

Ni/NiO/Ni-B/Graphene Heterostructure-Modified Electrodes and Their Electrochemical Activities Towards Acetaminophen

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S1. TGA profile of Ni/NiO/GNPs

The amount of Ni and Ni-based species anchored on graphene surface was determined using TGA analysis by exposing the sample to oxygen-rich atmosphere with increasing temperature (Figure S1). The weight percent of the Ni-species was found to be 42.1.

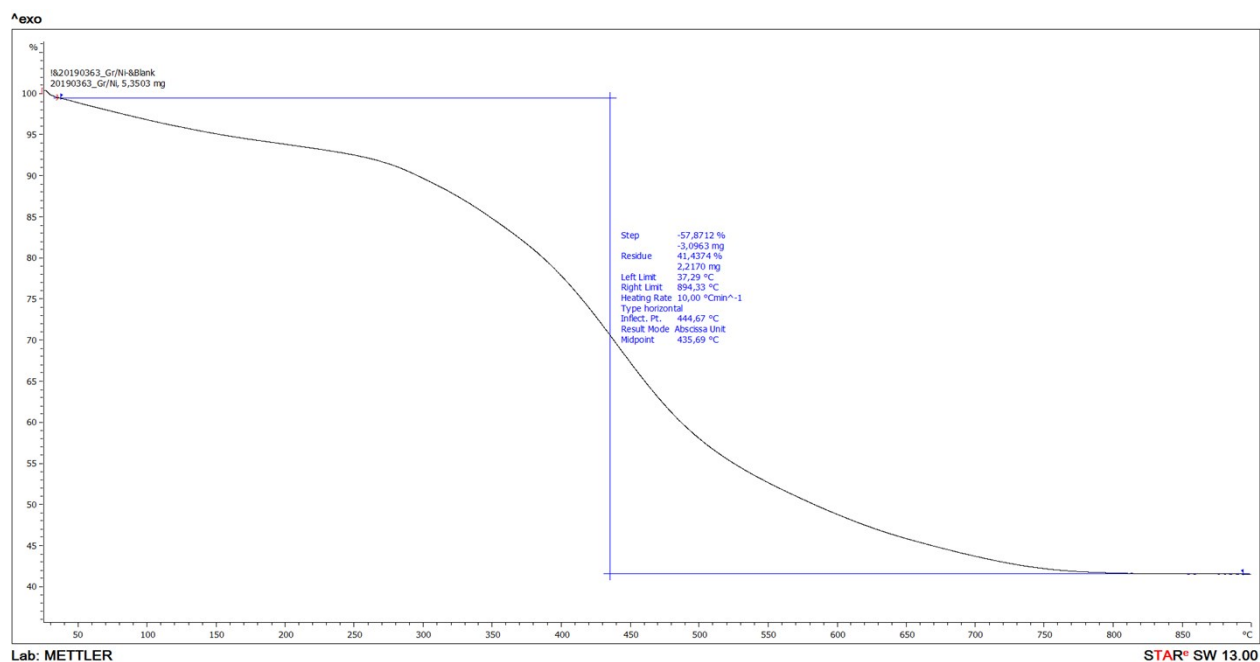


Figure S1. TGA profile of Ni/NiO/GNPs.

S2. CV results obtained in 10 mM PBS: (a) GCE, (b) Graphene/GCE, (c) Ni/NiO/Ni-B/Gr-GCE.

Fig. S2 displays electrochemical behavior of bare, graphene and Ni/NiO/Ni-B/Gr-modified GC electrodes absence and presence of APAP. The highest current response was seen at Ni/NiO/Ni-B/Gr-modified GC electrode. The increase in current at Ni/NiO/Ni-B/Gr-modified GC electrode is 31.25% greater than the Graphene-GCE in the presence of 200 μM APAP.

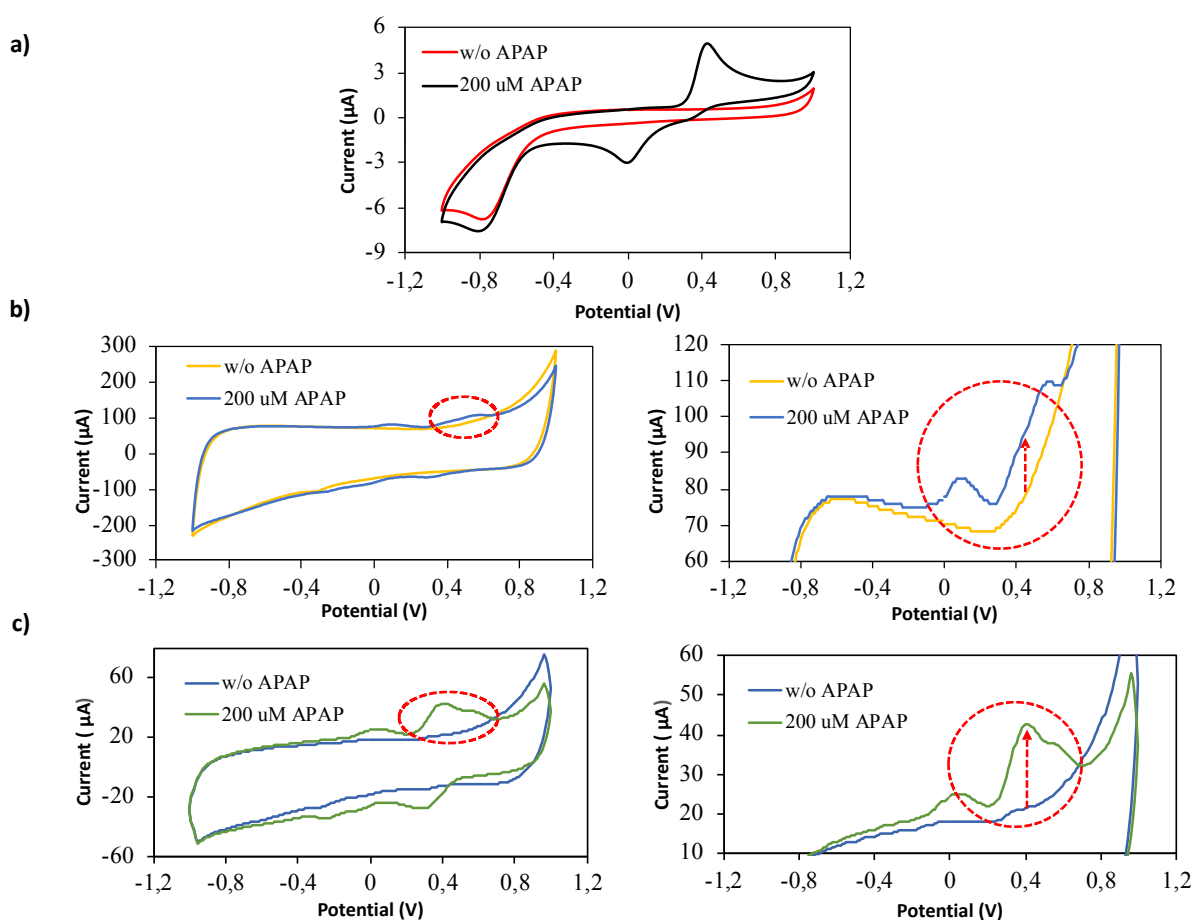


Figure S2. CV results obtained in 0.01 M PBS: (a) GCE, (b) Graphene/GCE, (c) Ni/NiO/Ni-B/Gr-GCE