Supplementary file

Structuring Biogenic Synthesis of Rare Phase $LaMn_2O_5$ Using *Bauhinia Variegata* (Kachnar) Flower Extract for Highly Sensitive, Long Range Electrochemical Detection of Bisphenol-A, an Endocrine Disruptor

Ankur Srivastava[1], Kshitij. RB. Singh[1], Mrituanjay D. Pandey*[1] and Jay Singh*[1]

[1]*Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi-221005 Uttar Pradesh, India.*

*Corresponding Author: Email: mdpandey.chem@bhu.ac.in **(MPD)** ORCID ID: https://orcid.org/0000-0001-5221-9459 and Email: jaysingh.chem@bhu.ac.in **(JS),** ORCID ID: 0000-0002-3793-0450; Phone: +91-9871766453)

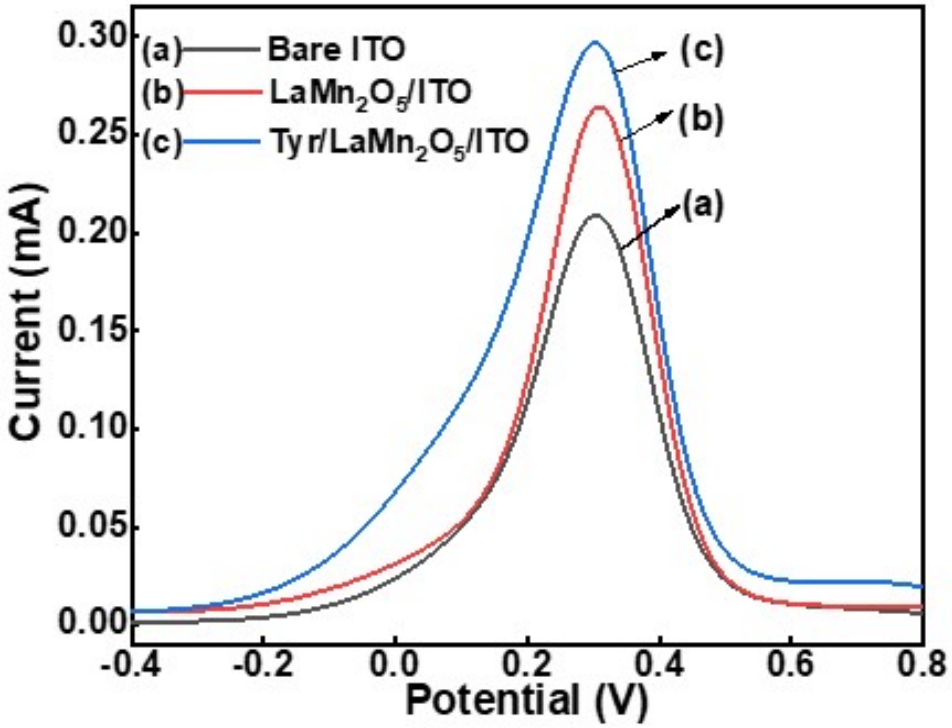

Figure [S1]; DPV graph showing I_p current for bare ITO electrode (a), $LaMn_2O_5$/ITO electrode (b), Tyr/$LaMn_2O_5$/ITO bioelectrode(c)

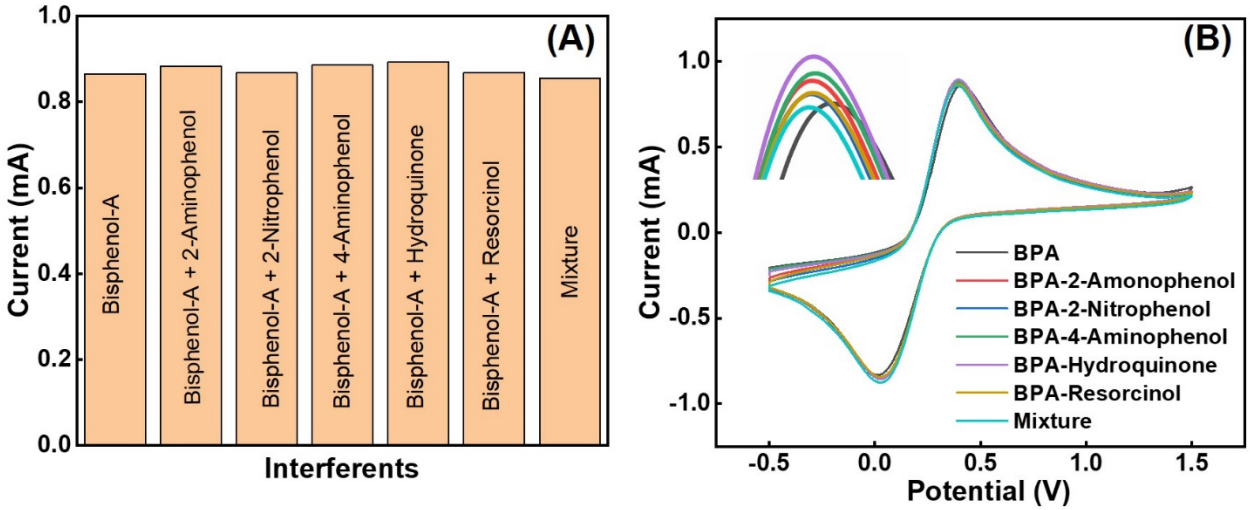

Figure [S2]; (A) & (B) shows the selectivity analysis for the Bisphenol-A using various interference analytes containing phenolic groups.

Table [T1]; Shows the percent RSD value for the interferents in the selectivity analysis.

BPA with interfering substance (50 µM each)	Cathodic peak current (Ipa; mA)	% RSD
BPA	0.8658	Standard
BPA-2-Aminophenol	0.8837	2.06
BPA-2-Nitrophenol	0.8682	0.27
BPA-4-Aminophenol	0.8860	2.33
BPA-Hydroquinone	0.8938	3.23
BPA-Resorcinol	0.8558	0.27
Mixture	0.8682	0.71