Supporting Information

Sorption of Arsenic onto Ni/Fe Layered Double Hydroxide (LDH)-Biochar Composites

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2. Materials and Methods

Thermal stability of sorbents was evaluated using thermogravimetric analysis (TGA) with Mettler Toledo's TGA/DSC1 analyzer with combustion temperature up 700 °C under air atmosphere.

3. Results and Discussion

Thermal stability of as prepared sorbents was indicated by the decomposition temperature of the sorbents. Sharp thermal decomposition occurred between 352-533, 341-518, and 420-664 °C for PB, NFMF and NFMB, respectively (Figure S5). Gradual weight loss NFMF (up to 341 °C and NFMB (up to 420 °C) may ascribe to the loss of entrapped water in layer structure. Thus, NFMF is less thermally stable than PB, whereas NFMB is more thermally stable than PB. The nonvolatile residual contents after combustion are 4.0, 27.1, and 11.5 % for PB, NFMF and NFMB, respectively. This suggested Ni and Fe are present in both composites, with higher contents in NFMF.



Figure S1 XPS spectra for NFMF: Fe (a) and Ni (b), NFMB: Fe (c) and Ni (d)



Figure S2 AS LMM/9/1 peaks for As-loaded NFMF (a) and NFMB (b)



Figure S3 EDS elemental analysis for NFMF (a) and NFMB (b) (10,000 x)



Figure S4. XPS full survey spectra for As-loaded NFMF (a) and NFMB (b)

Figure S5. TGA curves of PB, NFMF and NFMB

