

Non-enzymatic detection of bilirubin based on Graphene – polystyrene sulfonate composite

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Supporting Information

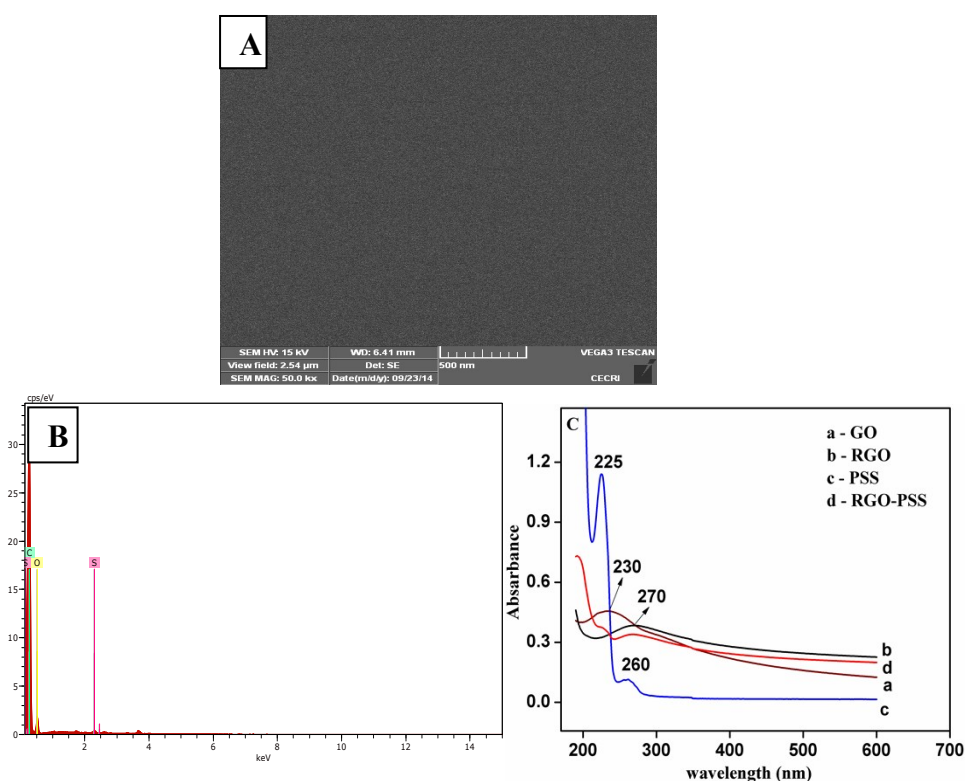


Fig.S1. (A) SEM image of GC electrode surface before modification; (B) EDAS spectrum of RGO-PSS composite modified electrode. (C) UV-Vis spectrum of GO, RGO, RGO-PSS composite material.

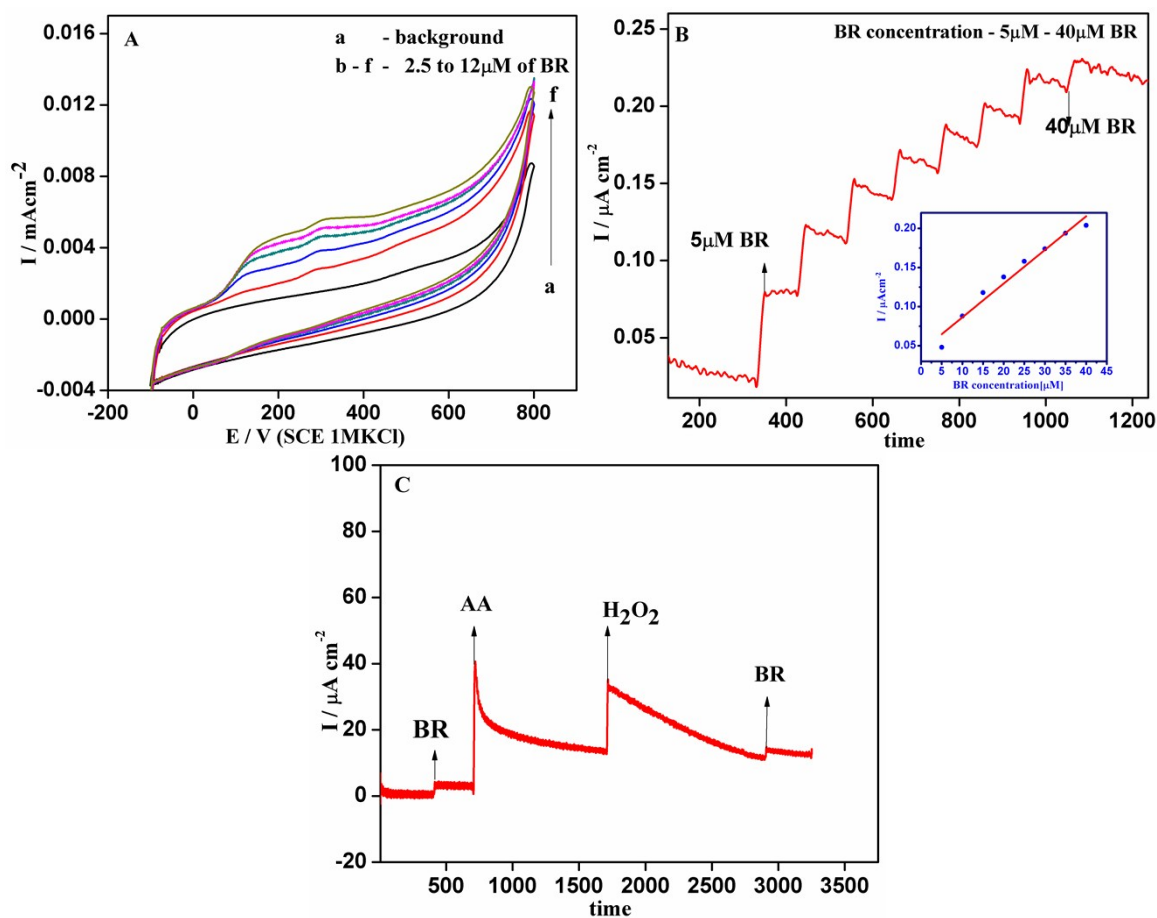


Fig.S2. (A) CVs recorded for the BR (2.5 - 12 μM) response using bare GC electrode in Tris-HCl buffer pH8.5. (B) Chronoamperometry was recorded for the BR detection using bare GC electrode at 340mV vs NCE. (C) Interference study of related bio-compounds on BR sensor by Chronoamperometry using bare GC electrode at 340mV vs NCE.

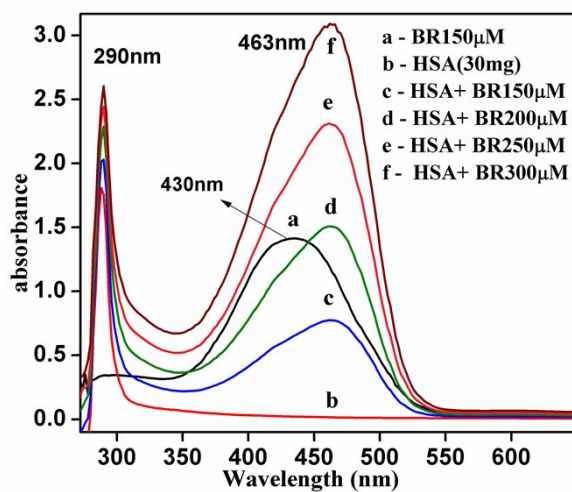


Fig. S3. UV-Vis. Spectrum of complex formation of BR and HSA (30mg/ml).

Table 1: Bilirubin concentration in the serum sample was compared with the results from a commercial bilirubin-monitoring analyzer which adopts Jendrassik-Grof method.

Sample	BR detected by commercial method (μM)	BR detected by proposed method (μM)	Recovery (%)
1	0.54	0.53	98.1
2	0.85	0.83	97.6
3	1.12	1.13	100.1