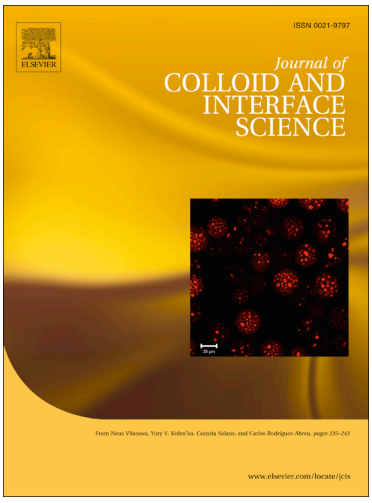


Regular Article

# Surface Complexation Modeling of Calcite Zeta Potential Measurements in Brines with Mixed Potential Determining Ions ($Ca^{2+}$, $CO_3^{2-}$, $Mg^{2+}$, $SO_4^{2-}$) for Characterizing Carbonate Wettability

Jin Song, Yongchao Zeng, Le Wang, Xindi Duan, Maura Puerto, Walter G. Chapman, Sibani L. Biswal, George J. Hirasaki

PII: S0021-9797(17)30761-0
DOI: http://dx.doi.org/10.1016/j.jcis.2017.06.096
Reference: YJCIS 22523

To appear in: *Journal of Colloid and Interface Science*

Received Date: 25 April 2017
Revised Date: 27 June 2017
Accepted Date: 28 June 2017

Please cite this article as: J. Song, Y. Zeng, L. Wang, X. Duan, M. Puerto, W.G. Chapman, S.L. Biswal, G.J. Hirasaki, Surface Complexation Modeling of Calcite Zeta Potential Measurements in Brines with Mixed Potential Determining Ions ($Ca^{2+}$, $CO_3^{2-}$, $Mg^{2+}$, $SO_4^{2-}$) for Characterizing Carbonate Wettability, *Journal of Colloid and Interface Science* (2017), doi: http://dx.doi.org/10.1016/j.jcis.2017.06.096

# Surface Complexation Modeling of Calcite Zeta Potential Measurements in Brines with Mixed Potential Determining Ions ($Ca^{2+}$, $CO_3^{2-}$, $Mg^{2+}$, $SO_4^{2-}$) for Characterizing Carbonate Wettability

*Jin Song*[†], *Yongchao Zeng*[†], *Le Wang*[†], *Xindi Duan*[†], *Maura Puerto*[†], *Walter G. Chapman*[†], *Sibani L. Biswal*[†]*, *and George J. Hirasaki*[†]*

[†]Rice University, 6100 Main St., MS-362, Department of Chemical and Biomolecular Engineering, Houston, TX, 77005 USA.

* To whom correspondence should be addressed:

email: biswal@rice.edu, gjh@rice.edu

telephone: (+1) 650-387-5438

Email addresses: js110@rice.edu (Jin Song), yz42@rice.edu (Yongchao Zeng), lw22@rice.edu (Le Wang), xd6@rice.edu (Xindi Duan), Maura@rice.edu (Maura Puerto), wgchap@rice.edu (Water G. Chapman) , biswal@rice.edu (Sibani L. Biswal), gjh@rice.edu (George J. Hirasaki)