Supporting Information for

The Role of Mineral Nutrients in Plant-Mediated Synthesis of 3D Porous $LaCoO_3$

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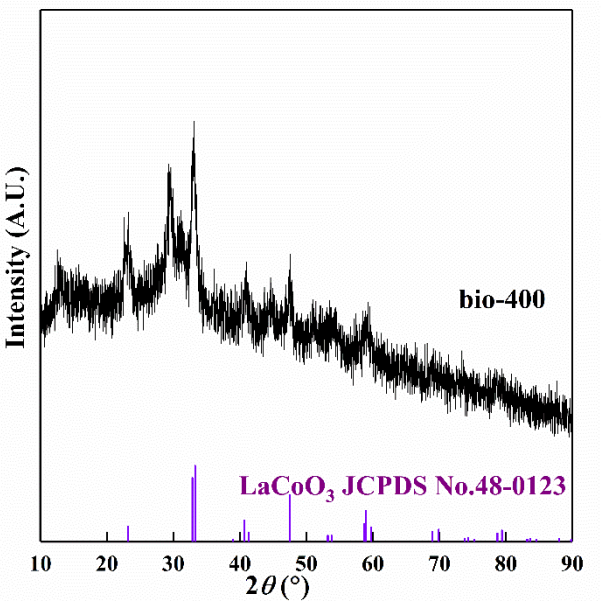

Figure S1. XRD pattern of bio-400 (sample that synthesized at 400 ℃ with the assistance of *Cacumen platycladi* extract).

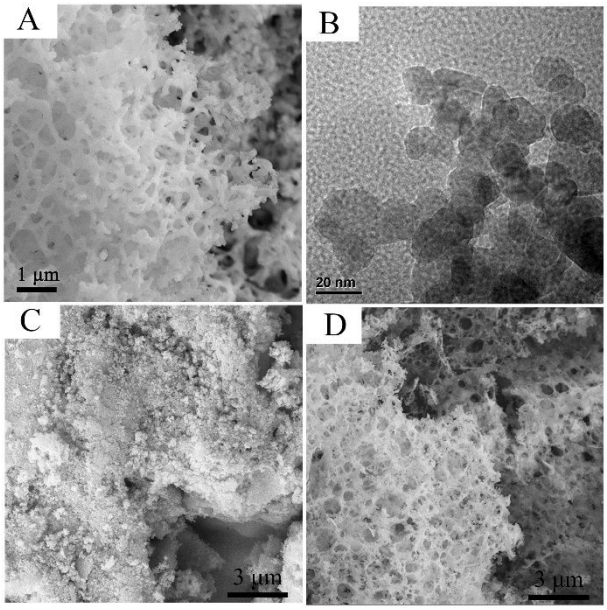

Figure S2. SEM images of: (A) chem-500(S), (C) bio-500(L), (D) bio-500(H), and TEM image of (B) chem-500(S).

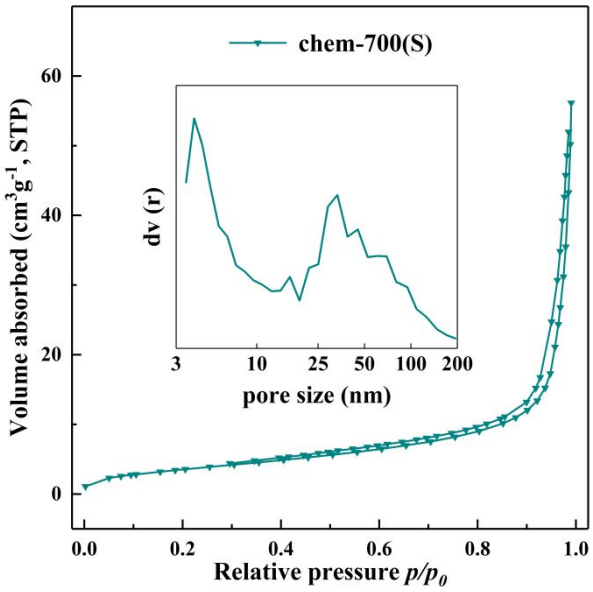

Figure S3. N_2 adsorption-desorption isotherms of chem-700(S). The inset is its pore-size distributions.

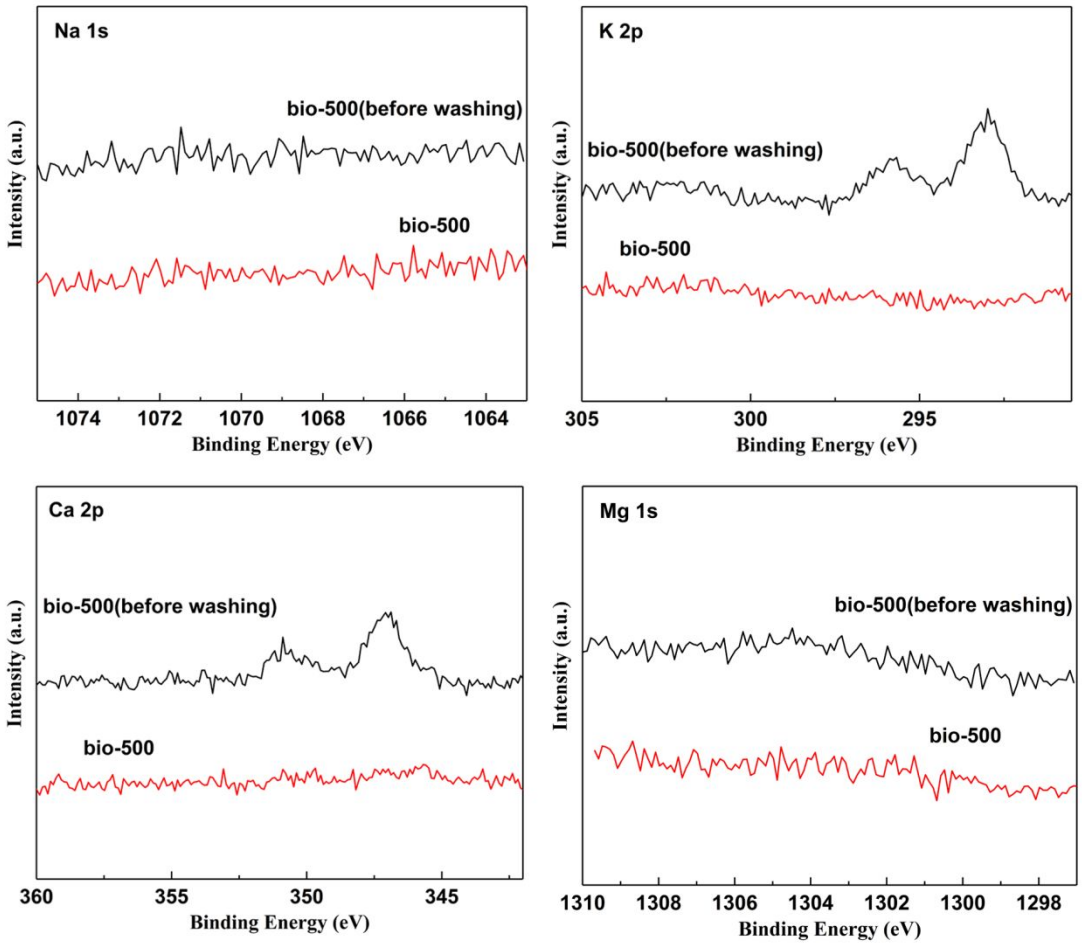

Figure S4. XPS spectra of Na 1s, K 2p, Ca 2p and Mg 1s of bio-500(before washing) and bio-500.

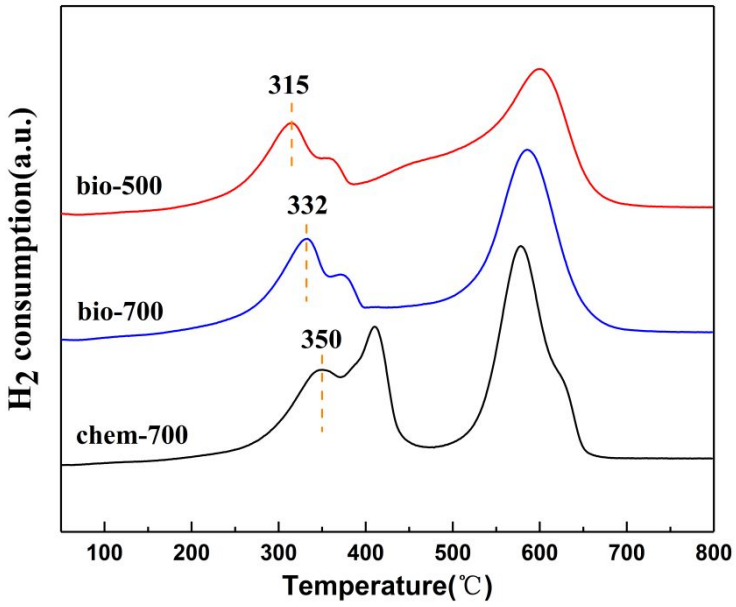

Figure S5. H_2-TPR profiles of bio-500, bio-700 and chem-700.

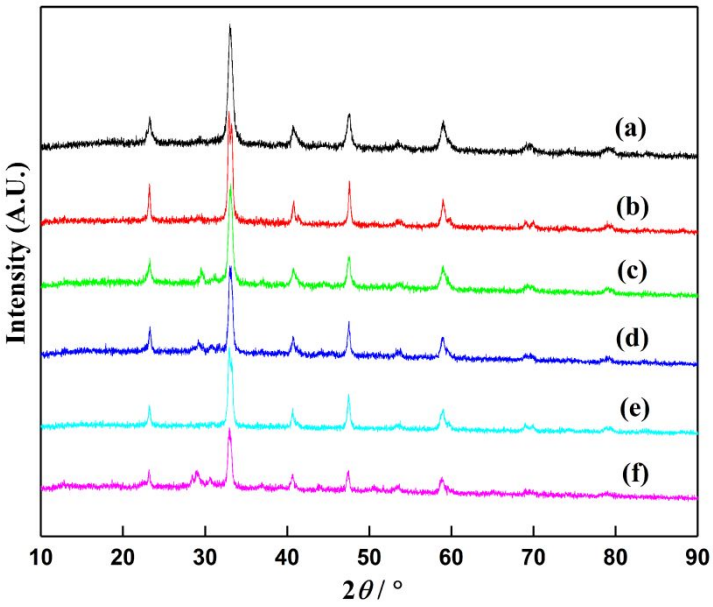

Figure S6. XRD patterns of (a) oolong tea leaf, (b). *Nerium Indicum Mill.* leaf, (c) *Cinnamomum camphora leaf*, (d) *Rosa chinensis* leaf, (e) *Banyan* leaf and (f) grass.

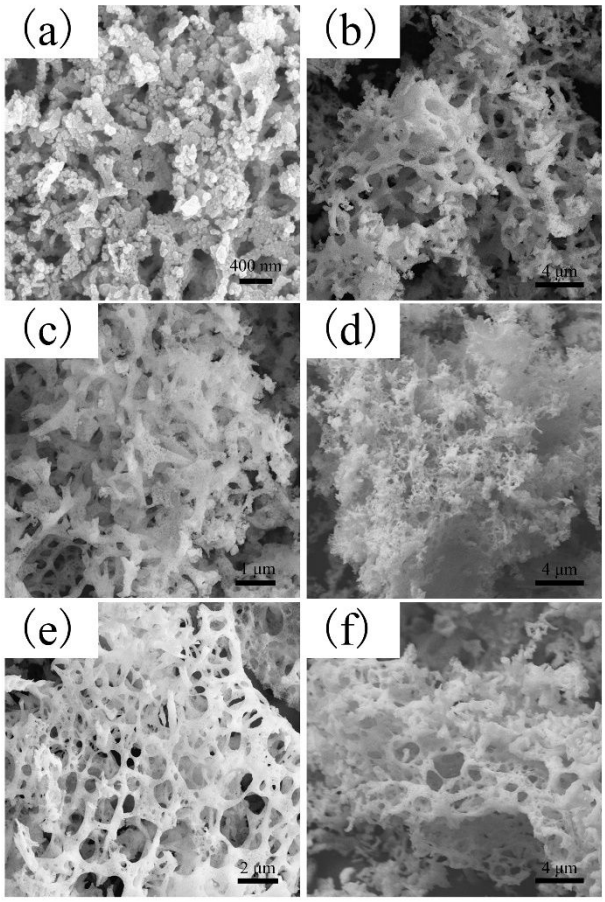

Figure S7. SEM images of (a) oolong tea leaf, (b). *Nerium Indicum Mill.* leaf, (c) *Cinnamomum camphora leaf*, (d) *Rosa chinensis* leaf, (e) *Banyan* leaf and (f) grass.

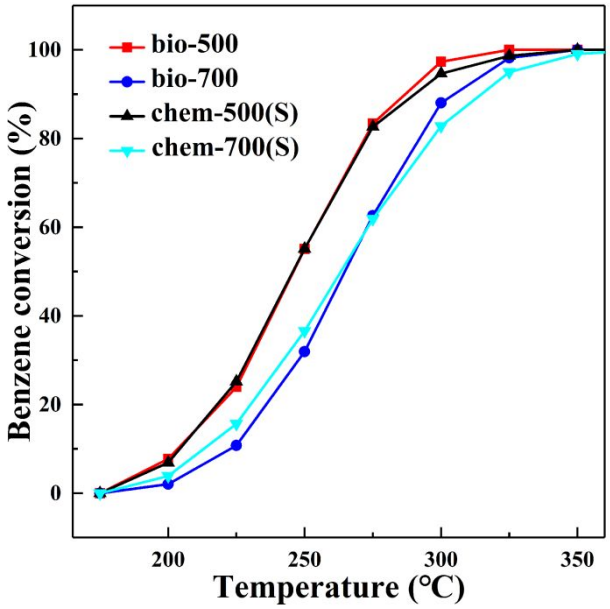

Figure S8. Benzene conversion as a function of reaction temperature over the samples.