

## Supporting Information

### Electrochemical sensor based on fullerene nanorods for detection of paraben an endocrine disruptor

Jahangir Ahmad Rather\*<sup>a</sup>, Abir Jumaa Al Harthi <sup>a</sup>, Emad A. Khudaish<sup>a</sup>, Ahsanulhaq Qurashi<sup>b</sup>,  
Abdul Munam<sup>a</sup>, Palanisamy Kannan<sup>c</sup>

<sup>a</sup> Department of Chemistry, Sultan Qaboos University, Box 36, Al-Khod 123, Oman

<sup>b</sup> Center of Research Excellence in Nanotechnology and Department of Chemistry, King Fahd  
University of Petroleum & Minerals Dhahran 31261, Saudi Arabia

<sup>c</sup> Singapore Center for Environmental Life Science Engineering (SCELSE), Nanyang  
Technological University, Singapore-637551

Corresponding author

Dr. Jahangir Ahmad Rather (*Member of RSC*)

Department of Chemistry

Sultan Qaboos University,

Oman.

Email: [Jahangir@squ.edu.om](mailto:Jahangir@squ.edu.om)

Tel: +968-24141491

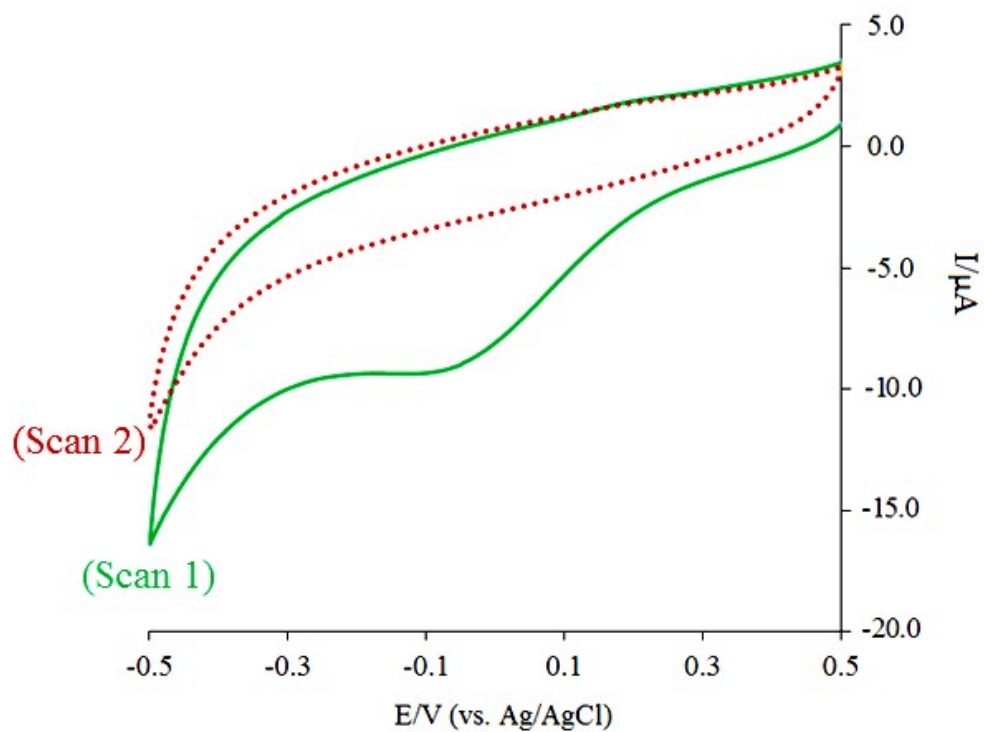


Figure S1: Electrochemical reduction of nitrophenyl diazonium salt ( $\text{Cl}^-\text{N}_2^+-\text{Ph}-\text{NO}_2$ ) at GCE (scan rate  $100 \text{ mVs}^{-1}$ ). The reduction peak observed at  $-0.07 \text{ V}$  corresponds to electrochemical reduction of nitrophenyl diazonium salt.

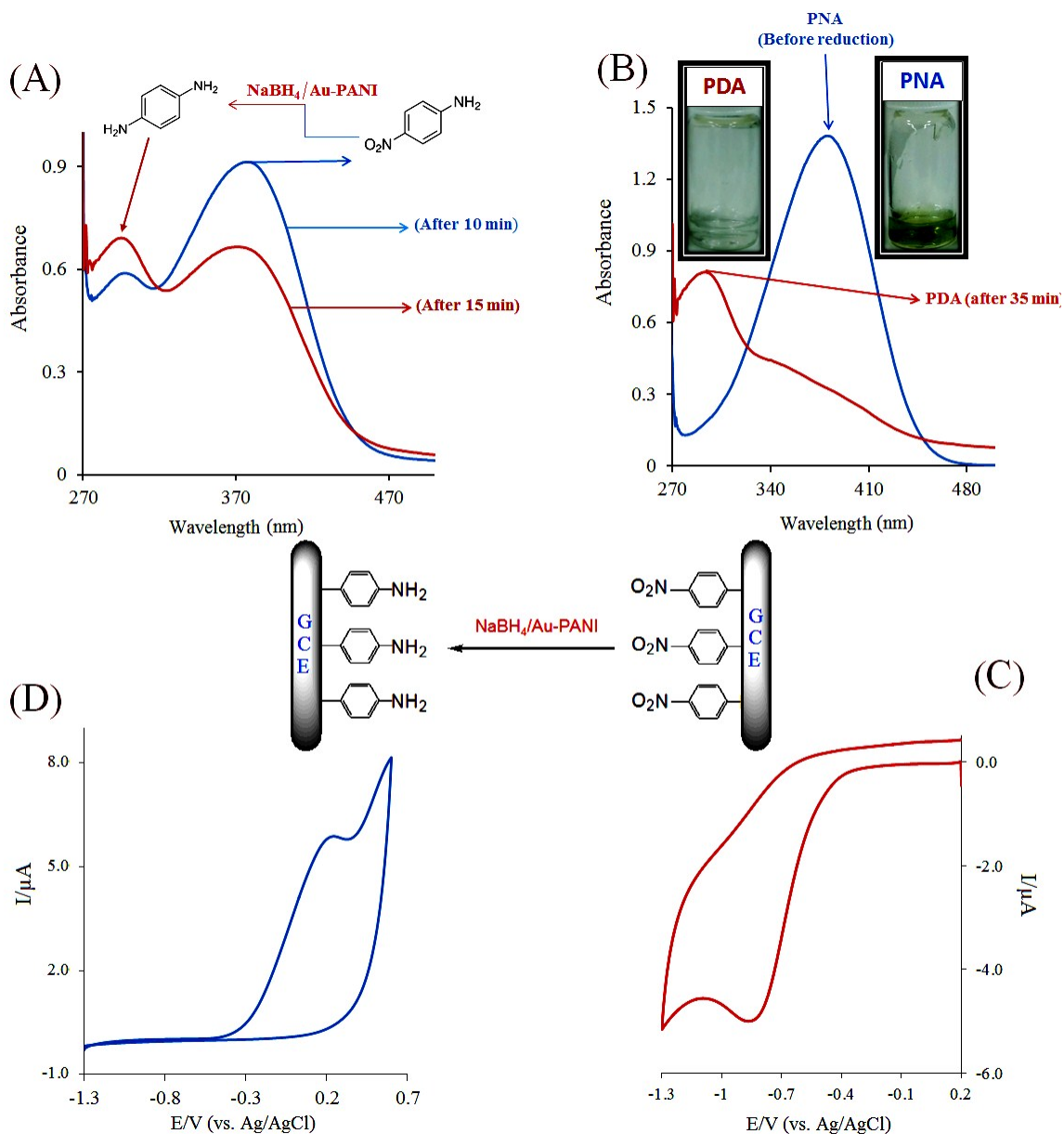


Figure S2: UV-vis spectrum of *p*-nitroaniline (PNA) reduction to *p*-phenylenediamine (PDA) after addition of  $\text{NaBH}_4/\text{Au-PANI}$  system observed before (A) and after (B) reduction process. Cyclic voltammograms (CV) are confirming the presence of nitrophenyl group at  $\text{GCE-Ph-NO}_2$  (C) and phenylamine group formed at  $\text{GCE-Ph-NH}_2$  (D) after reduction with  $\text{NaBH}_4/\text{Au-PANI}$  system.

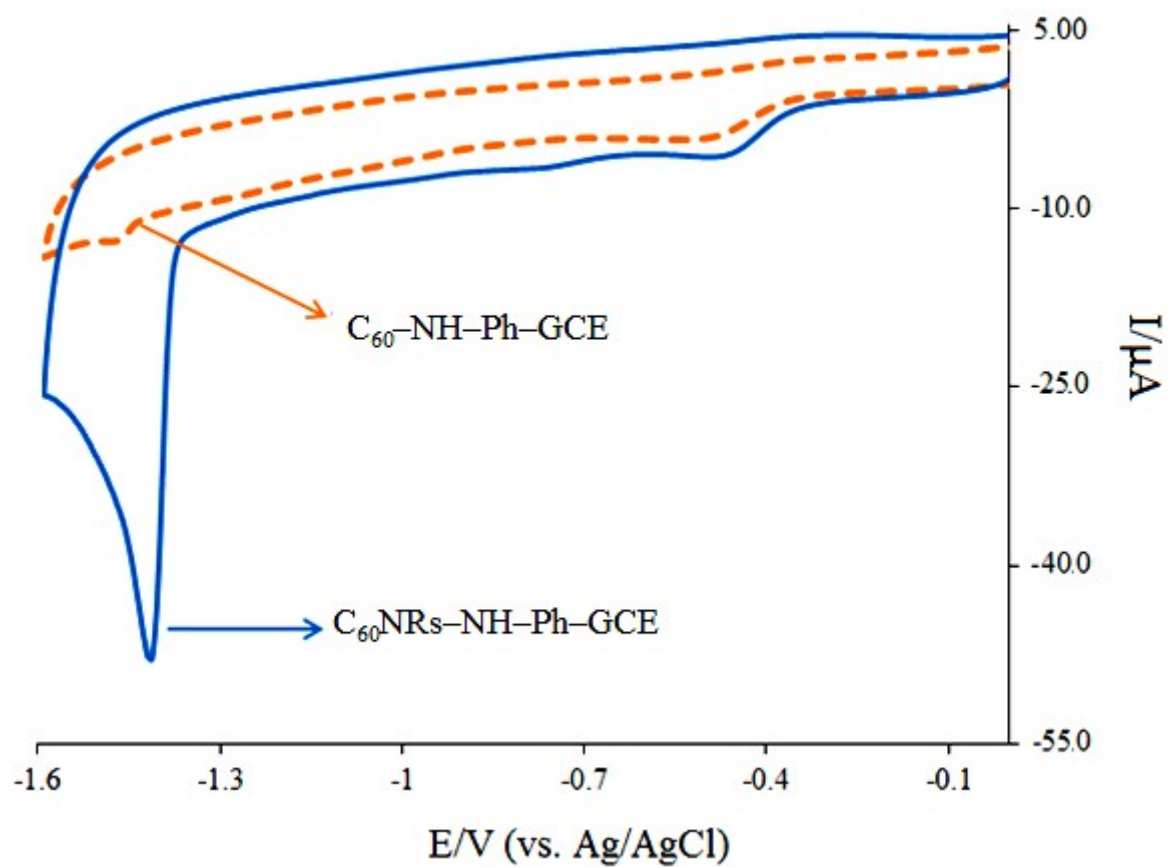


Figure S3: Electrochemical reduction (ER) of  $C_{60}$ -NRs-NH-Ph-GCE and  $C_{60}$ -NH-Ph-GCE in 1.0 M KOH at a scan rate of  $10 \text{ mVs}^{-1}$ .