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1 **Supporting Information For**

2  
3 **Arsenite and Arsenate Binding to Ferrihydrite Organo-Mineral**

4 **Coprecipitate: Implications for Arsenic Mobility and Fate in Natural**

5 **Environments**

6  
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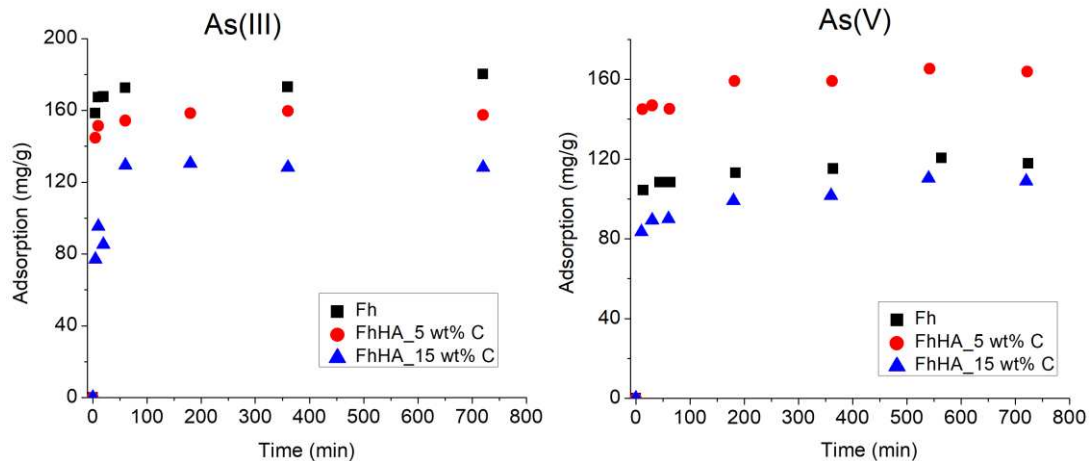
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22 **This file includes 5 Figures**

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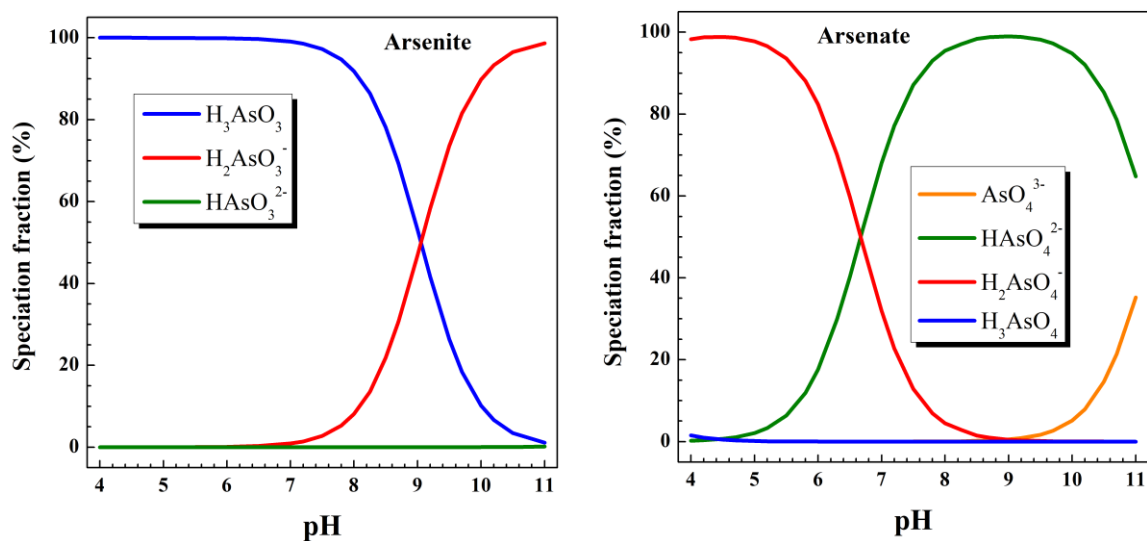


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26 **Figure S1.** Arsenite and arsenate adsorption kinetics on ferrihydrite-  
 27 HA coprecipitates at pH 7. Experimental solution contains 0.1 g/L adsorbent and ~0.4  
 28 mmol/L As(III) or As(V) in 0.01 M NaCl electrolyte.

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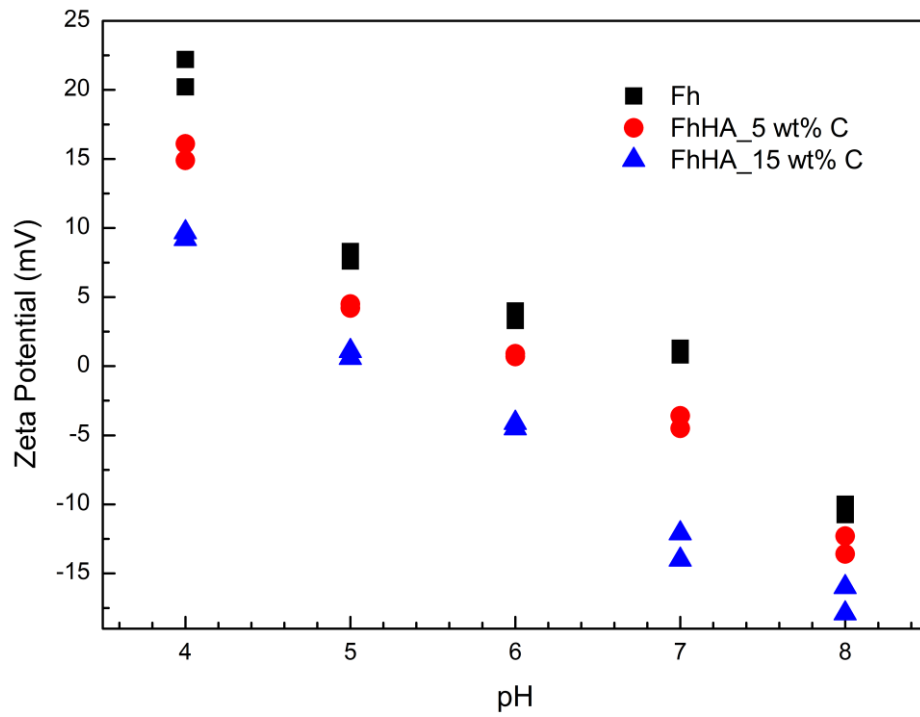


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32 **Figure S2.** Arsenite and arsenate speciation in aqueous solution calculated using the  
 33 software Visual Minteq (ver. 3.0). Experimental solution contains ~0.4 mmol/L As(III)  
 34 or As(V) in 0.01 M NaCl electrolyte.

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38 **Figure S3.** Zeta potentials of ferrihydrite and ferrihydrite-HA coprecipitates in the  
39 experimental adsorption solution.

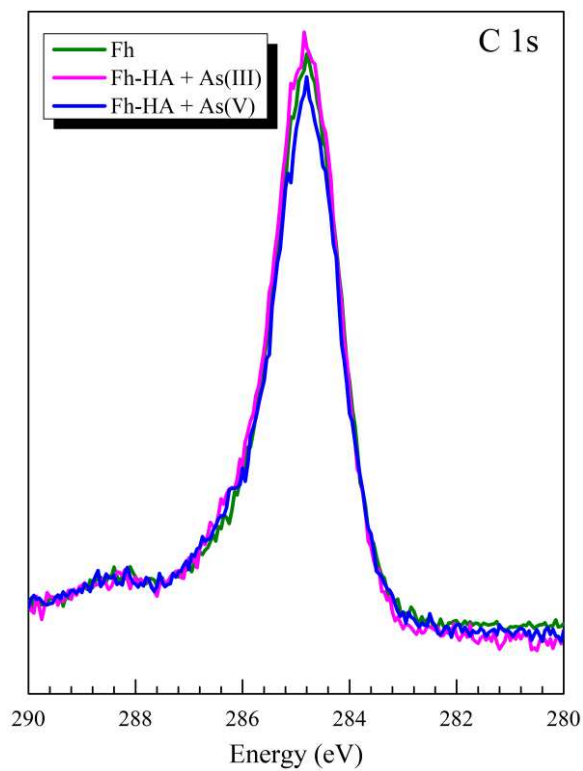
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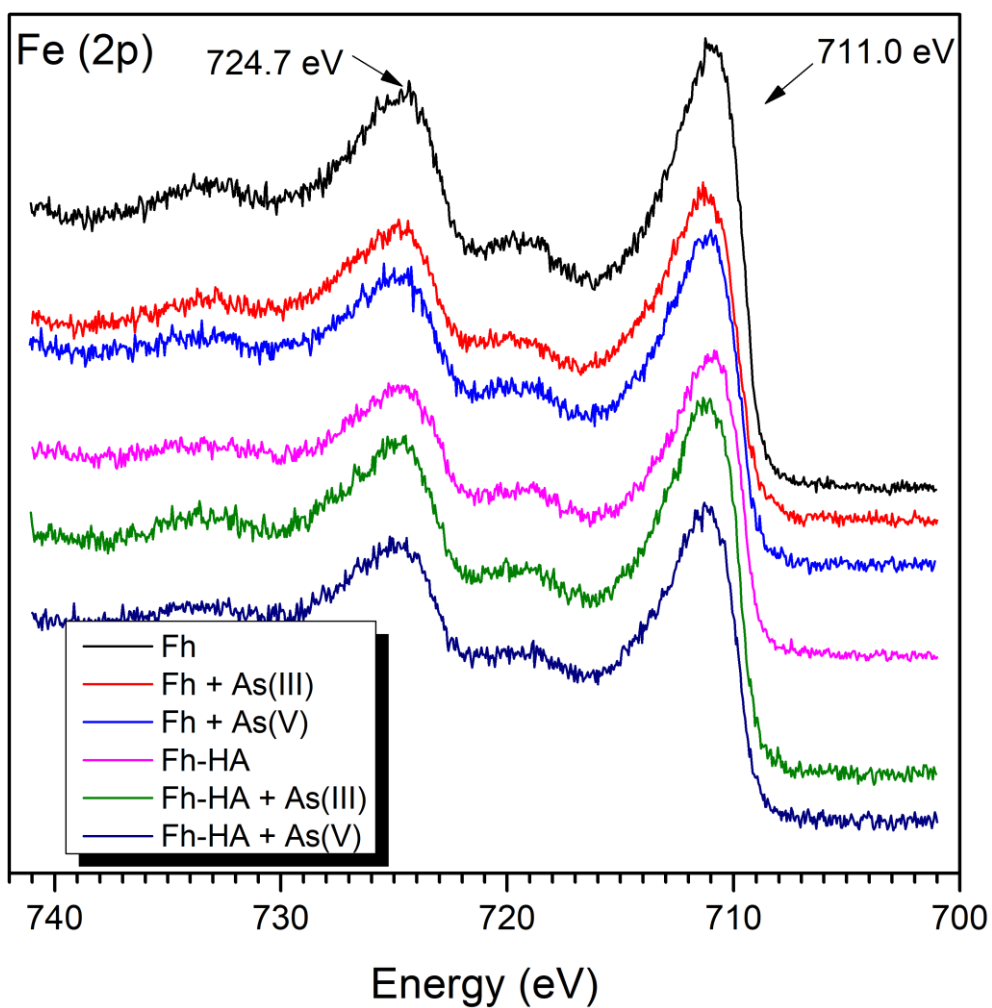


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47 **Figure S4.** C 1s XPS spectra of ferrihydrite-HA composite before and after the binding

48 of As(III) and As(V) at pH 7.



49

50 **Figure S5.** Fe 2p XPS spectra of ferrihydrite and ferrihydrite-HA composite before and

51 after the binding of As(III) and As(V) at pH 7.

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