

Supplementary Material

Electrochemical Bio-Electronic Tongue with Borophene/PPy@ITO Hybrid for Selective Caffeine Identification

Shahzad Ahmed^{a,#,*}, Arshiya Ansari^{a,#,*}, Bibekananda De^b, Subrata Mukherjee^b, Devendra Singh Negi^{a,*}, Pranay Ranjan^{a,*}

^a Department of Metallurgical and Materials Engineering, Indian Institute of Technology Jodhpur, Jodhpur, Rajasthan-342030, India.

^b Composite Research and Technology (CResT), Advanced Materials and Characterization Research Group, Research and Development (R&D), Tata Steel Ltd, Jamshedpur, Jharkhand 831001, India.

*Corresponding authors:

Shahzad Ahmed; Email: p22mt007@iitj.ac.in

Arshiya Ansari; Email: p22mt001@iitj.ac.in

Devendra Singh Negi; Email: devendra@iitj.ac.in

Pranay Ranjan; Email: pranay.ranjan@iitj.ac.in

#S.A. and A.A. contributed equally to this paper.

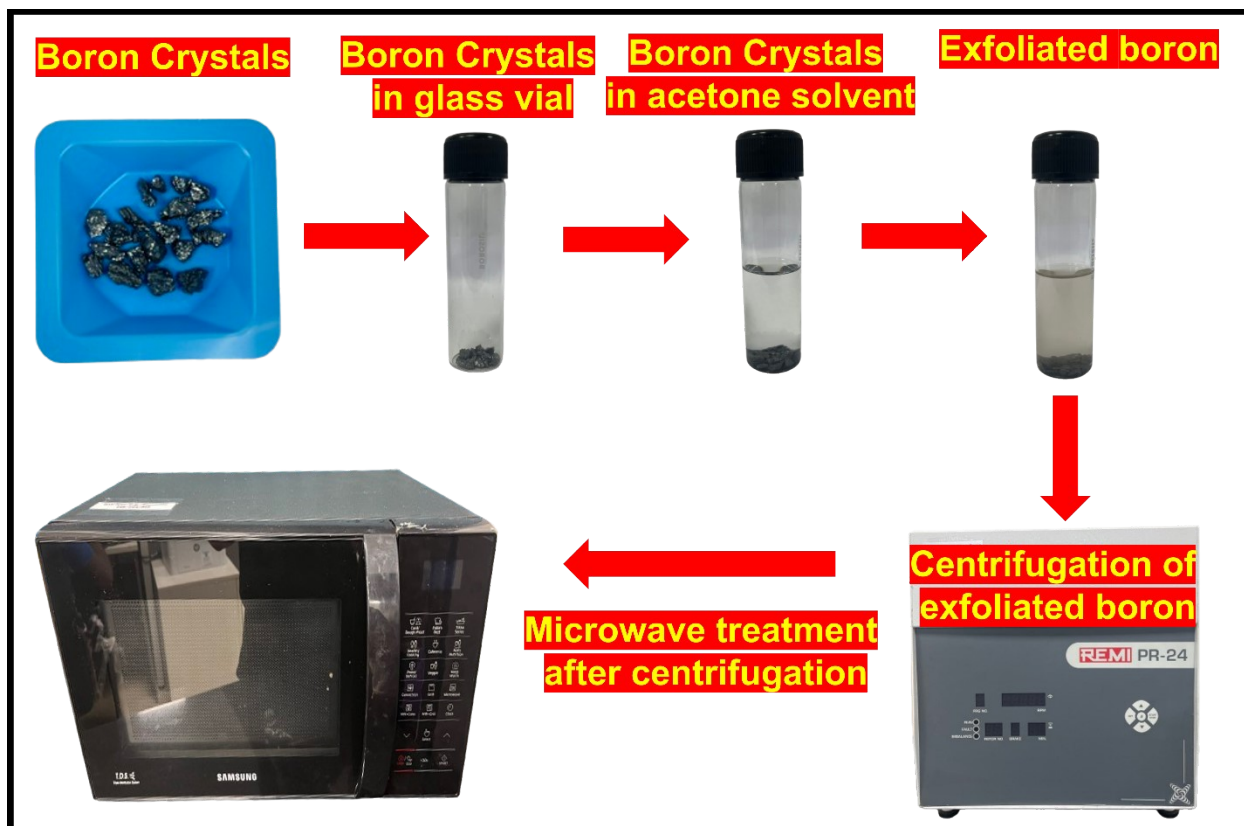


Figure S1. A camera image of borophene preparation.



Figure S2. A camera image of Borophene/PPy@ITO sensor.

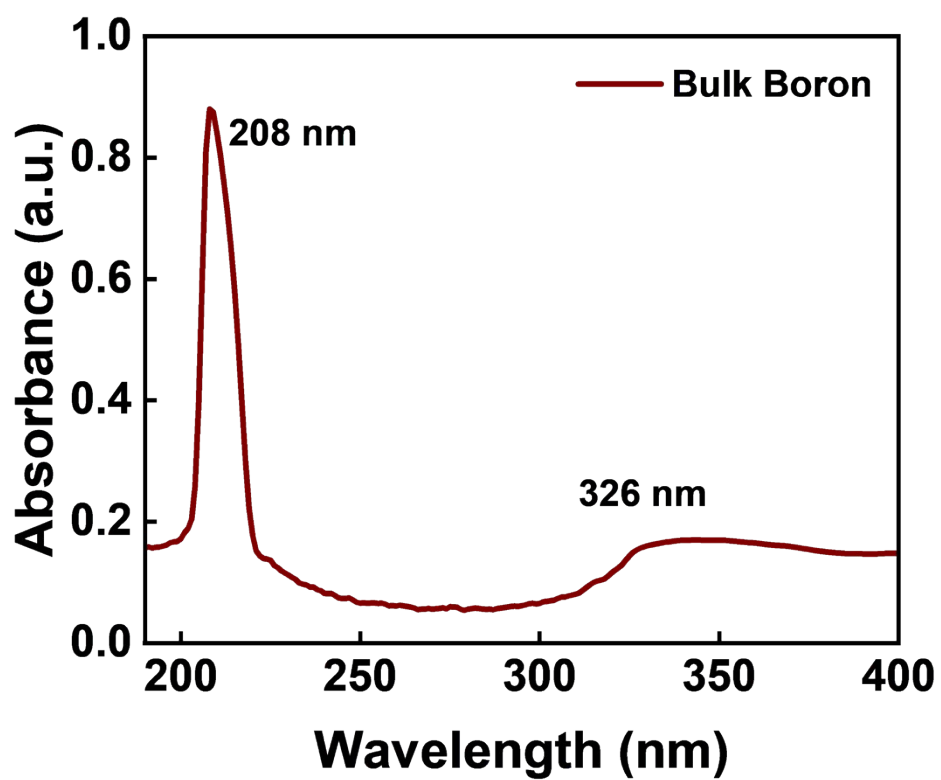


Figure S3. UV-Vis of bulk boron.

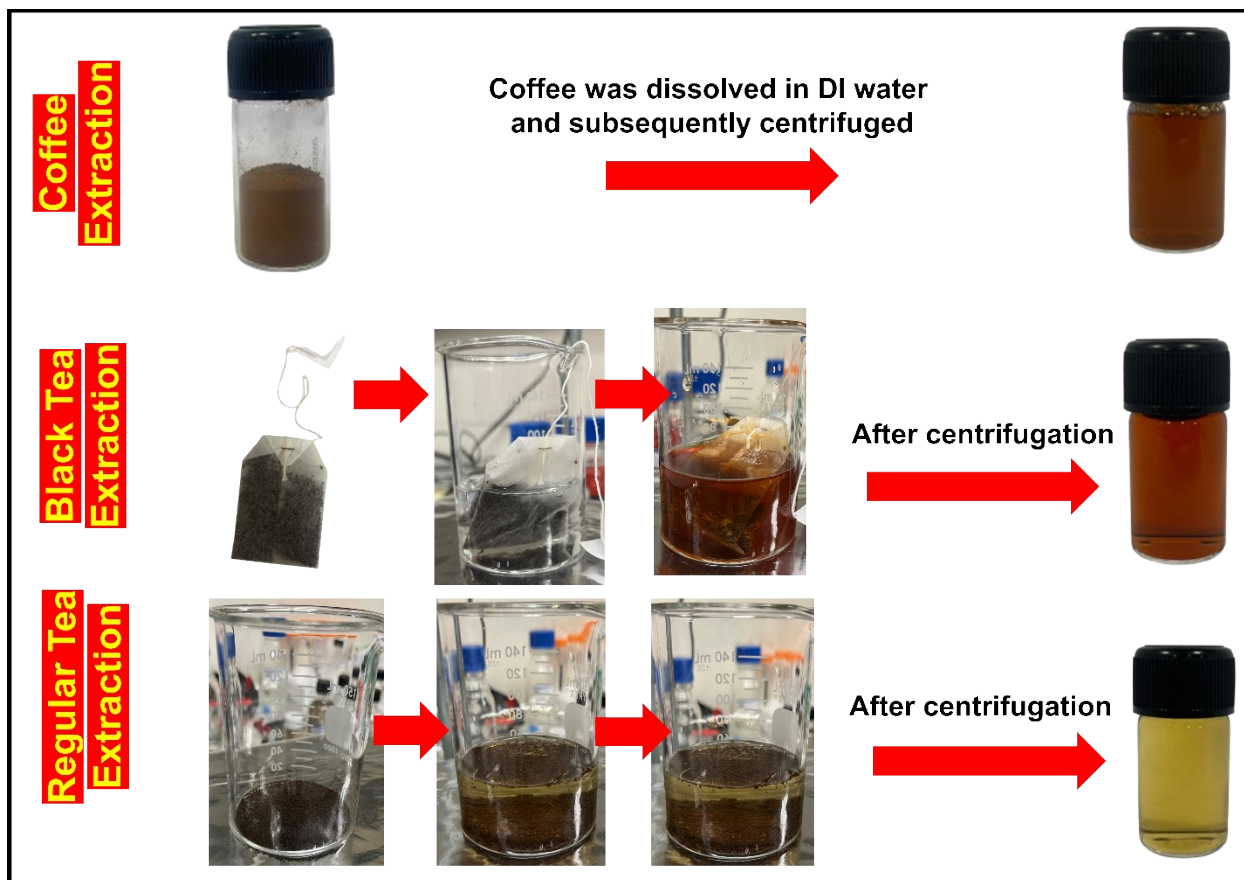


Figure S4. Camera images of the extraction procedure of the coffee, black tea, and regular tea.



Figure S5. Camera images of grinding of coffee, black tea, and regular tea for XRD measurement.