

## Publications

### Selected Publications

- W.H. Mulder, J.J. Calvente, R. Andreu, "A kinetic model for the reductive desorption of self-assembled thiol monolayers." *Langmuir*, 17 (2001), 3273.
- W.H. Mulder, C. Párkányi, "Theory of the salt effect on solvatochromic shifts and its potential application to the determination of ground-state and excited-state dipole moments." *Journal of Physical Chemistry A*, 106 (2002) 11932.
- W.H. Mulder, "The use of size distributions of circular domains in Langmuir monolayers for determining physical parameters of surfactants." *Journal of Colloid and Interface Science*, 264 (2003) 558.
- W.H. Mulder, "Effect of medium relaxation on the acidity constants of electronically excited states obtained by the Förster cycle method." *Journal of Photochemistry and Photobiology A: Chemistry*, 161 (2003), 21.
- K.J. Donald, W.H. Mulder, L. v. Szentpály, "Success and failure of polarized-ion models: Bending and atomization energy of groups 2 and 12 dihalides." *Journal of Chemical Physics*, 119 (2003) 5423.
- W.H. Mulder, J.J. Calvente, R. Andreu, "The electrocapillary effect at an electrode modified with an insoluble redox-active self-assembled monolayer." *Langmuir*, 20 (2004) 869.
- S.M. Antao, W.H. Mulder, I. Hassan, W.A. Crichton, J.B. Parise, "Cation disorder in dolomite,  $\text{CaMg}(\text{CO}_3)_2$ , and its influence on the aragonite + magnesite = dolomite reaction boundary." *American Mineralogist*, 89 (2004) 1142.
- W.H. Mulder, R. Andreu, M. Molero, W.R. Fawcett, "Calculation of ionic surface excess concentrations in the diffuse double layer at low field strengths for a restricted primitive model electrolyte." *J. Electroanal. Chem.*, 575 (2005) 211.
- J.J. Calvente, G. López-Pérez, P. Ramírez, H. Fernández, M.A. Zón, W.H. Mulder, R. Andreu, "Experimental study of the interplay between long-range electron transfer and redox probe permeation at self-assembled monolayers: Evidence for potential-induced ion gating." *Journal of the American Chemical Society*, 127 (2005) 6476.
- W.H. Mulder, "Thermodynamic analysis of some electrochemical properties of transition metal complexes in electronically excited states." *Journal of Photochemistry and Photobiology A: Chemistry*, 187 (2007) 247.
- The  $R3c \rightarrow R3m$  transition in nitratine,  $\text{NaNO}_3$ , and implications for calcite,  $\text{CaCO}_3$ . S.M. Antao, I. Hassan, W.H. Mulder, P.L. Lee, *Physics and Chemistry of Minerals* 35 (2008) 545 - 557.
- In situ study of the  $R3c \rightarrow R3m$  orientational disorder in calcite. S.M. Antao, I. Hassan, W.H. Mulder, P.L. Lee, B.H. Toby, *Physics and Chemistry of Minerals* 36 (2009) 159 - 169.
- On the theory of electrostatic interactions in suspensions of charged colloids. W.H. Mulder, *Soil Science Society of America Journal* 74 (2010) 1 - 4.

Probability distributions of ancestries and genealogical distances on stochastically generated rooted binary trees. W.H. Mulder, *Journal of Theoretical Biology* 280 (2011) 139 - 145.

The effect of orientational disorder of the anion in calcite on the aragonite (Pm $\bar{c}n$ ) calcite (R3c) equilibrium. W.H. Mulder, I. Hassan, *The Canadian Mineralogist* 49 (2011) 1035 - 1043.

Proton transfer voltammetry at electrodes modified with acid thiol monolayers. A.M. Luque, W.H. Mulder, J.J. Calvente, A. Cuesta, R. Andreu, *Analytical Chemistry* 84 (2012) 5778 - 5786.

Analytical expressions for proton transfer voltammetry: Analogy to surface redox voltammetry with Frumkin interactions. J.J. Calvente, A.M. Luque, R. Andreu, W.H. Mulder, J.L. Ollolqui-Sariego, *Analytical Chemistry* 85 (2013) 4475 - 4482.

On the distribution of interspecies correlation for Markov models of character evolution on Yule trees. W.H. Mulder, F.W. Crawford, *Journal of Theoretical Biology* 364 (2015) 275 - 283.

Synthesis and structure of substituted benzothiazolyl-N-pyridinecarbothioamide:

Kinetics of formation and electrochemistry of two of its palladium pincer complexes. M.A.W. Lawrence, Y.A. Jackson, W.H. Mulder, P.M. Björemark, M. Håkansson, *Australian Journal of Chemistry* 68 (2015) 731 - 741.

Proton transfer impedance of electrodes modified with acid thiol monolayers.

A.M. Luque, W.H. Mulder, J.J. Calvente, R. Andreu, *J. Electroanal. Chem.* 819 (2018) 145 - 151.

SNS vs. SNN pincer ligands: Electrochemical studies and their palladium(II)

complexes as electro-catalyst for proton reduction. M.A.W. Lawrence, W.H. Mulder, *ChemistrySelect* 3 (2018) 8378 - 8394.

Insect dynamics in heterogeneous environments and the relevance of retrospective life tables and cyclic budgets: An integrated approach. B.E. Freeman, W.H. Mulder,

*Journal of Entomological Science* 54 (2019) 325 - 344.

Assessment of two cobalt (II) complexes with pincer ligands for the electro-catalytic hydrogen evolution reaction. A comparison of the SNS vs. ONS coordination.

M.A.W. Lawrence, W.H. Mulder, M. Celestine, C. McMillen, A.A. Holder, *Inorganica Chimica Acta* 506 (2020), 119497.

The palaeoecological significance of tubes, ribs, pallial canals and flanges in caprinoid rudist bivalves. S.F. Mitchell, G. Gunter, W.H. Mulder, *Palaeogeography, Palaeoclimatology, Palaeoecology (Palaeo3)* (2021).