Supporting Information:

Synergetic effects of Poly-Tartrazine/CTAB Modified Carbon Paste Electrode sensor towards simultaneous and interference-free determination of benzenediol isomers.

Amit B. Teradale[a], Kailash S. Chadchan[b], Pattan-Siddappa Ganesh[c], Swastika. N. Das [b]* and Eno E. Ebenso[d,e]

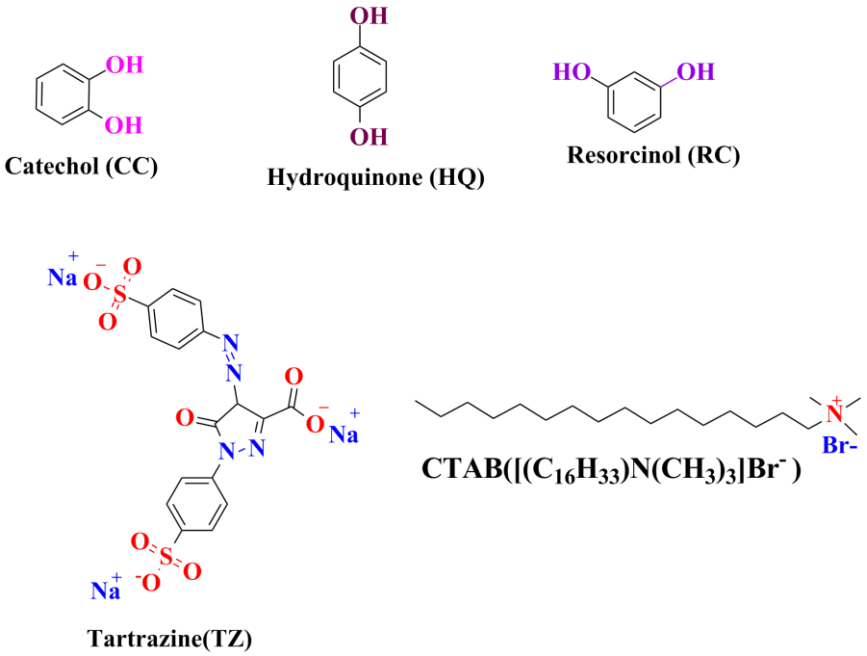
[a] PG Department of Chemistry, BLDEA's S.B. Arts and K.C.P. Science College, Vijayapur, Karnataka, 586103, India.

[b] Department of Chemistry, BLDEA's V. P. Dr. P. G. Halakatti College of Engineering and Technology, Vijayapur- 586103, affiliated to Visvesvaraya Technological University, Belagavi, Karnataka, India.

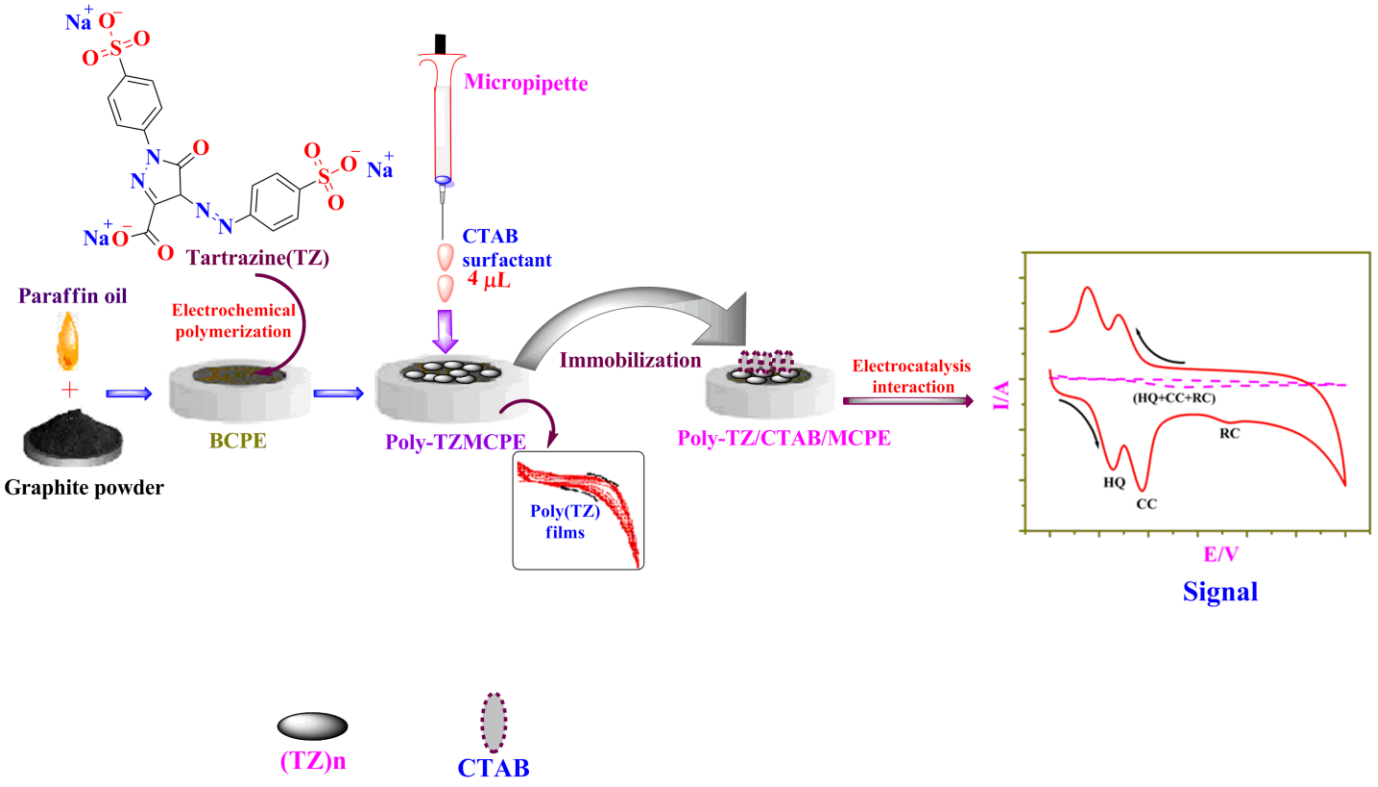
[c] Advanced Technology Research Center, Korea University of Technology and Education, Cheonan-si, Chungcheongnam-do, 31253, Republic of Korea.

[d] Centre for Material Science, College of Science, Engineering and Technology, University of South Africa, Johannesburg 1710, South Africa

e Institute of Nanotechnology and Water Sustainability, College of Science, Engineering and Technology, University of South Africa, Johannesburg 1710, South Africa



Scheme S1: Molecular structures of Catechol, Hydroquinone, Resorcinol, Tartrazine and CTAB.



Scheme S2: Preparation of poly-TZ/CTAB/MCPE Sensor.

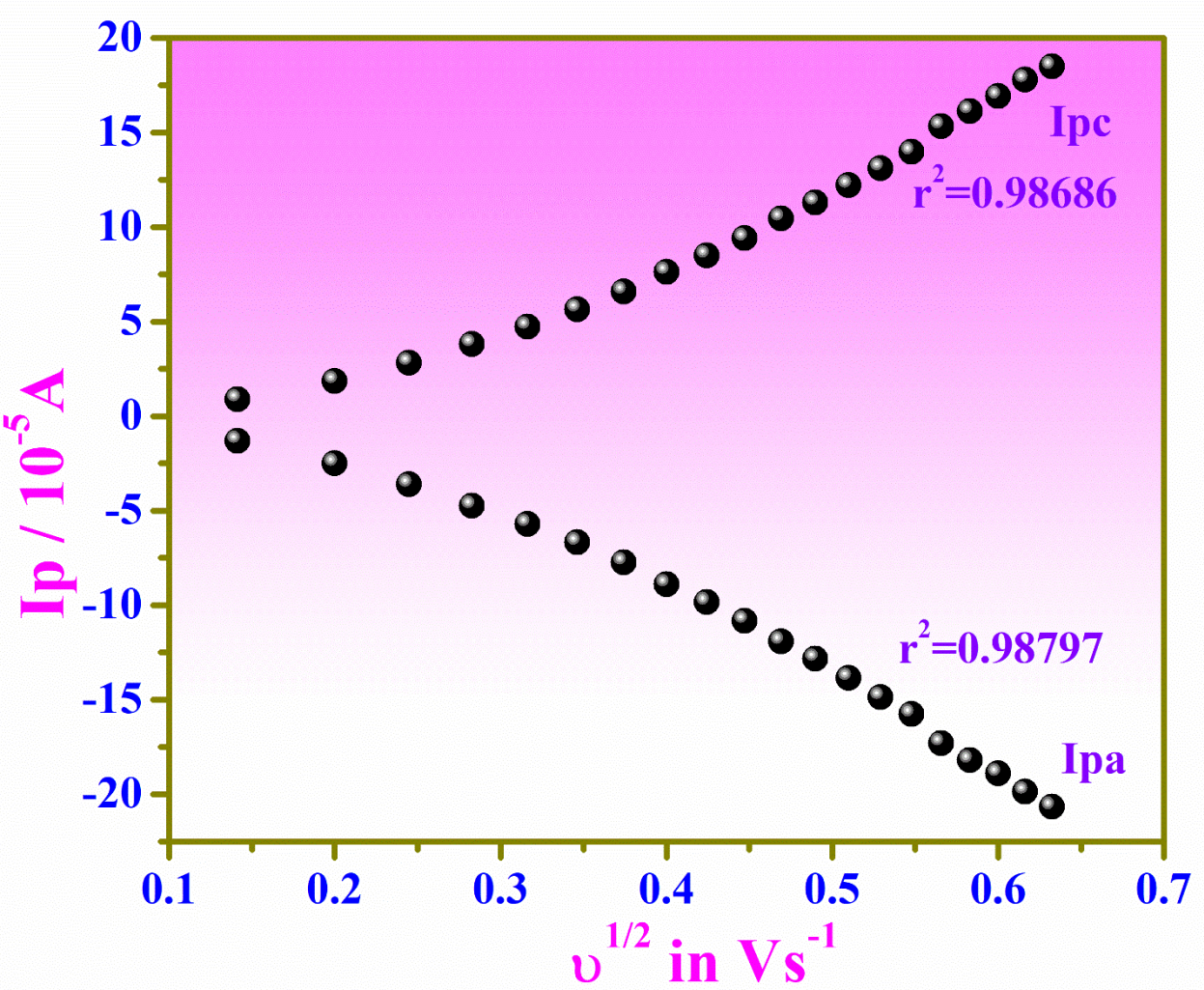


Fig S1: Plot of Ipa $\upsilon^{1/2}$ for CC

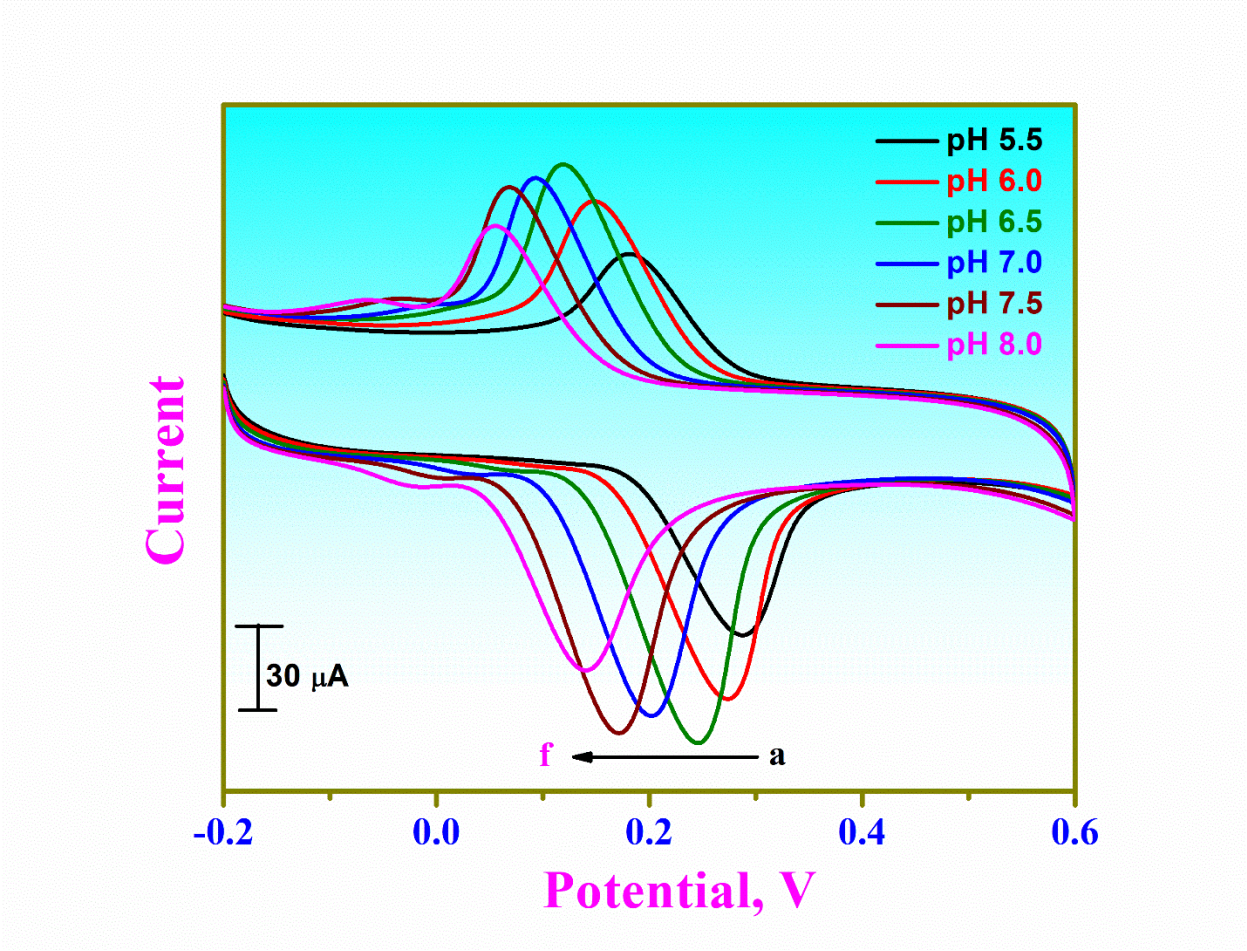


Fig S2: Cyclic voltammograms for oxidation of CC at poly-TZ/CTAB/MCPE in 0.2 M PBS solution at different pH values (a–f: 5.5 to 8.0) at scan rate of 0.05 Vs^{-1}

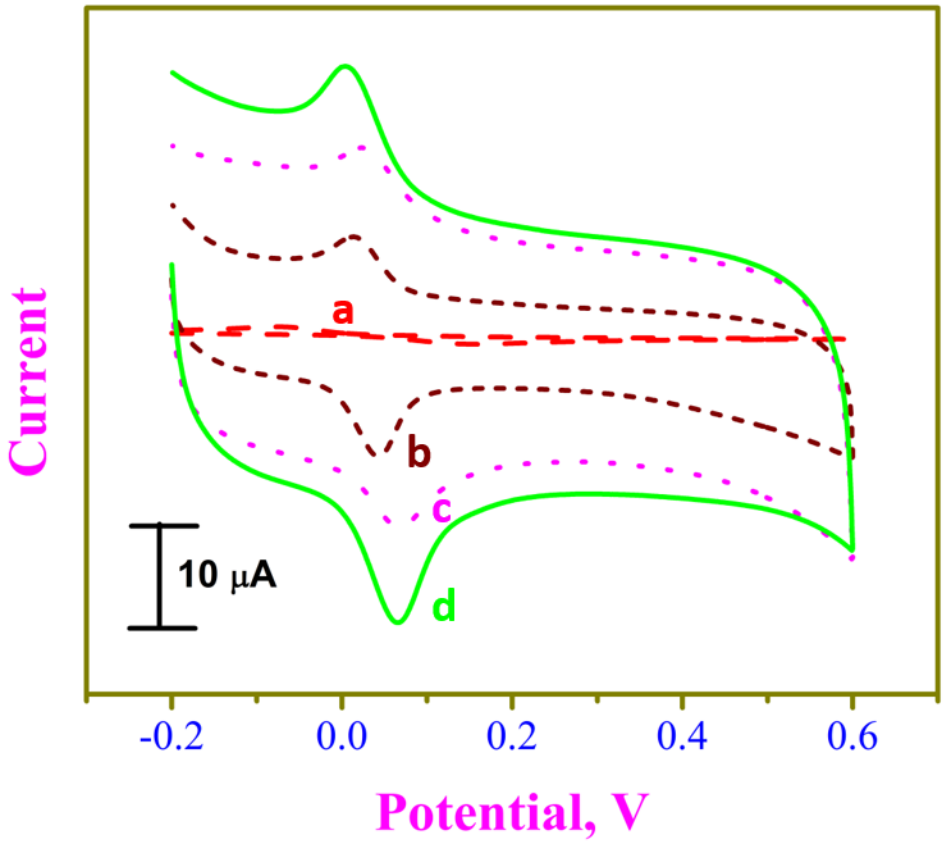


Fig S3: Different CV curves for HQ at different MCPE: (a) At bare CPE (b) CPE+ CTAB (c) CPE+ TZ; (d) CPE+TZ+CTAB.

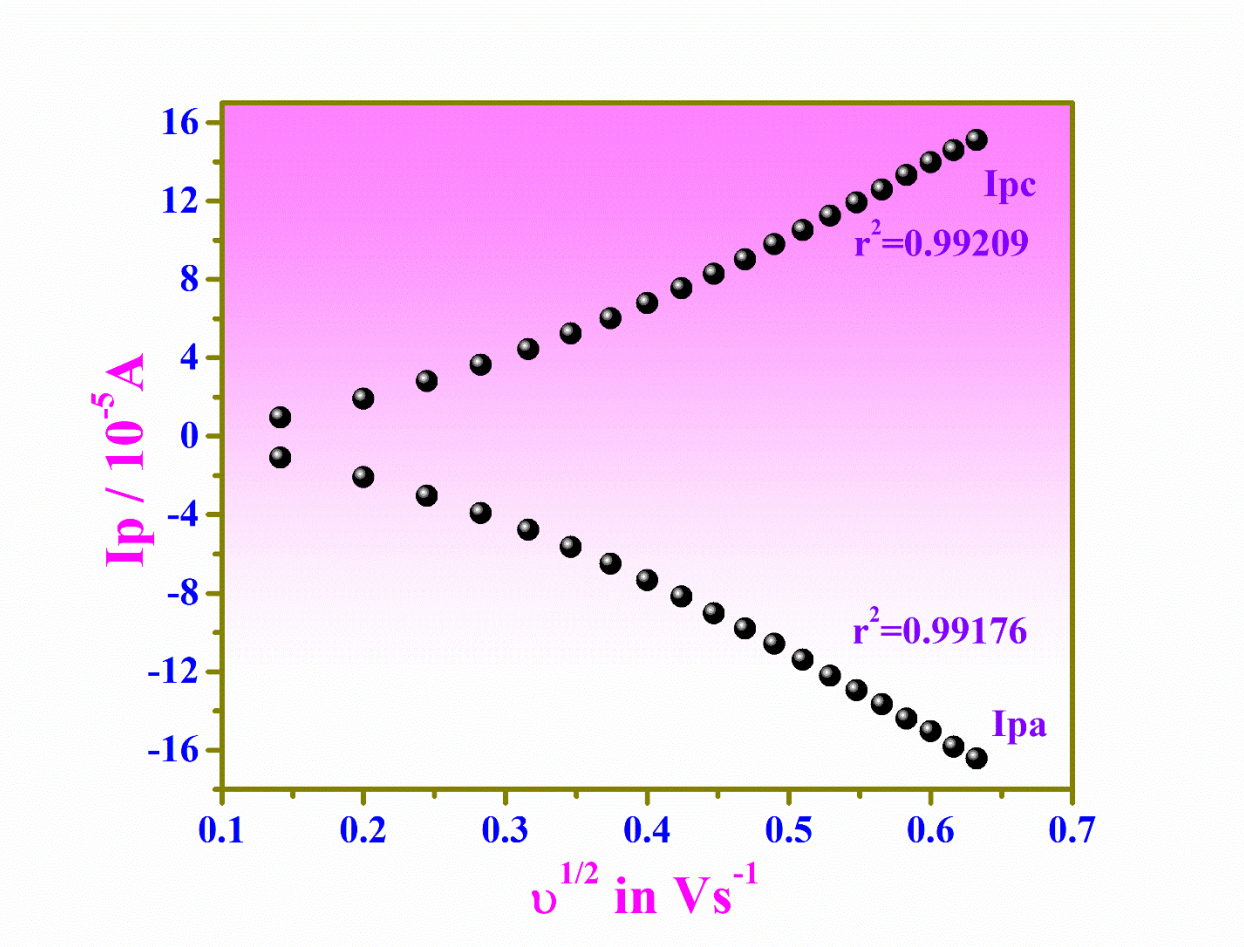


Fig S4: Plot of Ipa vs. $\upsilon^{1/2}$ for HQ.

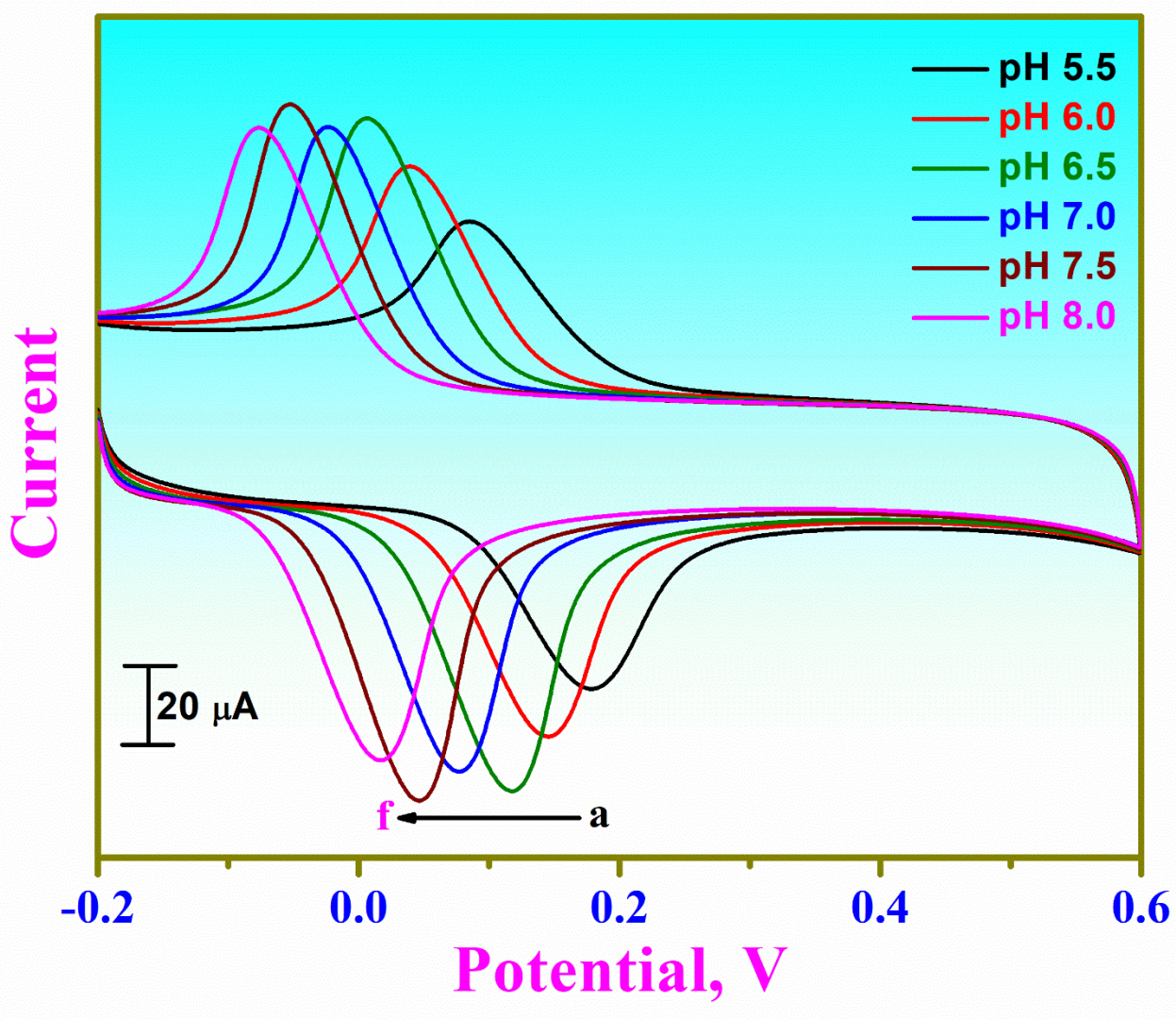


Fig S5: CV curves of oxidation of HQ at the poly-TZ/CTAB/MCPE in 0.2 M PBS solution at different pH values (a–f: 5.5 to 8.0) at scan rate of 0.05 Vs^{-1}.

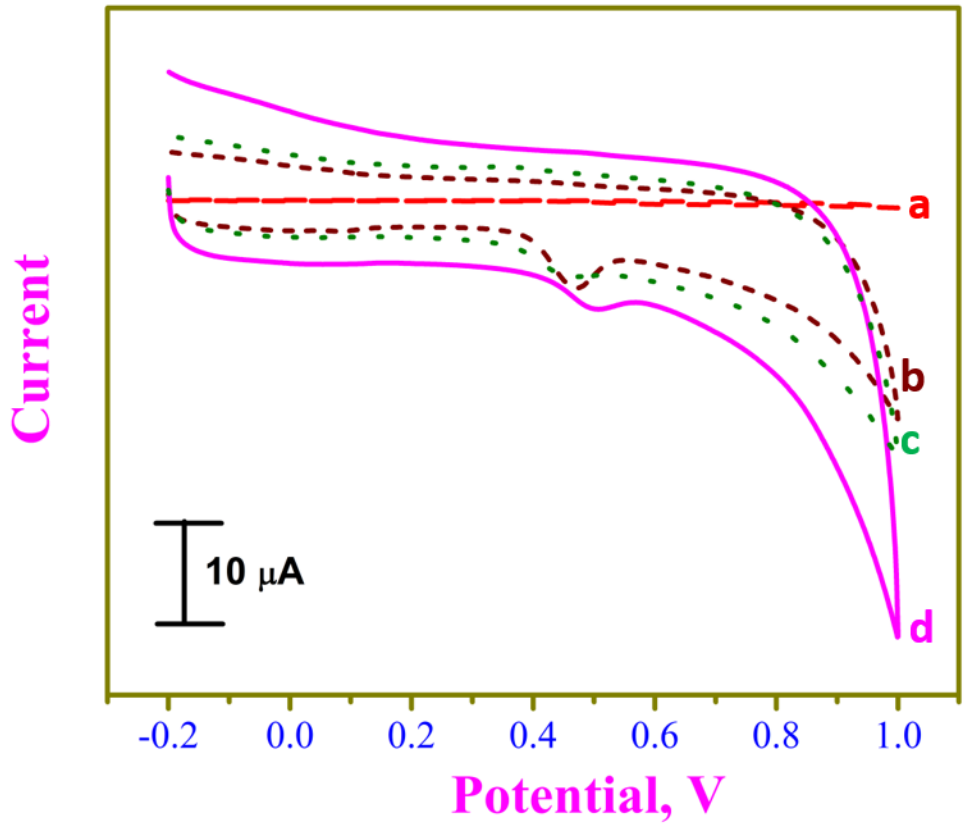


Fig S6: Different CV curves for RC at different MCPE: (a) At bare CPE (b) CPE+ CTAB (c) CPE+ TZ; (d) CPE+TZ+CTAB.

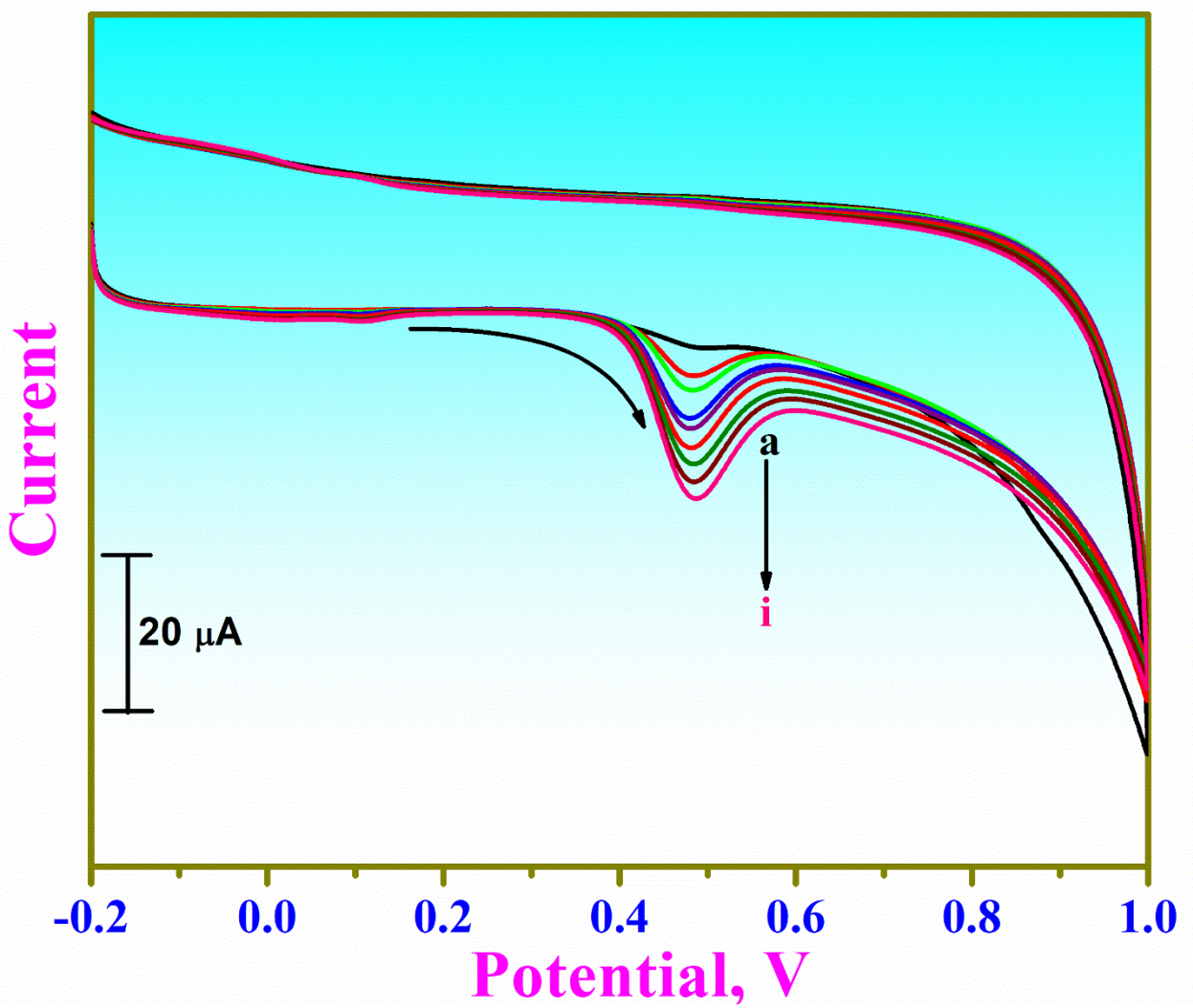


Fig S7: CV curves of RC in 0.2 M PBS solution of pH 7.4 at poly-TZ/CTAB/MCPE at scan rate of 0.05 $Vs^{-1}$with different concentrations (a–i: 0.05 mM, to 0.45 mM at the increment of 0.05 mM).

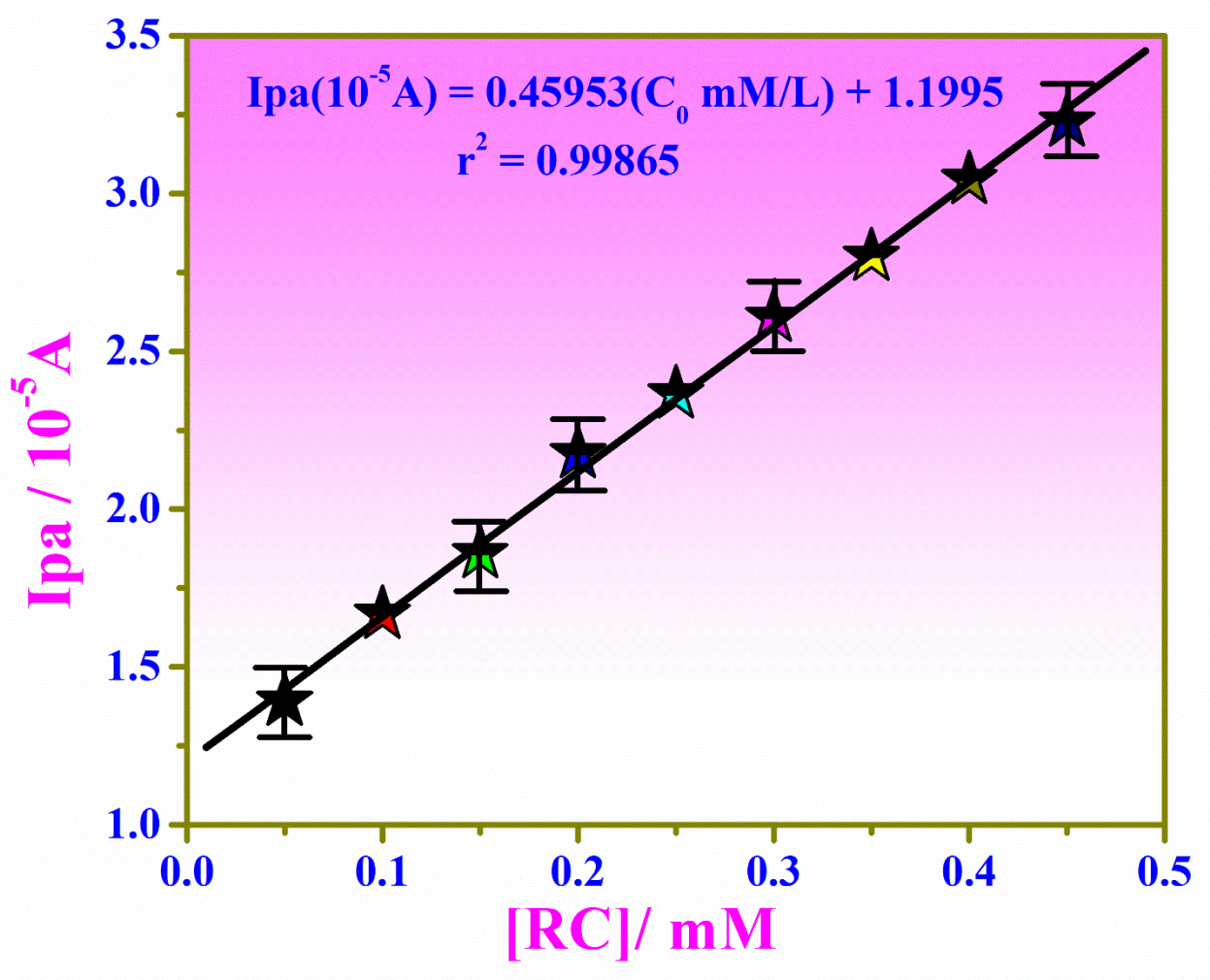


Fig S8: Plot of Ipa vs concentration of [RC].

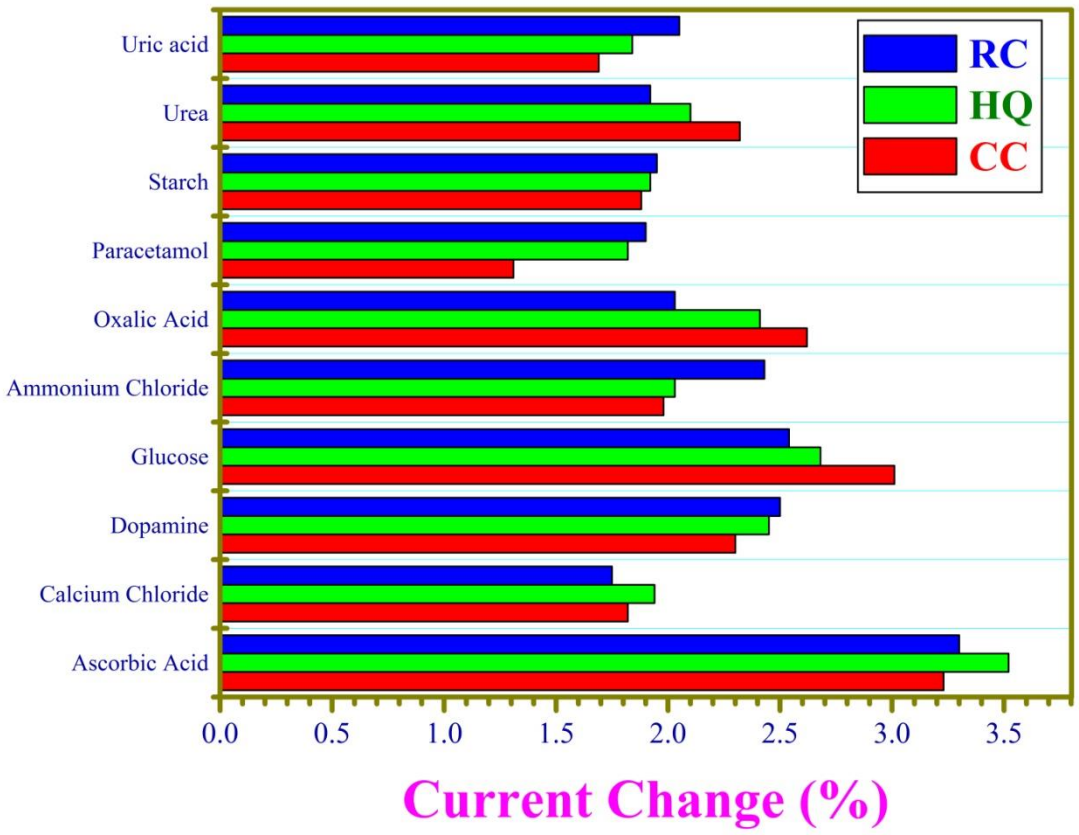


Fig S9: Effect of various interferents on the determination of ternary mixture of CC, HQ and RC at poly-TZ/CTAB/MCPE.