Supplementary data

Eichhornia crassipes biochar using slow pyrolysis technique for the removal of Reactive Yellow 176 dye from aqueous medium: Isotherm, kinetics and thermodynamics study

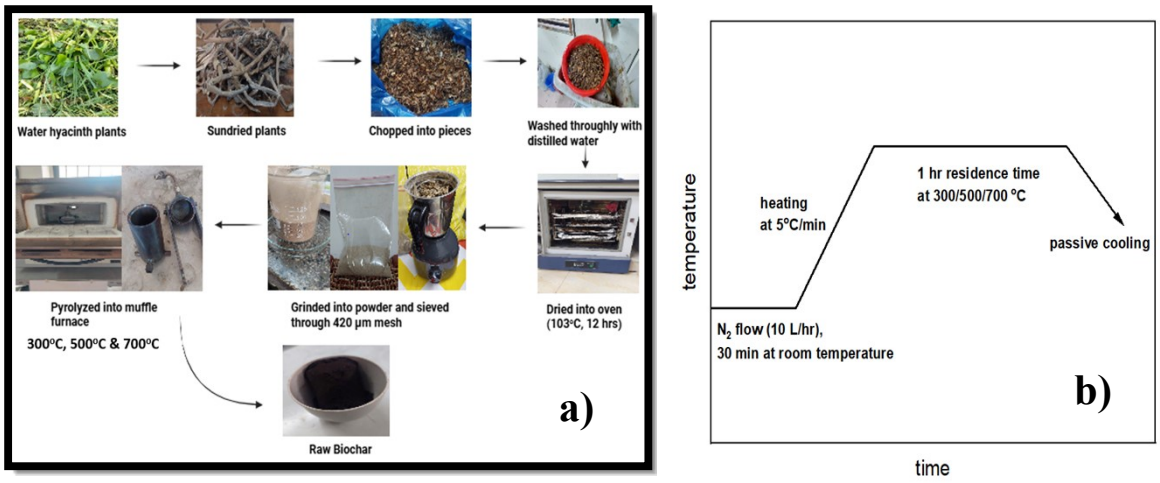
Nawshin Farzana[1,2], Rayhan Bin Masud[1], Tahzib Rayhan Himadry[1], Md. Shahinoor Islam[1,*]

[1]Department of Chemical Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

[2]Ahsanullah University of Science and Technology, Dhaka-1208, Bangladesh

*Corresponding authors: Md. Shahinoor Islam (shahinoorislam@che.buet.ac.bd)

Orcid ID: https://orcid.org/0000-0001-7663-7399



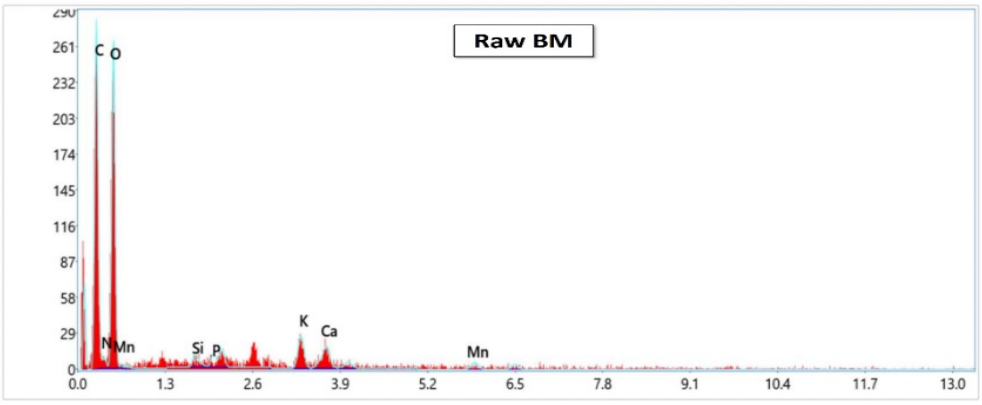
20

c(i) c(ii) c(iii)

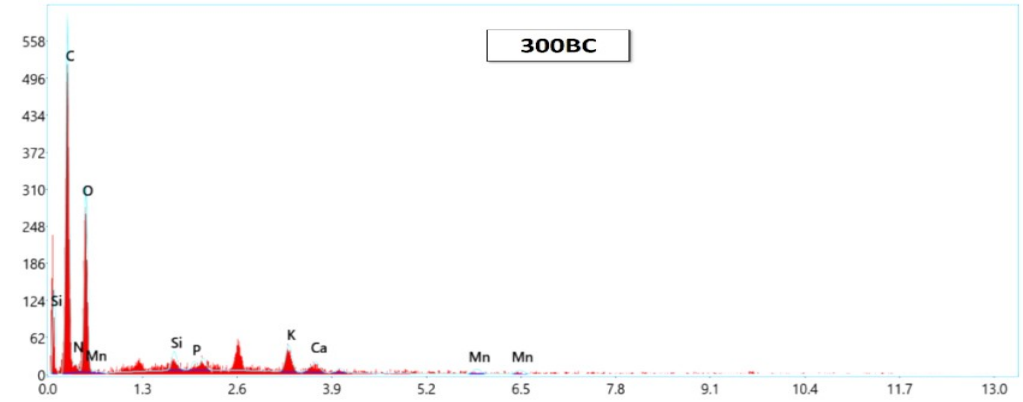
21

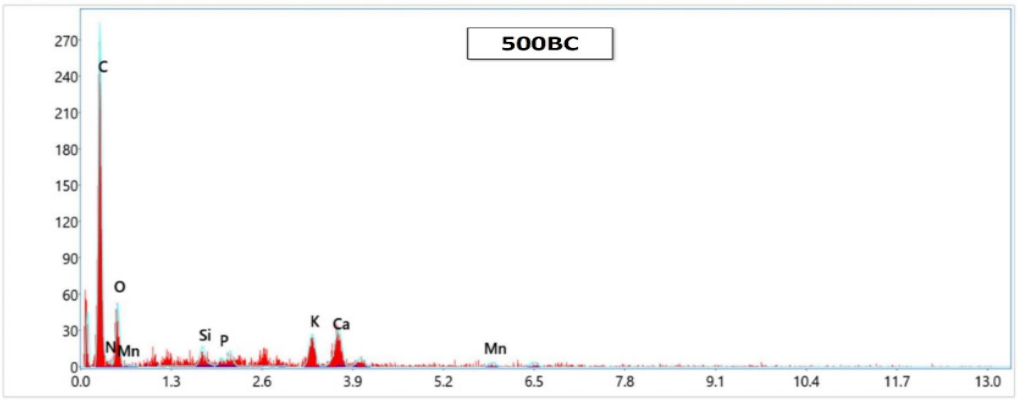
22 Fig S1. a) Biochar preparation through pyrolysis (under N_2 atmosphere) from *Eichornia*
23 *crassipes* (water hyacinth) biomass b) Pyrolysis profile c) Pyrolysis set up : i) Muffle furnace
24 ii) Pyrolysis Reactor c) Reactor setup inside the furnace

25



26





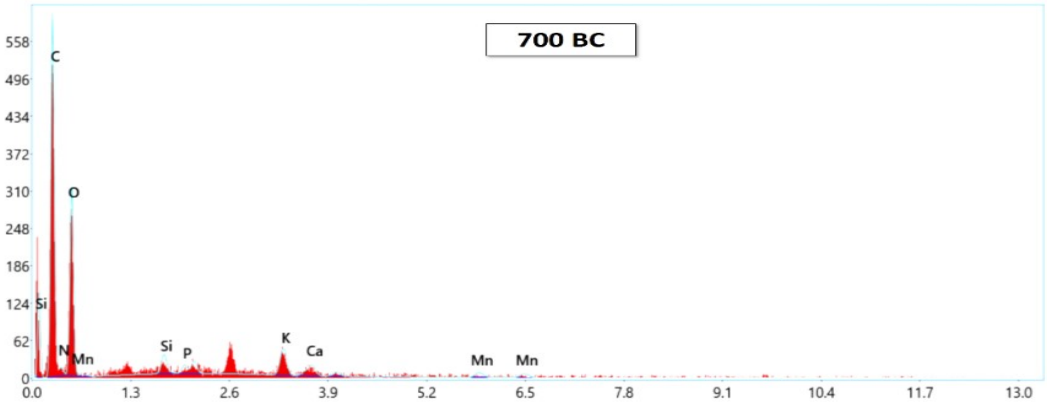


Fig S2. EDS spectra of raw biomass (Raw BM) and biochars pyrolyzed at 300 °C (300BC), 500 °C (500BC) and 700 °C (700BC)