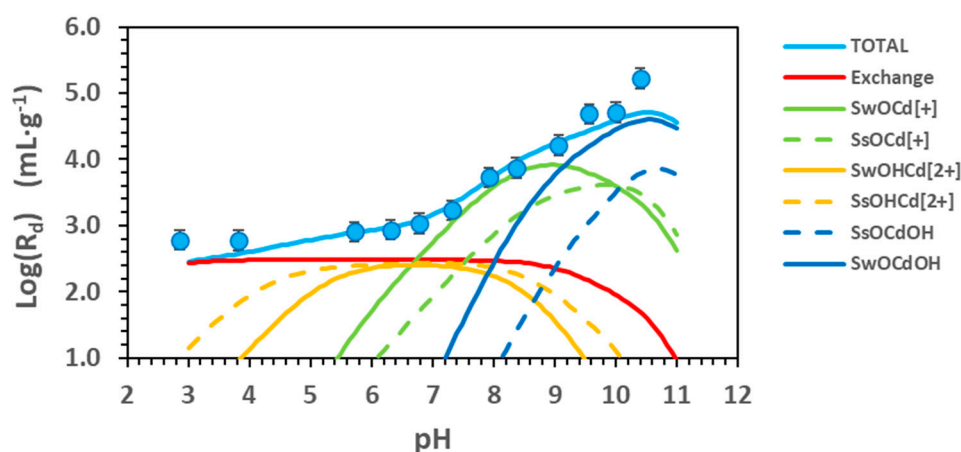


# Supplementary Materials: Analysis of Cadmium Retention Mechanisms by a Smectite Clay in the Presence of Carbonates

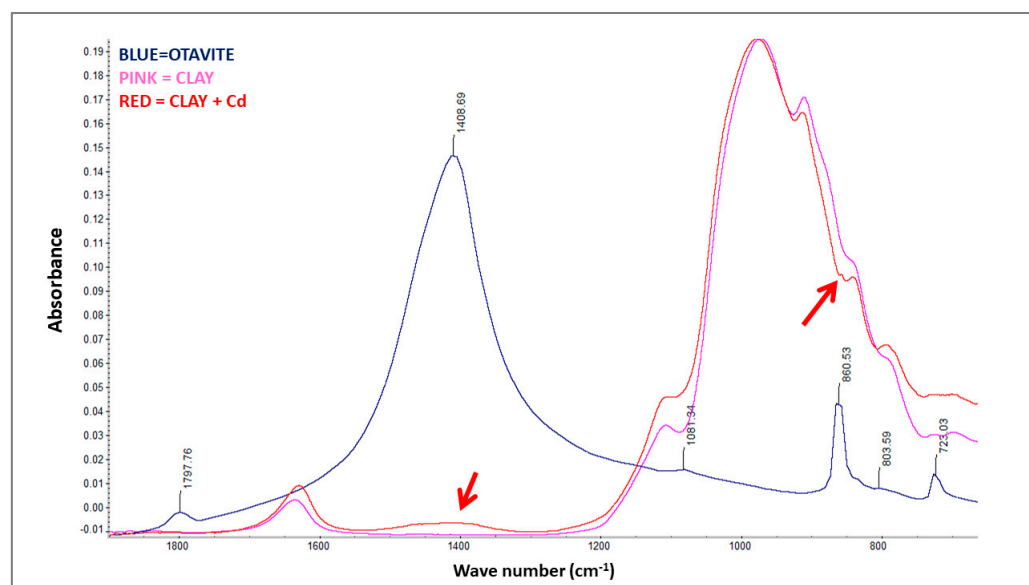
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**Table S1.** Parameters used to simulate each experimental curve, presented in Figure 3 and Figure 4.

TEST	X2Cd	SOwCd[+]	SOsCd[+]	SOwCd[2+]	SOsCd[2+]	SOsCdOH	SOwCdOH
EDGE, 0.1 M Low Cd	3.50	-2.50	-1.40	4.30	6.10	-11.70	-11.90
EDGE, 0.01 M Low Cd	3.70	-2.55	-1.40	4.10	6.10	-11.50	-11.70
EDGE, 0.1 M High Cd	3.30	-2.50	-1.40	4.10	6.10	-11.70	-11.90
IT, 0.1 M pH=7.8	3.60	-2.50	-1.40	4.10	6.10	-11.70	-11.90
IT, 0.1 M pH=5.2	3.40	-2.50	-1.40	4.10	6.10	-11.70	-11.90
MEAN	3.50	-2.51	-1.40	4.14	6.10	-11.66	-11.86
Desvest	0.16	0.02	0.00	0.09	0.00	0.09	0.09



**Figure S1.** Contribution to the final adsorption of the different surface species for the data in Figure 2b.



**Figure S2.** Comparison of the ATR-FTIR spectra of Na-smectite before and after the adsorption of Cd [ $3 \cdot 10^{-3}$  M] at pH=8 in NaClO<sub>4</sub> 0.01 M. The reference spectra of otavite is also included for comparison.