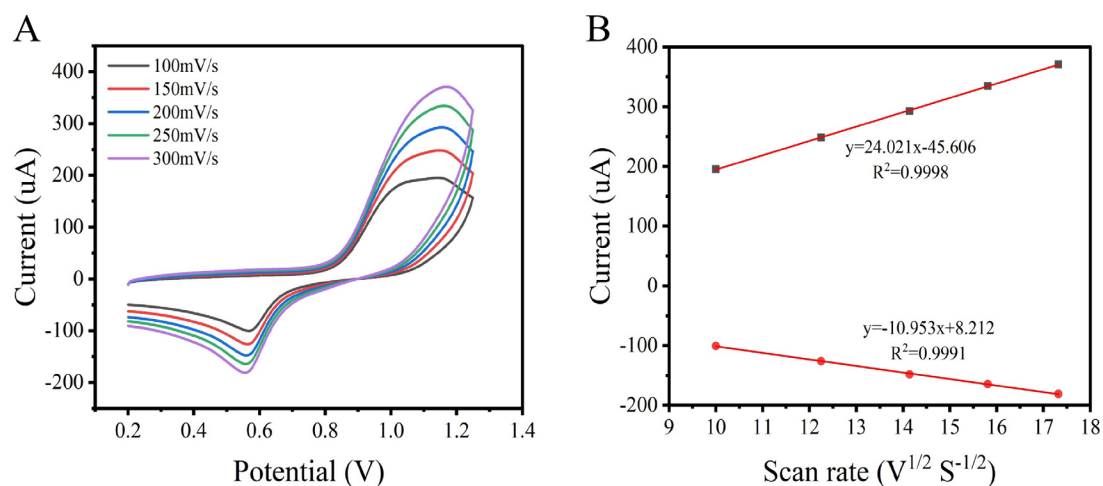


Fig. S2. (A) CV curves of KAN/mSiO₂@Nafion@Ru(bpy)₃²⁺-Apt DNA/BSA/cDNA/Au/1N-GY/GCE at different scan rates (100-300 mV s⁻¹); (B) A linear relationship between the square root of the scan rate and the current density.

able S1. Comparison with other detection methods of KAN.

Methods	Linear range	Detection limit	References
FRET	1.0 nM – 80.0 nM	0.29 nM	[1]
colorimetric	0.01 nM – 500 nM	9 pM	[2]
Photoelectrochemical	0.1 nM – 500 nM	0.02 nM	[3]
photoelectrochemical	0.2 nM – 450 nM	0.05 nM	[4]
Fluorescence	100 nM – 1.1 μ M	22.6 nM	[5]
Electrochemiluminescence	1.0 pM – 1.0 μ M	1.08 pM	This work

References

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