

## Supplementary Materials

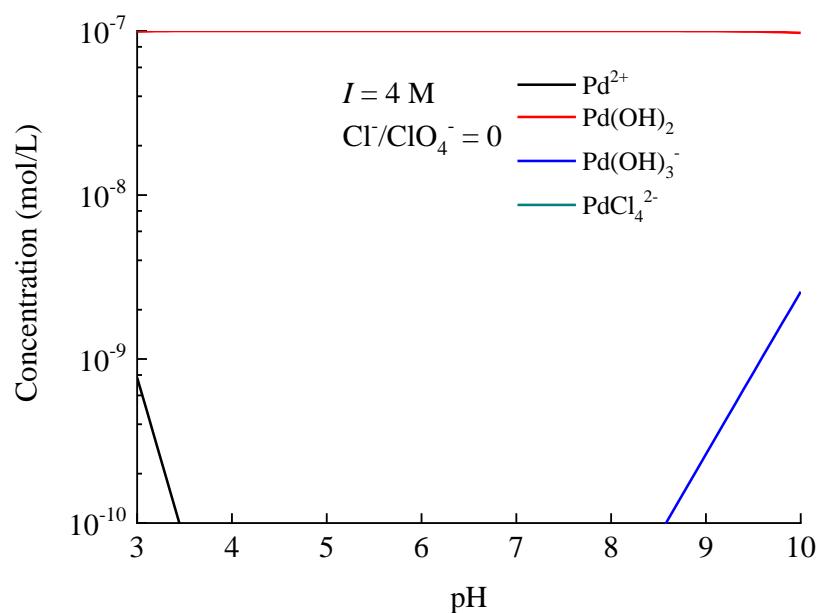


Figure S-1: Pd speciation in Na-Ca-Cl- $\text{ClO}_4$  solution  
( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 0) at  $I = 4 \text{ M}$ .

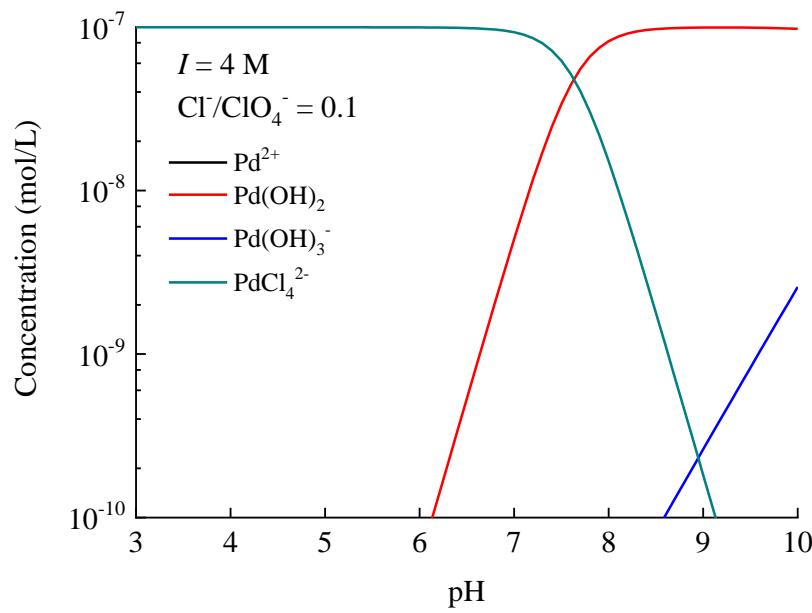
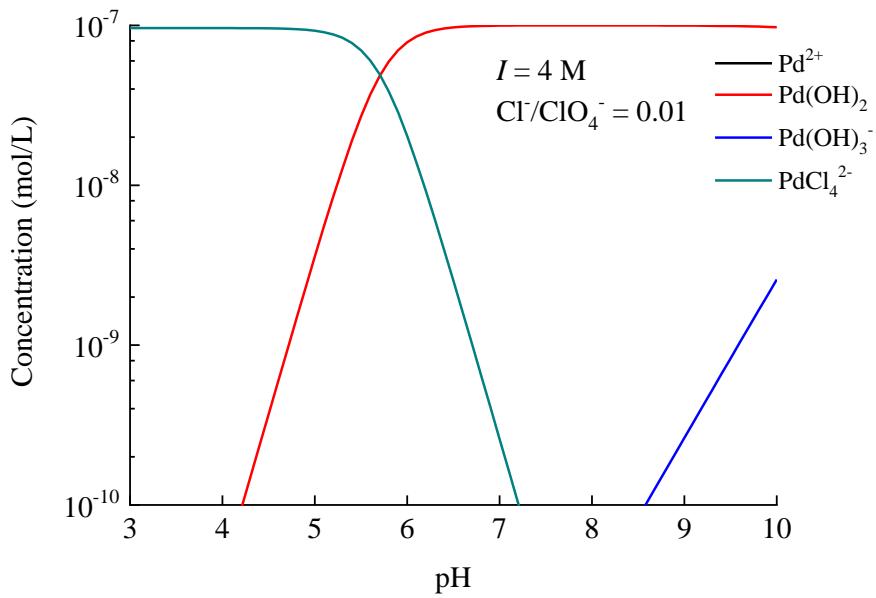


Figure S-3: Pd speciation in Na-Ca-Cl-ClO<sub>4</sub> solution (Cl<sup>-</sup>/ClO<sub>4</sub><sup>-</sup> molar concentration ratio = 0.1) at  $I = 4 \text{ M}$ .

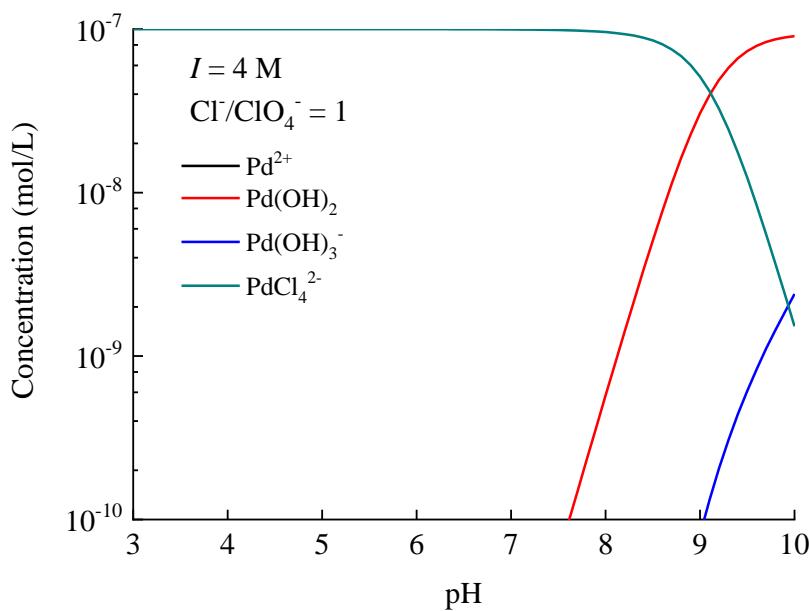


Figure S-4: Pd speciation in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 1) at  $I = 4 \text{ M}$ .

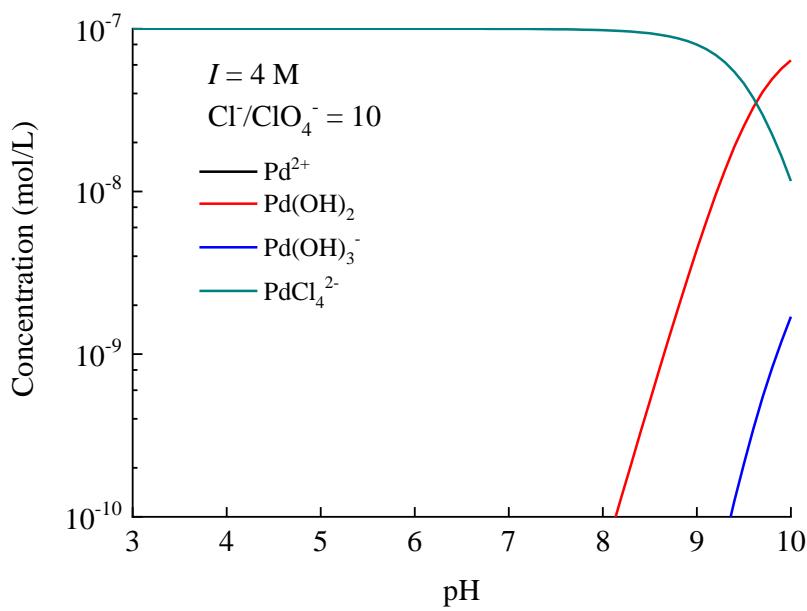


Figure S-5: Pd speciation in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 10) at  $I = 4 \text{ M}$ .

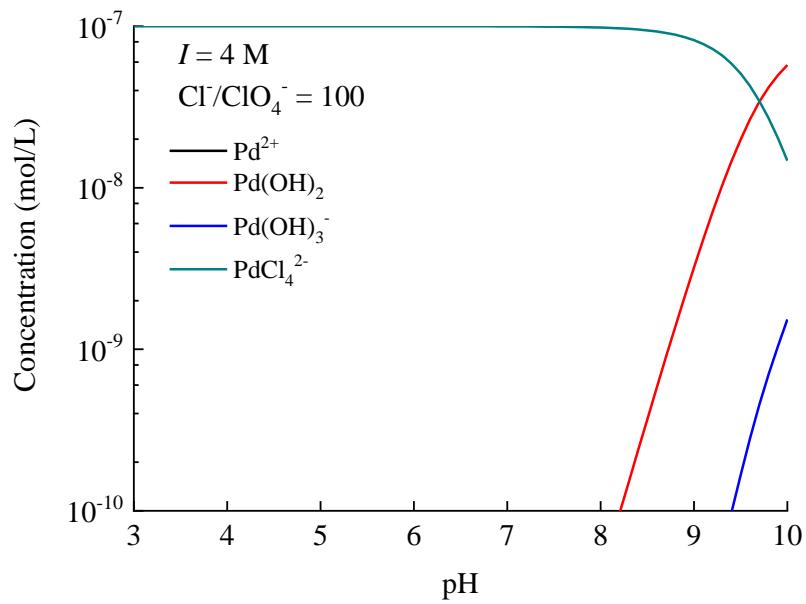


Figure S-6: Pd speciation in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 100) at  $I = 4 \text{ M}$ .

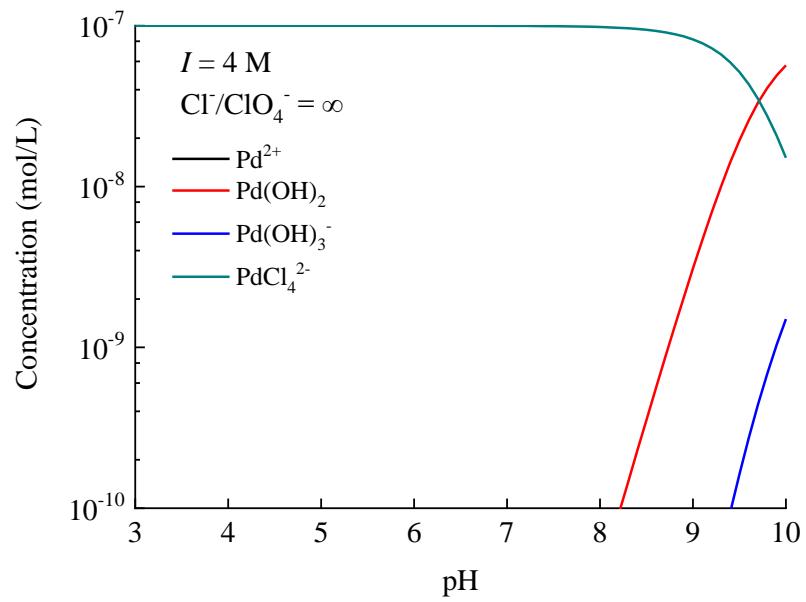


Figure S-7: Pd speciation in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio =  $\infty$ ) at  $I = 4 \text{ M}$ .

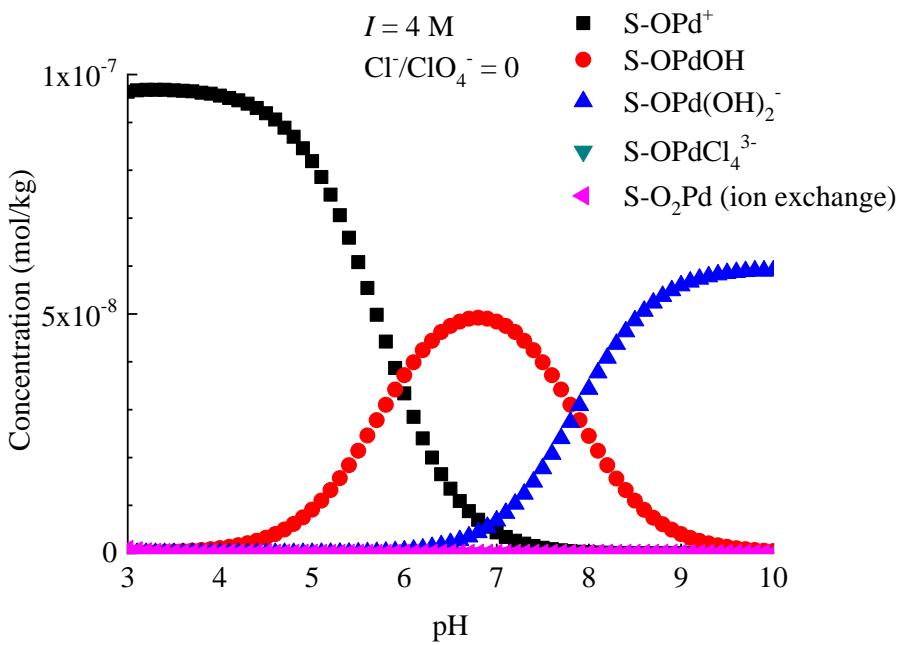


Figure S-8: Pd sorption reaction on MX-80 in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 0) at  $I = 4 \text{ M}$ .

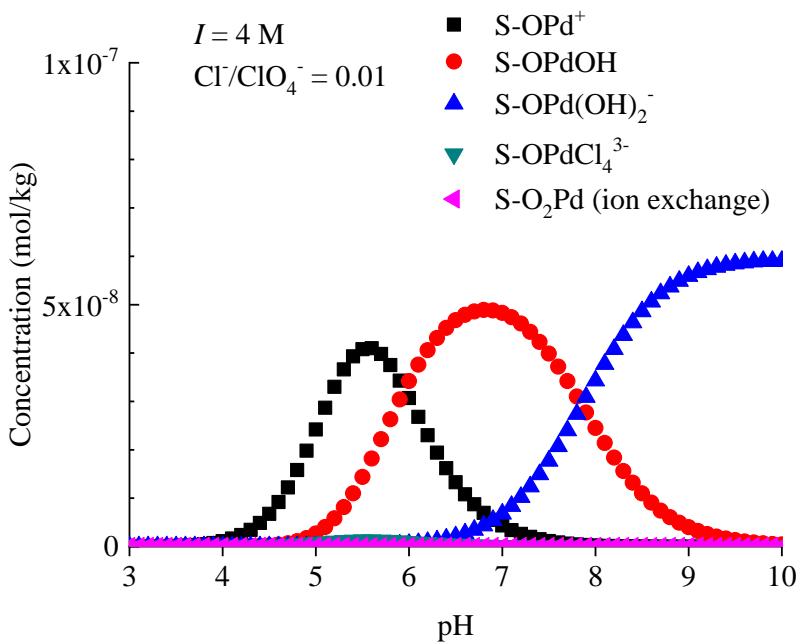


Figure S-9: Pd sorption reaction on MX-80 in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 0.01) at  $I = 4 \text{ M}$ .

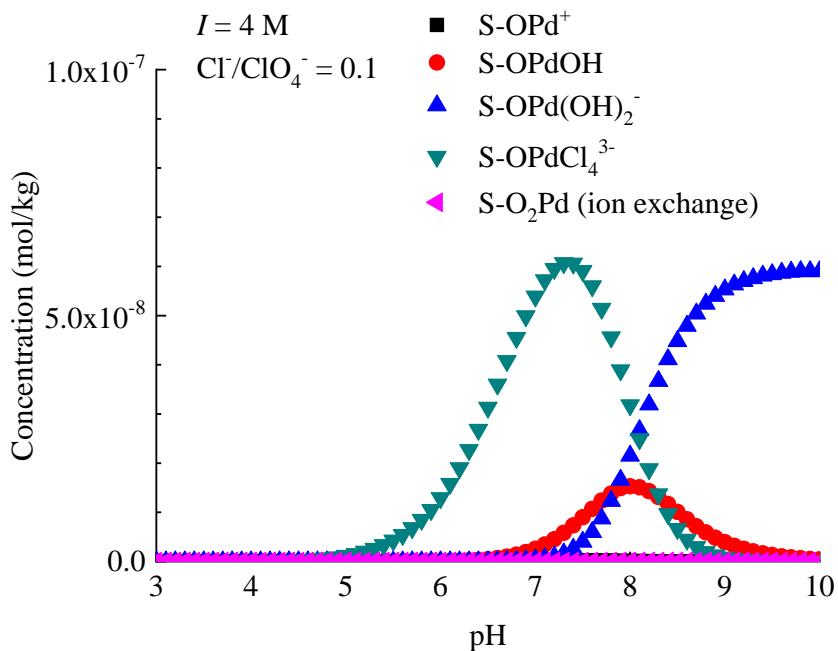


Figure S-10: Pd sorption reaction on MX-80 in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 0.1) at  $I = 4 \text{ M}$ .

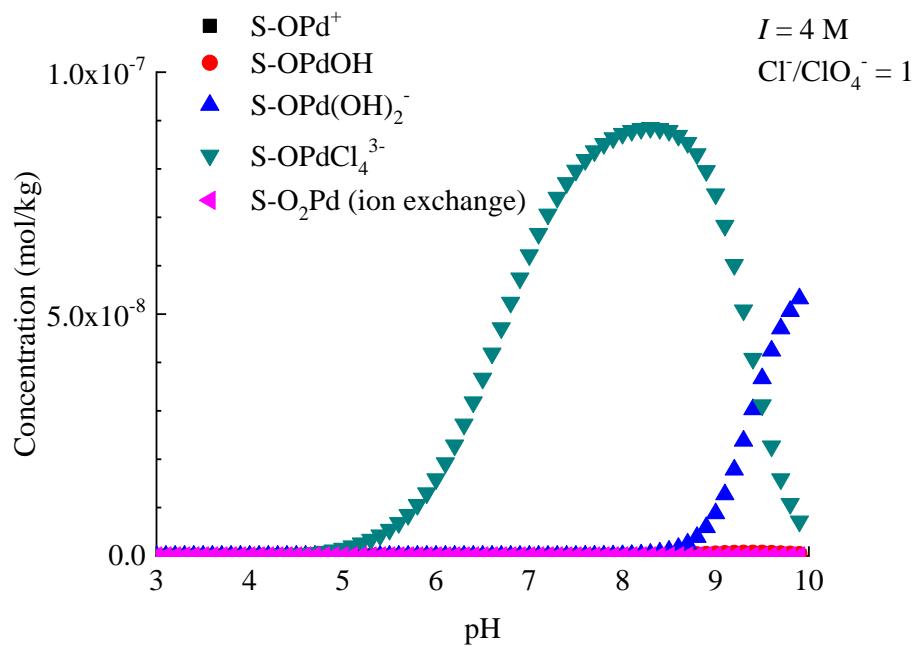


Figure S-11: Pd sorption reaction on MX-80 in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 1) at  $I = 4 \text{ M}$ .

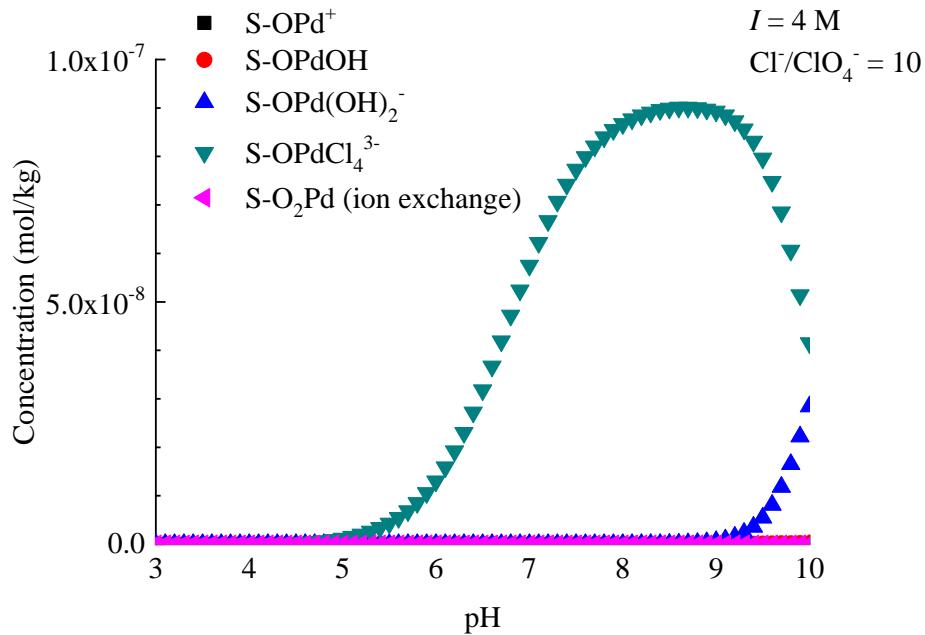


Figure S-12: Pd sorption reaction on MX-80 in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 10) at  $I = 4 \text{ M}$ .

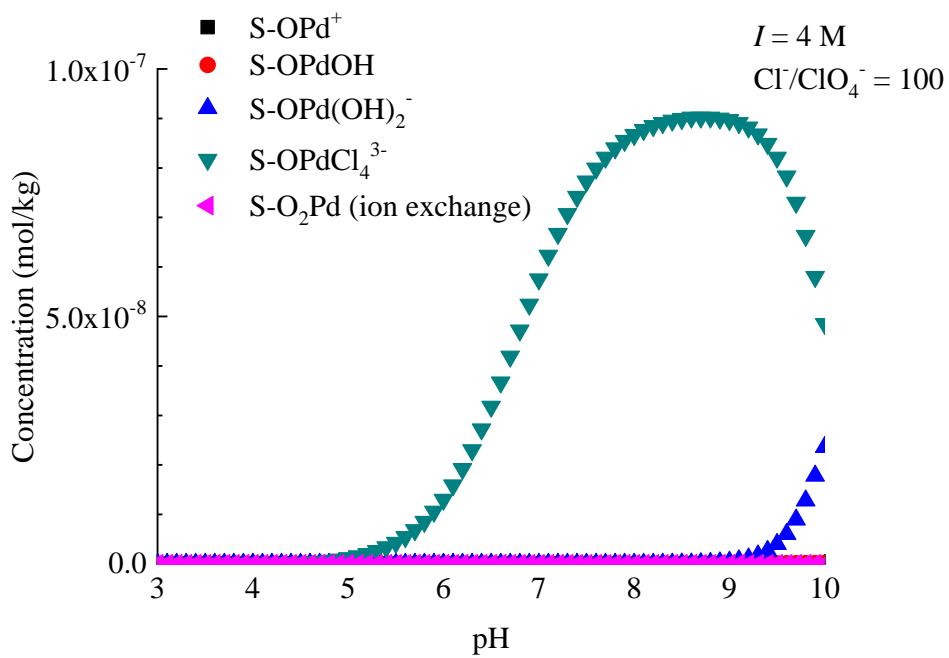


Figure S-13: Pd sorption reaction on MX-80 in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio = 100) at  $I = 4 \text{ M}$ .

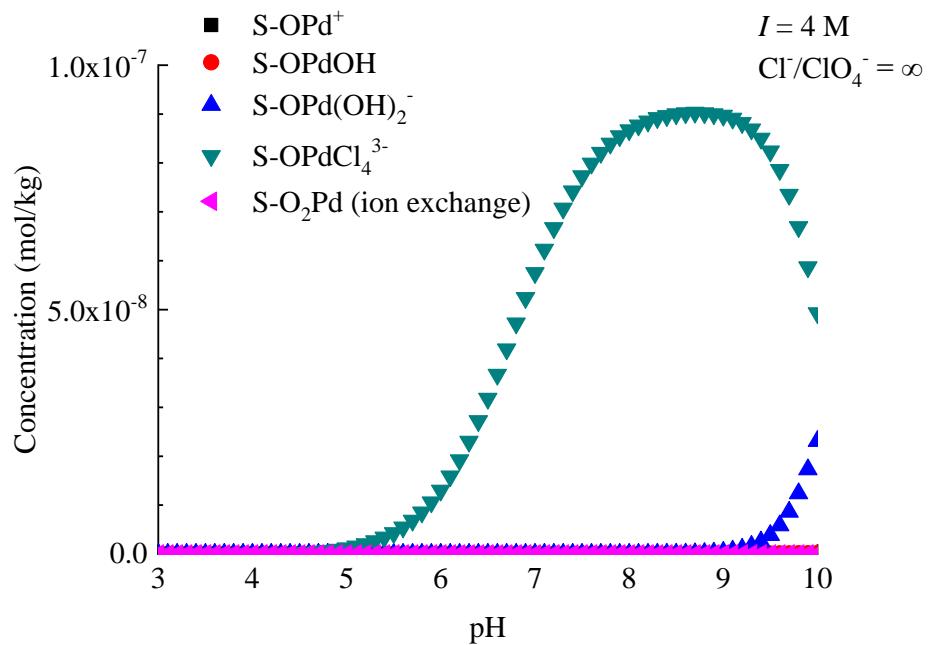


Figure S-14: Pd sorption reaction on MX-80 in Na-Ca-Cl-ClO<sub>4</sub> solution ( $\text{Cl}^-/\text{ClO}_4^-$  molar concentration ratio =  $\infty$ ) at  $I = 4 \text{ M}$ .