

Table 2 Surface data implemented for the adsorption of As_i and As_{org} species on weak binding sites of HFO

PHREEQC Surface Data	log_k
Arsenate ^a	
Hfo_wOH + AsO ₄ ⁻³ + 3H ⁺ = Hfo_wH ₂ AsO ₄ + H ₂ O	29.31
Hfo_wOH + AsO ₄ ⁻³ + 2H ⁺ = Hfo_wHAsO ₄ ⁻ + H ₂ O	23.51
Hfo_wOH + AsO ₄ ⁻³ = Hfo_wOHAsO ₄ ⁻³	10.58
Arsenite ^a	
Hfo_wOH + H ₃ AsO ₃ = Hfo_wH ₂ AsO ₃ + H ₂ O	5.41
Organic arsenic species	
Hfo_wOH + As _{org} = Hfo_wOHAs _{org}	Calibrated

^a Surface species defined in (Dzombak and Morel 1990)