

Table S1. Components of soil with As contamination via XRF.

Components	Mass (%)
SiO <sub>2</sub>	61.69
Al <sub>2</sub> O <sub>3</sub>	14.72
CaO	12.20
Fe <sub>2</sub> O <sub>3</sub>	5.67
K <sub>2</sub> O	2.33
TiO <sub>2</sub>	1.32
MgO	1.02
SO <sub>3</sub>	0.32
P <sub>2</sub> O <sub>5</sub>	0.31
Na <sub>2</sub> O	0.24
MnO	0.05
Cr <sub>2</sub> O <sub>3</sub>	0.04
ZrO <sub>2</sub>	0.03
ZnO	0.02
Co <sub>2</sub> O <sub>3</sub>	0.02
SrO	0.01
Rb <sub>2</sub> O	0.01

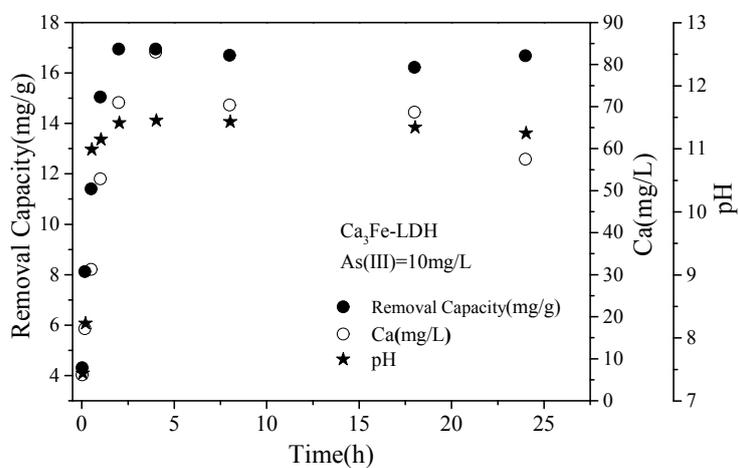


Figure S1. The removal of As(III), Ca concentration and pH in solution by Ca binary LDH.

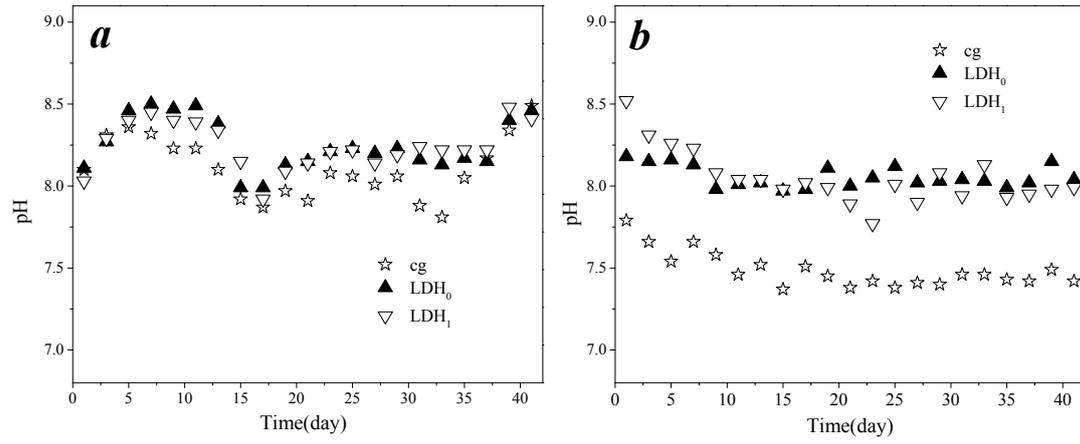


Figure S2. pH value in (a) surface water, (b) pore water.