

Supplementary material for the article:

Ognjanović, M.; Stanković, D. M.; Fabián, M.; Vukadinović, A.; Prijović, Ž.; Dojčinović, B.; Antić, B. A Voltammetric Sensor Based on MgFe₂O₄ Decorated on Reduced Graphene Oxide-Modified Electrode for Sensitive and Simultaneous Determination of Catechol and Hydroquinone. *Electroanalysis* **2018**, *30* (11), 2620–2627.
<https://doi.org/10.1002/elan.201800357>

Supplementary material

A voltammetric sensor based on MgFe_2O_4 decorated on reduced graphene oxide-modified electrode for sensitive and simultaneous determination of catechol and hydroquinone

Miloš Ognjanović,^{a*} Dalibor M. Stanković,^{ab} Martin Fabián,^{ac} Aleksandar Vukadinović,^a Željko Prijović,^a Biljana Dojčinović,^d and Bratislav Antić^a

^a The Vinca Institute of Nuclear Sciences, University of Belgrade, Mike Petrovića Alasa 12-14, 11001 Belgrade, Serbia

^b Innovation Center of the Faculty of Chemistry, University of Belgrade, Studentski Trg 12-16, Belgrade 11000, Serbia

^c Institute of Geotechnic, Slovak Academy of Sciences, Watsonova 45, Košice, Slovakia

^d Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Studentski Trg 12-16, 11000 Belgrade, Serbia

* e-mail: miloso@vin.bg.ac.rs

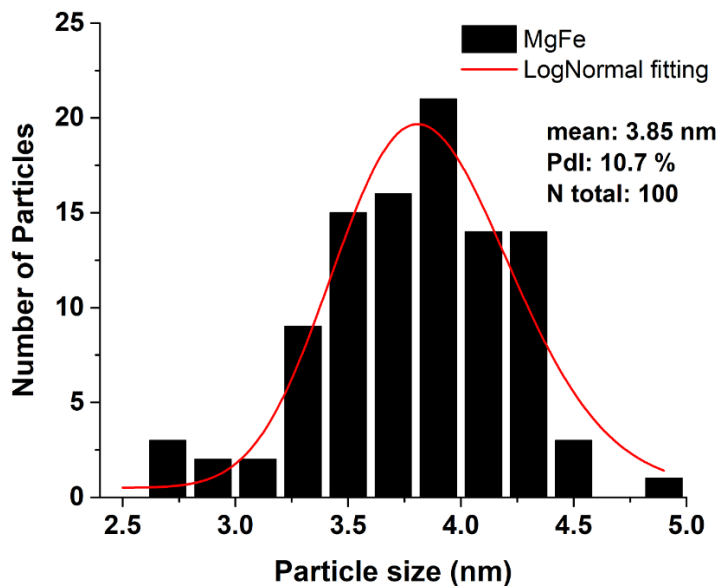


Fig. S1 Log-normal distribution function from fitting the TEM particle size data.

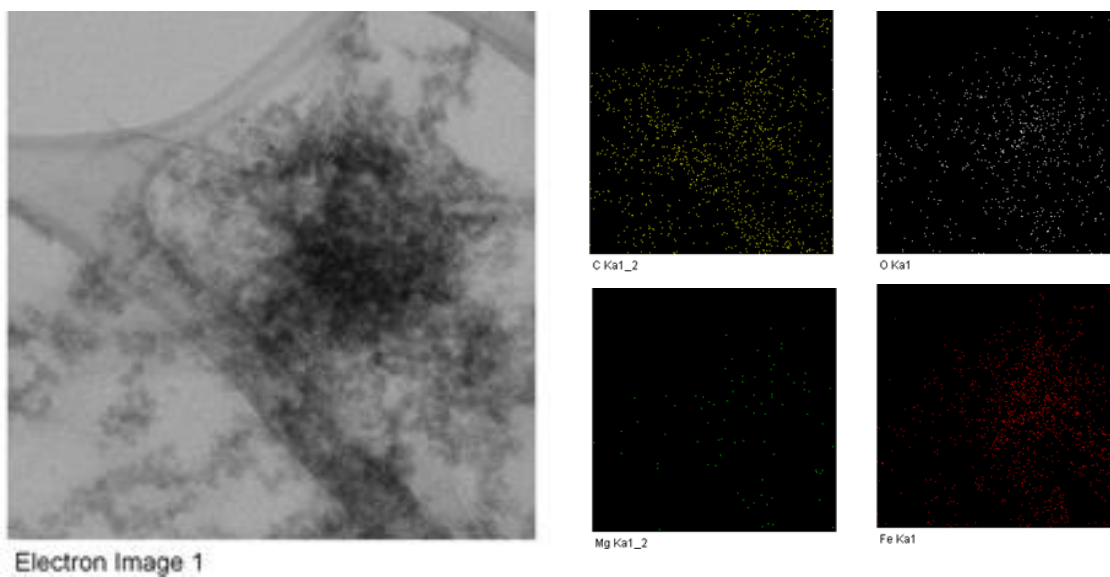
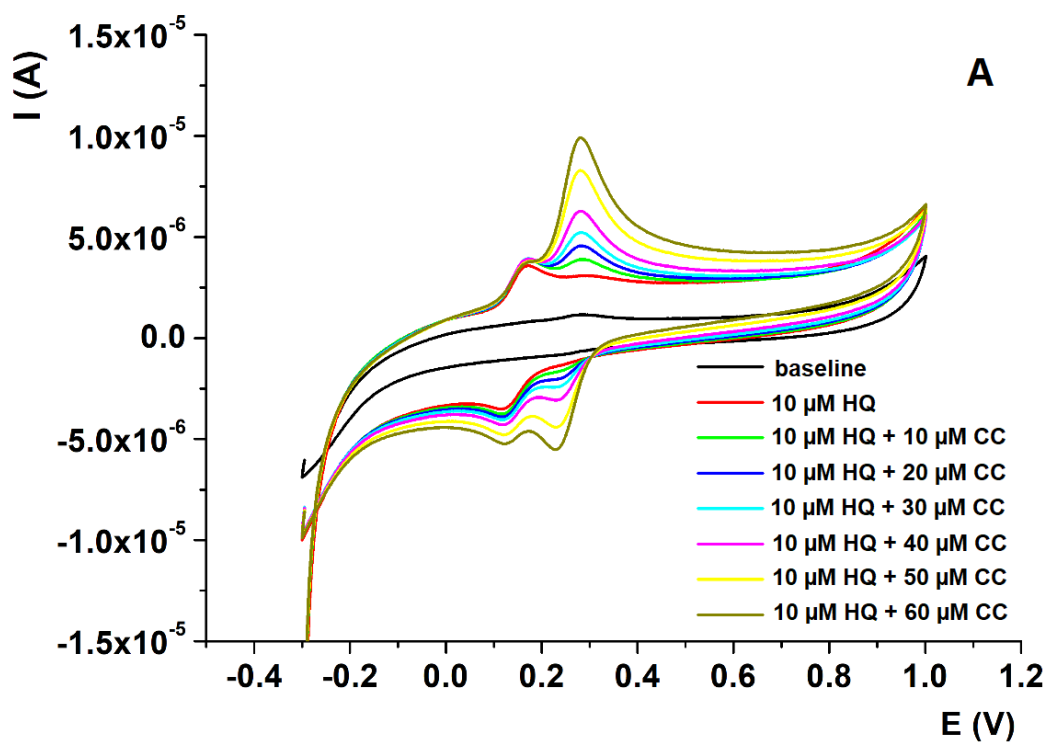


Fig. S2 EDS mapping for MgFe@RGO composite.



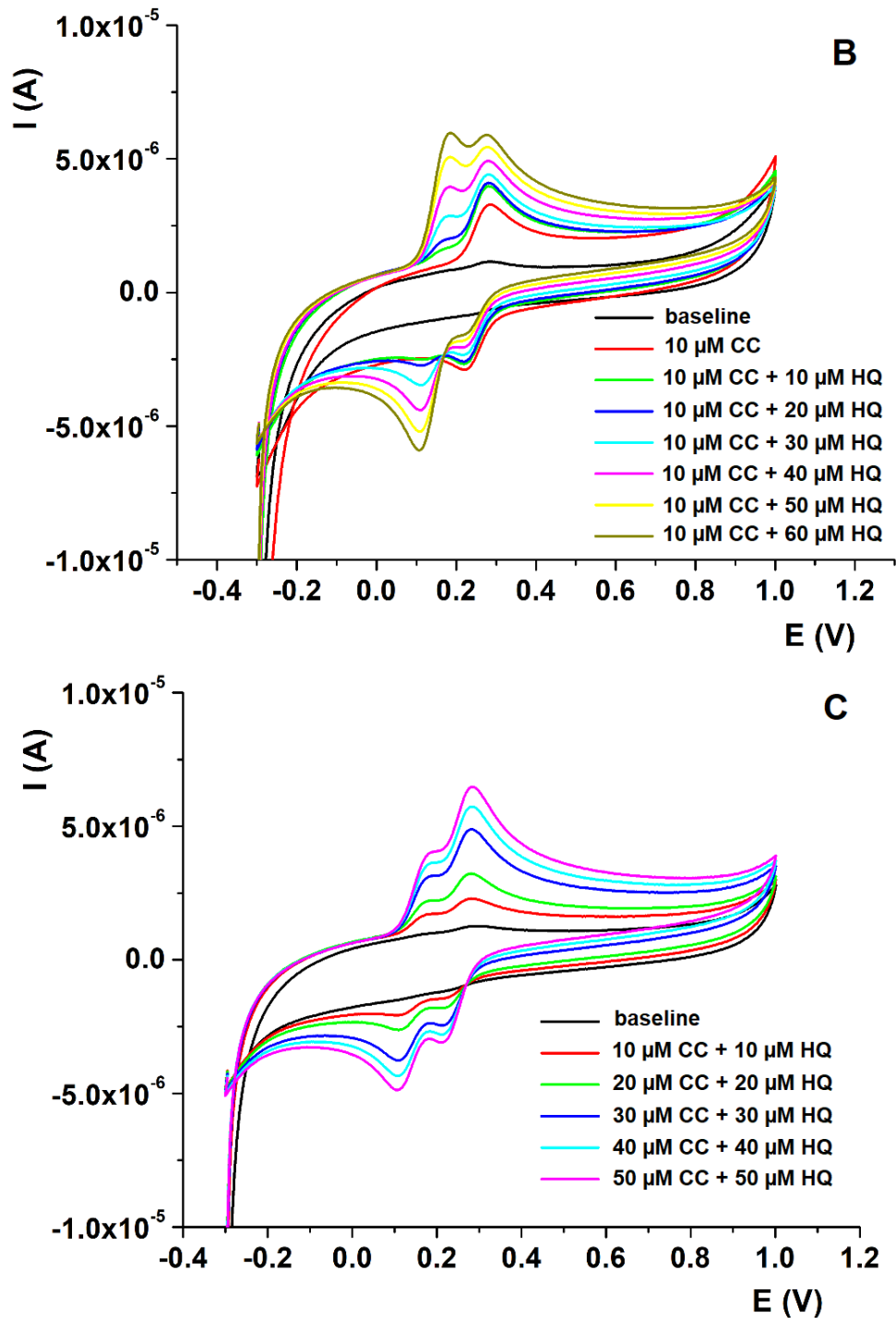


Fig. S3 CV voltammograms of: (A) different CC concentration in presence of constant HQ concentration in solution; (B) different HQ concentration in presence of constant CC concentration in solution; (C) different CC and HQ concentrations. Supporting electrolyte Ac-buffer, scan rate 100 mV/s. working electrode MgFe@RGO composite modified electrode.

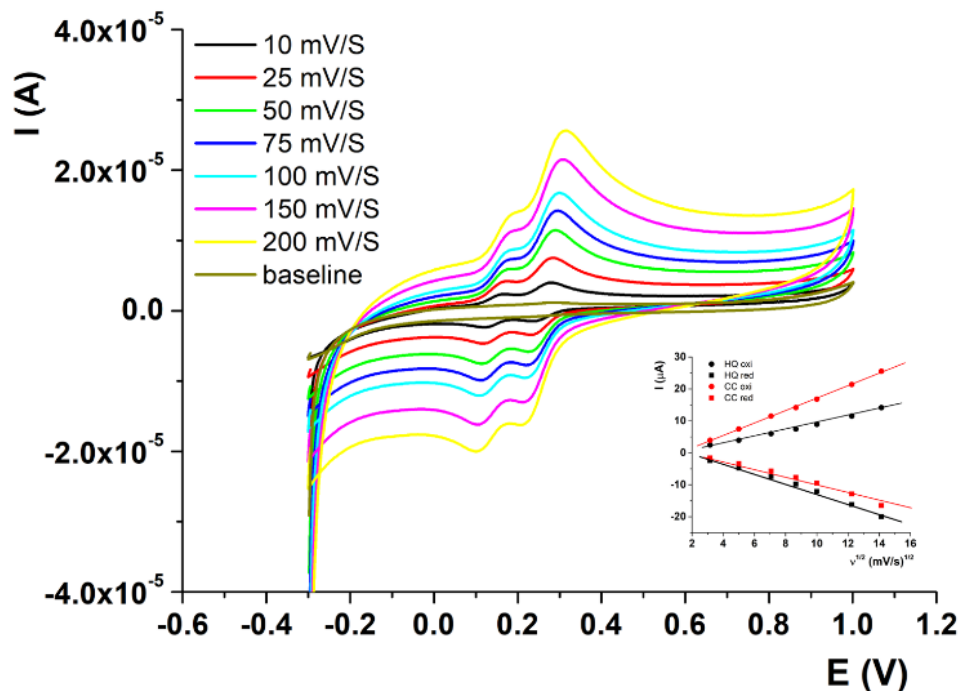


Fig. S4 CV voltammograms of CC and HQ at various scan rates in the range from 10 to 200 mV/s. Supporting electrolyte Ac-buffer, working electrode MgFe@RGO composite modified electrode. Dependence of peak currents and square root of the scan rate (inset).

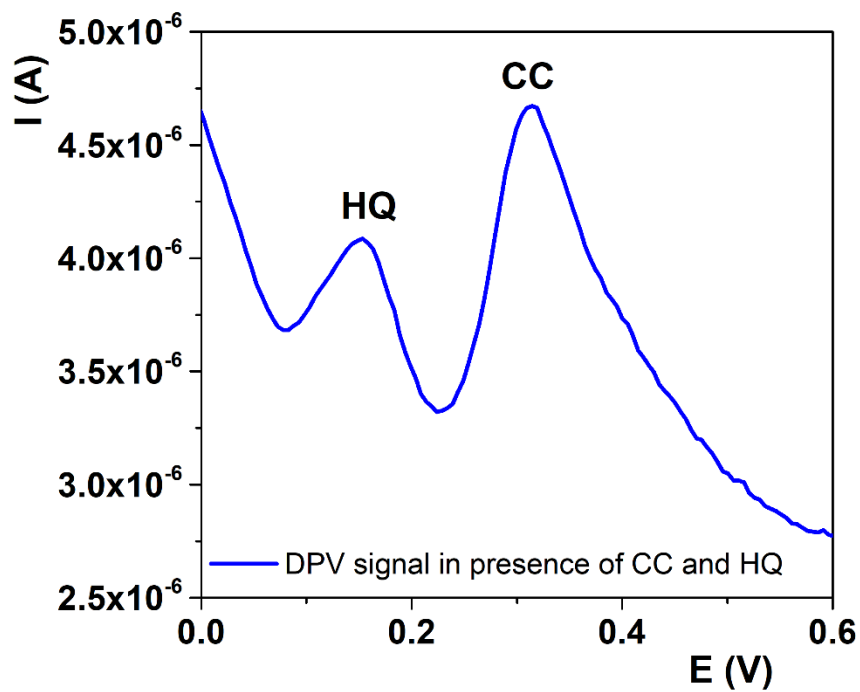


Fig. S5 DPV voltammogram in the presence of 0.1 mM of both analytes.