

Supplementary Information

for:

**Graphene oxide nanoribbons in chitosan for simultaneous
electrochemical detection of
guanine, adenine, thymine and cytosine**

By;

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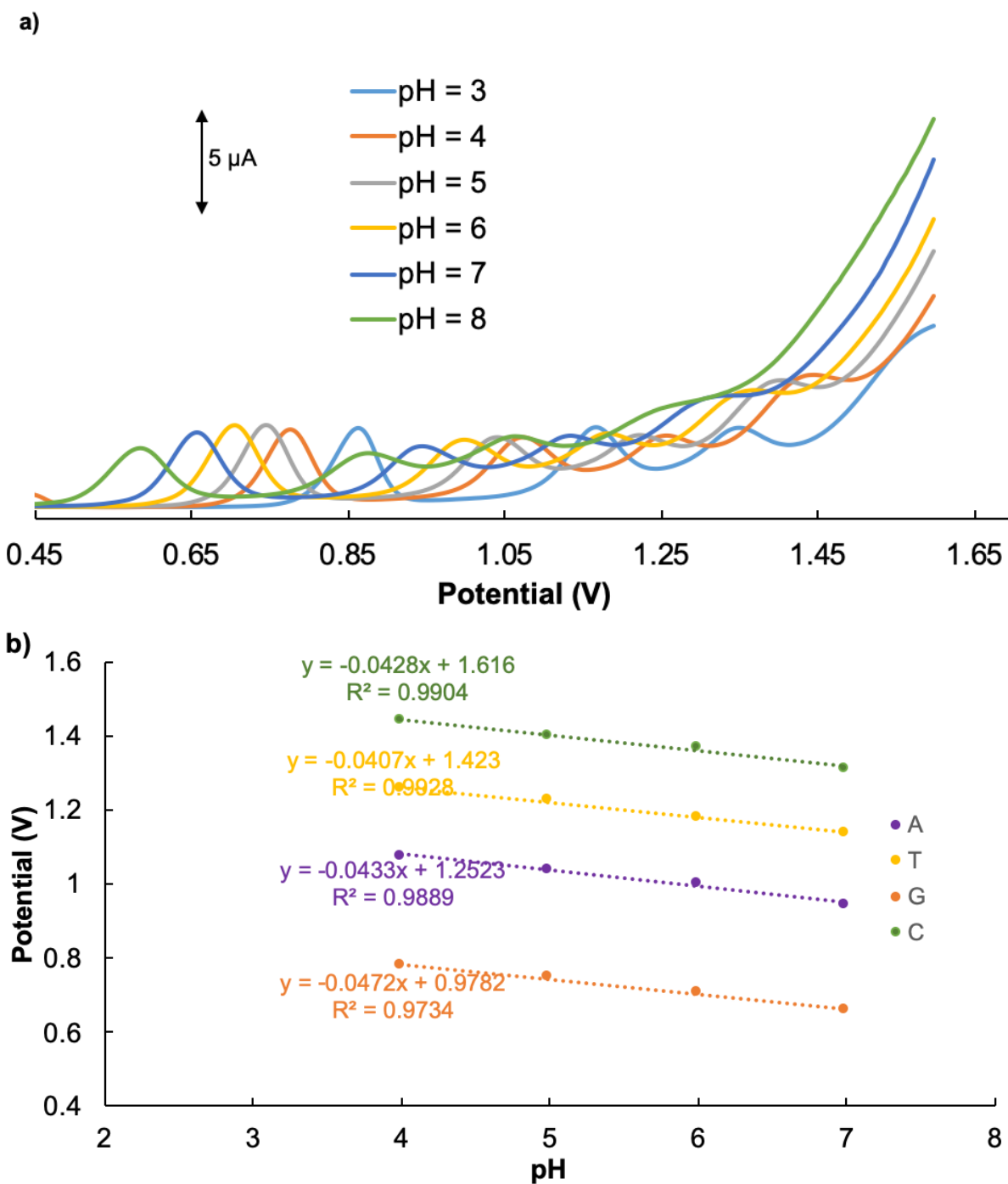


Figure S1. (a) Differential pulse voltammograms of GCE/GONRs-CH surfaces in 0.1 M PBS at pH 3.0 (purple line), 4.0 (red line), 5.0 (black line), 6.0 (yellow line), 7.0 (blue line) and 8.0 (green line) with the presence of G (70 μ M), A (70 μ M), T (290 μ M) and C (290 μ M). (b) The dependence of peak potentials of four nucleobases on pH.

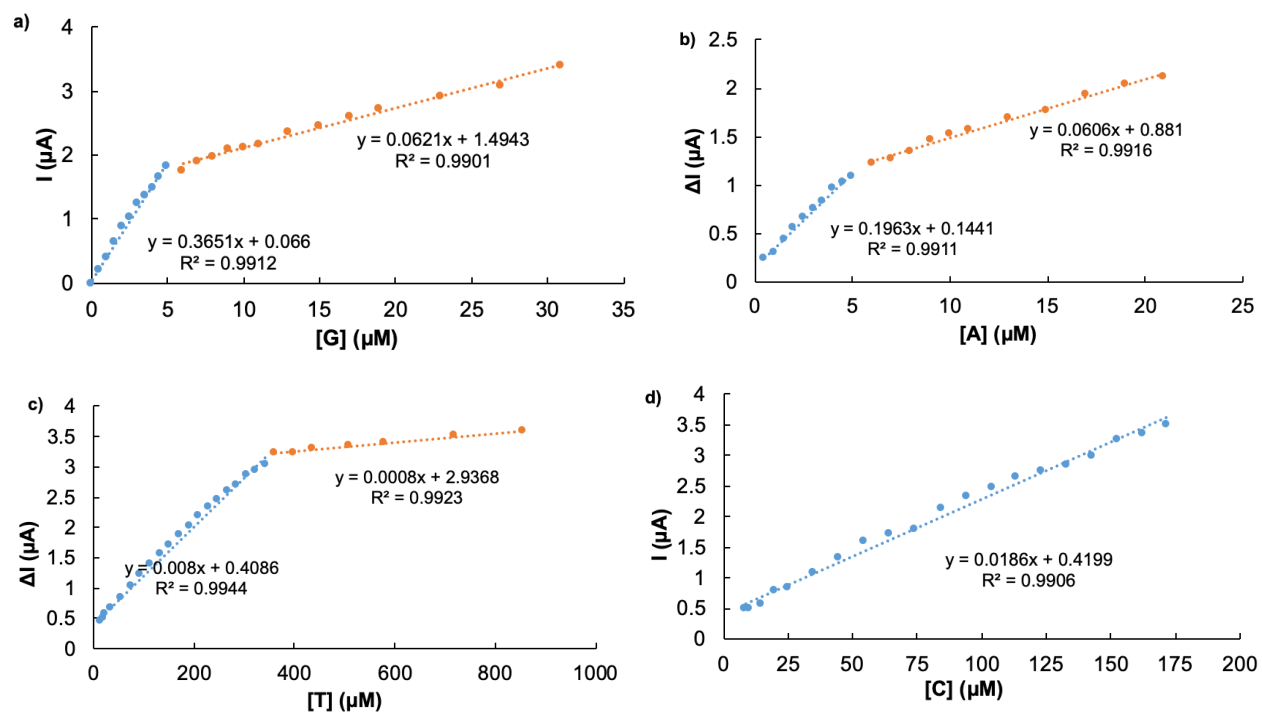


Figure S2. The calibration plots of G (a, 0.05-256 μM), A (b, 0.05-172 μM), T (c, 5-855 μM) and C (d, 2.5-342 μM) with the concentration plotted against the anodic peak current.

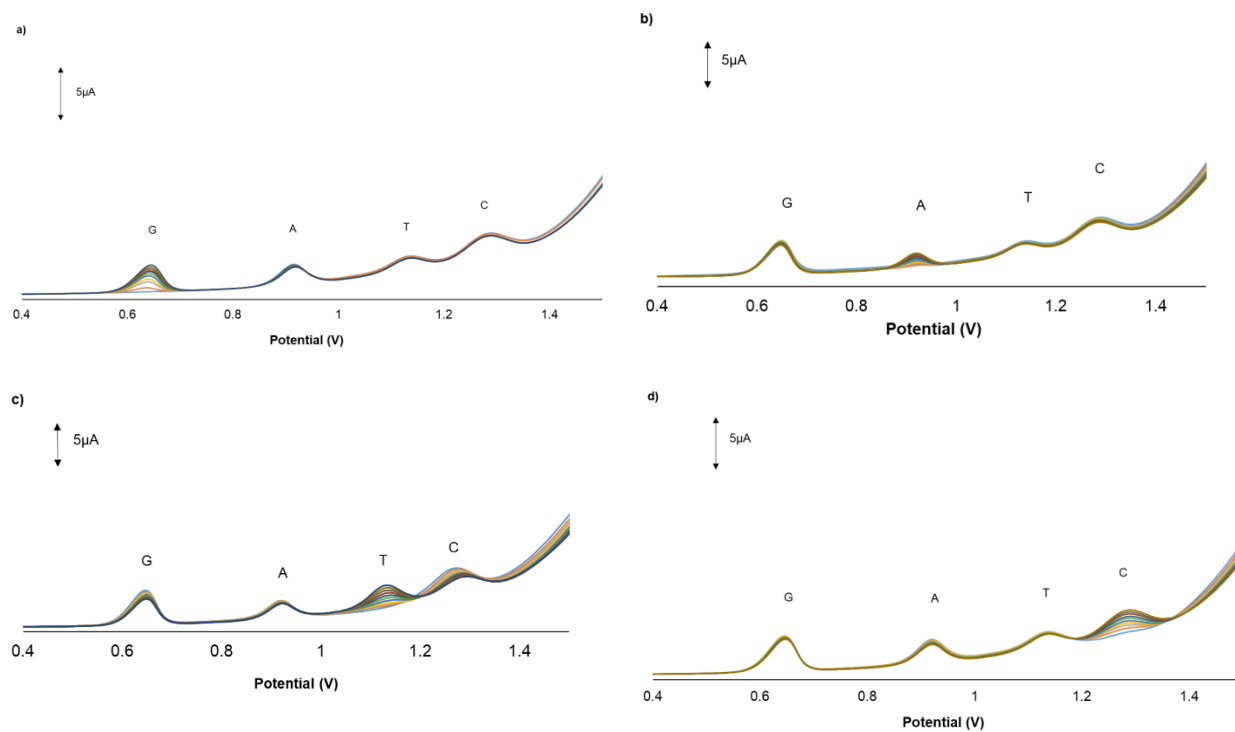


Figure S3. Interference studies of four analytes **(a)** G (0.5-1 μM) A (20 μM), T (80 μM .) and C (75 μM); **(b)** A (2-20 μM) G (20 μM), T (80 μM) and C (75 μM); **(c)** T (20-500 μM) G (20 μM), A (20 μM) and C (75 μM); **(d)** C (20-300 μM), G (20 μM), A (20 μM) and T (80 μM), using GCE/GONRs-CH surfaces in 0.1 M PBS (pH 7.0).

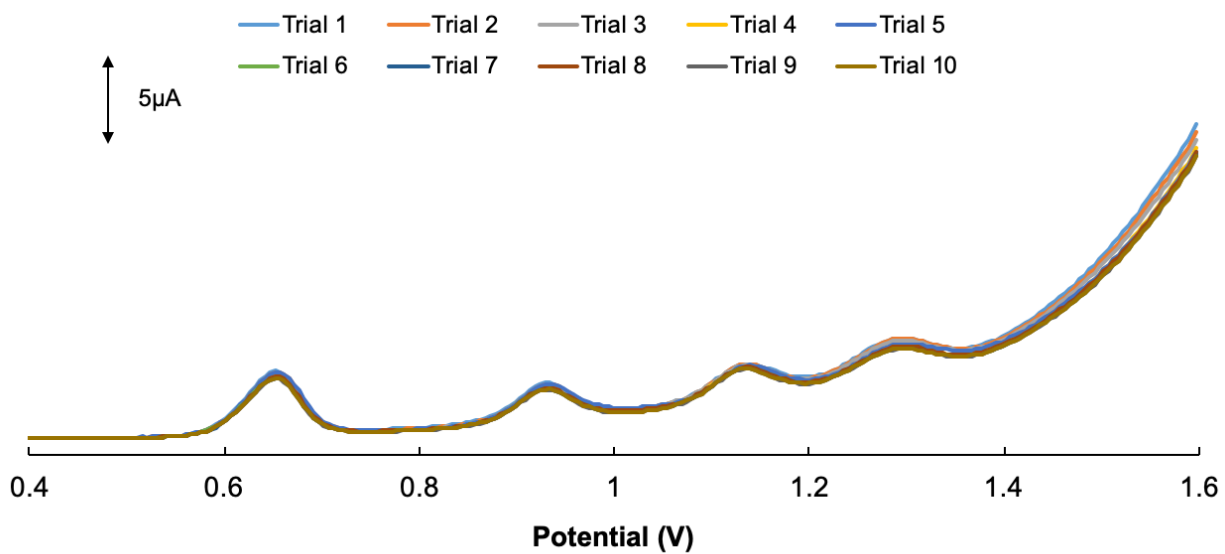


Figure S4. DPVs of 10 consecutive runs on the GCE/GONRs-CH in the presence of 10 μM G, 10 μM A, 80 μM T and 80 μM C in 0.1 M PBS (pH 7.0).

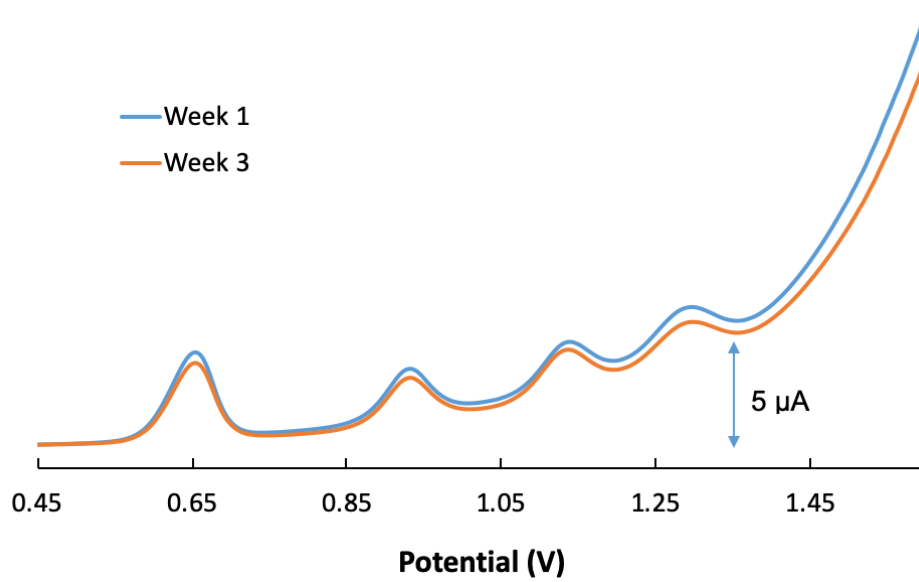


Figure S5. DPVs of GCE/GONRs-CH in the presence of 50 μM G, 50 μM A, 100 μM T and 100 μM C at week 1 (blue) and week 3 (orange) in 0.1 M PBS (pH 7.0).

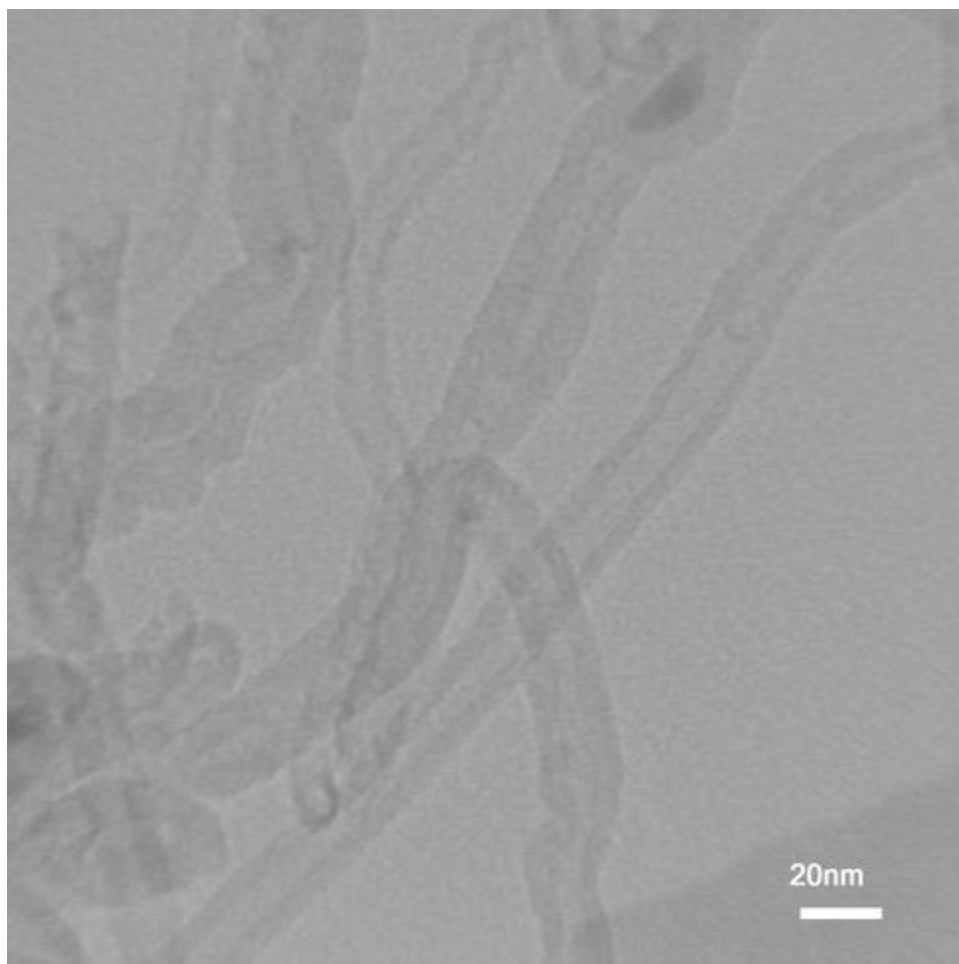


Figure S6. HRTEM image of MWCNTs with the scale bar of 20 nm.