



Universiteit  
Leiden  
The Netherlands

## **Imaging complex model catalysts in action: From surface science towards industrial practice using high-pressure scanning tunneling microscopy**

Mom, R.V.

### **Citation**

Mom, R. V. (2017, June 29). *Imaging complex model catalysts in action: From surface science towards industrial practice using high-pressure scanning tunneling microscopy*. Retrieved from <https://hdl.handle.net/1887/51108>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/51108>

**Note:** To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/51108> holds various files of this Leiden University dissertation

**Author:** Mom, R.V.

**Title:** Imaging complex model catalysts in action: From surface science towards industrial practice using high-pressure scanning tunneling microscopy

**Issue Date:** 2017-06-29

# List of publications

## Peer-reviewed publications

1. A. I. Yanson, P. Rodriguez, N. Garcia-Araez, R.V. Mom, F.D. Tichelaar, M.T.M. Koper  
*Cathodic Corrosion: A Quick, Clean, and Versatile Method for the Synthesis of Metallic Nanoparticles*  
Angew. Chem. Int. Ed., **2011**, 50, 6346–6350
2. R.V. Mom, C. Hahn, L. Jacobse, L.B.F. Juurlink  
*LEED Analysis of Nickel Cylindrical Single Crystal*  
Surface Science, **2013**, 613, 15-20
3. R.V. Mom, J. Cheng, M.T.M. Koper, M. Sprik  
*Modeling the Oxygen Evolution Reaction on Metal Oxides: The Influence of Unrestricted DFT Calculations*  
J. Phys. Chem. C, **2014**, 118, 4095-4102
4. R.V. Mom, M.J. Rost, J.W.M. Frenken, I.M.N. Groot  
*Tuning the Properties of Molybdenum Oxide on Al<sub>2</sub>O<sub>3</sub>/NiAl(110): Metal Versus Oxide Deposition*  
J. Phys. Chem. C, **2016**, 120, 19737–19743
5. W.G. Onderwaater, P.C. van der Tuijn, R.V. Mom, M.A. van Spronsen, S.B. Roobol, A. Saedi, J. Drnec, H. Isern, F. Carlà, T. Dufrane, R. Koehler, B. Crama, I.M.N. Groot, R. Felici, J.W.M. Frenken  
*Combined scanning probe microscopy and X-ray scattering instrument for in situ catalysis investigations*  
Rev. Sci. Instr., **2016**, 87, 113705
6. R.V. Mom, W.G. Onderwaater, M.J. Rost, M. Jankowski, S. Wenzel, L. Jacobse, P.F. A. Alkemade, V. Vandalon, M.A. van Spronsen, M. van Weeren, B. Crama, P. van der Tuijn, R. Felici, W.M.M. Kessels, F. Carlà, J.W.M. Frenken, I.M.N. Groot  
*Simultaneous scanning tunneling microscopy and synchrotron X-ray measurements in a gas environment*  
Submitted
7. R.V. Mom, S. Wenzel, M.K. Prabhu, J.W.M. Frenken, I.M.N. Groot  
*The growth and stability of Au surface oxides on WO<sub>3</sub>/Au(111) and ReO<sub>3</sub>/Au(111) inverse model catalysts*  
Submitted

8. R.V. Mom, J. Louwen, J.W.M. Frenken, I.M.N Groot  
*In situ observations of an active MoS<sub>2</sub> model hydrodesulfurization catalyst*  
Submitted
9. R.V. Mom, O. Ivashenko, J.W.M. Frenken, I.M.N. Groot, A.O. Sjøstad  
*The nucleation and thermal stability of Re and Co-Re nanoparticles on Al<sub>2</sub>O<sub>3</sub>/NiAl(110)*  
In preparation
10. R.V. Mom, S.N. Steinmann, S.T. Melissen, J.W.M. Frenken, P. Sautet, I.M.N. Groot  
*The adsorption of CH<sub>3</sub>SH on Au(111) from vacuum to 1 bar*  
In preparation
11. R.V. Mom, J. Vermeer, J.W.M. Frenken, I.M.N. Groot  
*Crystalline Al<sub>2</sub>O<sub>3</sub> on NiAl(110) beyond two-layer thickness*  
In preparation

## Other publications

### R.V. Mom

*Oppervlaktewetenschap onder druk (Surface science under pressure)*  
Review article on high-pressure surface science in the NEVAC-Blad, the journal of the Netherlands Vacuum Society.