Electronic Supplementary Material (ESI) for Sustainable Food Technology.

Supplementary Information

Biogenic-Magnesium Oxide Nanoparticles from *Bauhinia Variegata* (Kachnar) Flower Extract: A Sustainable Electrochemical Approach for Vitamin-B_{12} Determination in Real Fruit Juice and Milk

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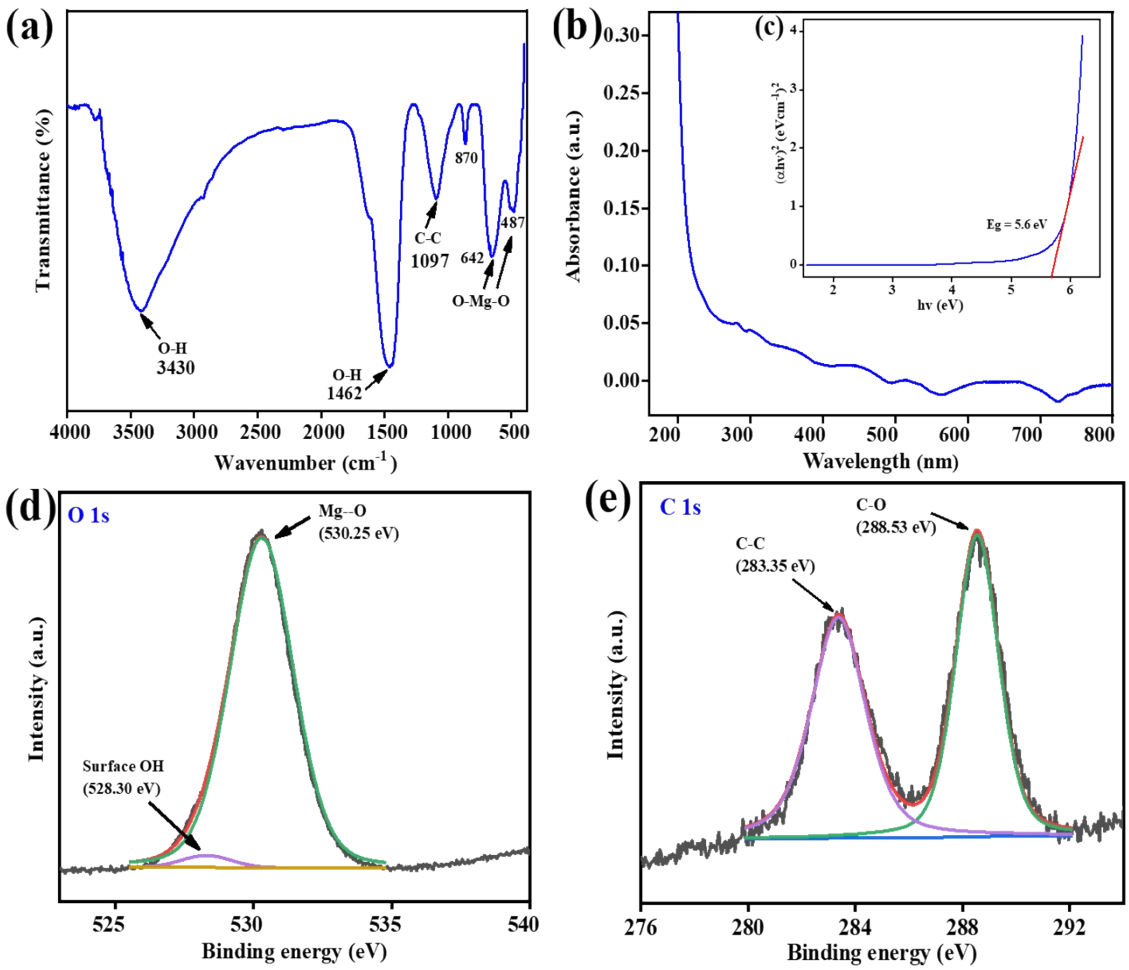

Figure S1. *(a) FTIR spectra of functional groups in B-MgO NPs, (b) UV spectra with (inset Figure c) Tauc's plot for band gap analysis, and (d&e) XPS analysis of O (1s) spectra, and C(1s) spectra in green contaminant of B-MgO NPs.*

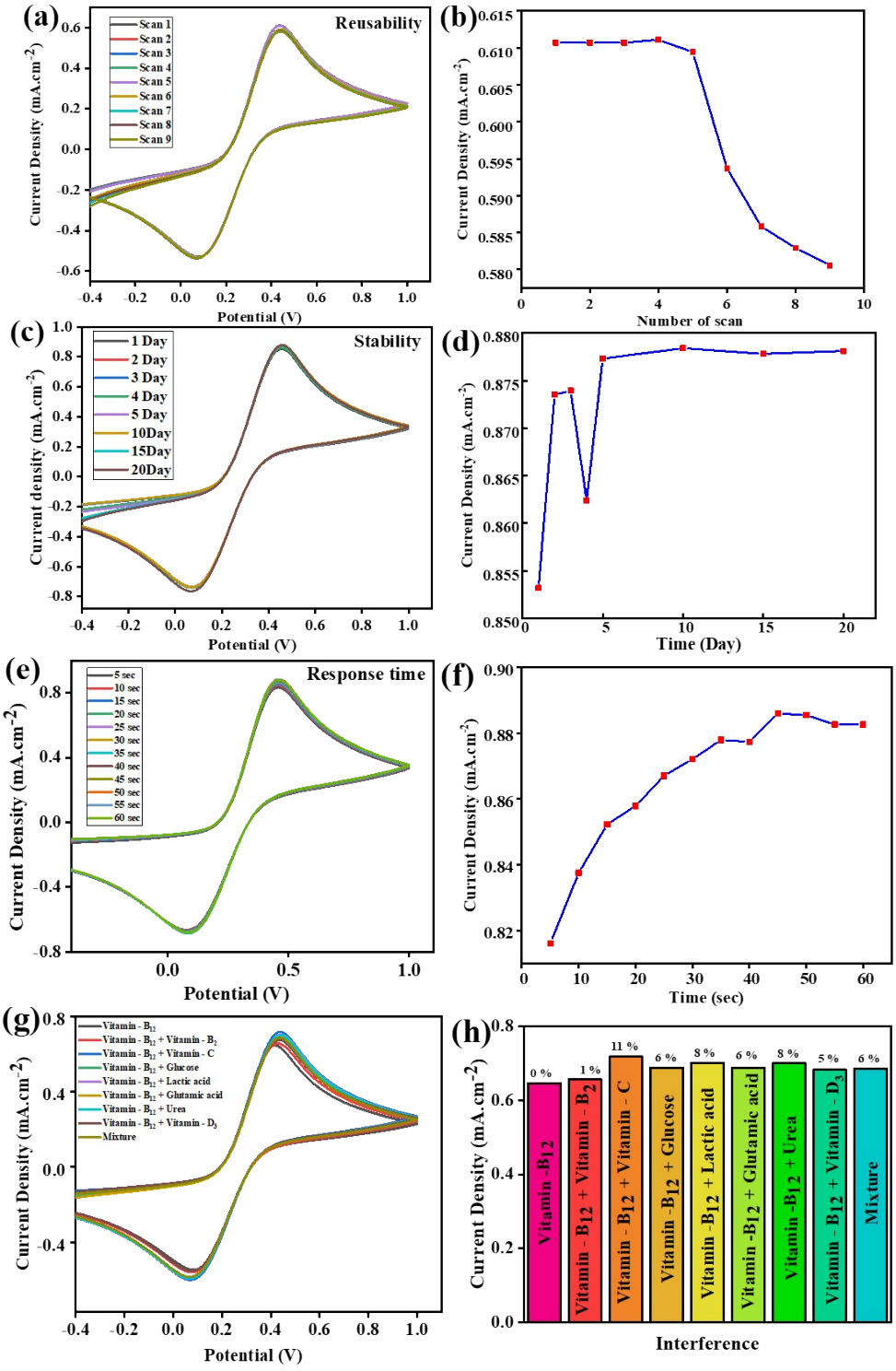

Figure S2. *Cyclic voltammetry studies of B-MgO NPs/ITO bioelectrode in $[Fe(CN)_6]^{3-/4-}$ contains phosphate buffer (0.9% NaCl, pH 7.5) at scan rate of 50 mV/s in the potential range of -0.8 to 1.0 V. (a&b) Reusability CV curve and linear graph, (c&d) Stability CV curve and linear*

graph,(e&f) Response time CV curve and linear graph and (g&h) CV curve and Bar graph of Interference study of Vit-B_{12} by prepared biosensor B-MgO NPs/ITO bioelectrode.