

## Publications

### 2005

"Dendritic Phosphonates and the *in situ* Assembly of Polyperoxophosphotungstates: Synthesis and Catalytic Epoxidation with Hydrogen Peroxide" Maxym V. Vasylyev, Didier Astruc and Ronny Neumann, *Advanced Synthesis and Catalysis*, in press.

"Highly Efficient Recycling of a Sandwich Type Polyoxometalate Oxidation Catalyst using Solvent Resistent Nanofiltration." Peter T. Witte, Sankhanilay Roy Chowdury, Johan E. ten Elshof, Dorit Sloboda-Rozner, Ronny Neumann and Paul L. Alsters, *Chemical Communications*, in press.

"Strategies for Oxidation Catalyzed by Polyoxometalates at the Interface of Homogeneous and Heterogeneous Catalysis." Maxym Vasylyev, Dorit Sloboda-Rozner, Adina Haimov, Galia Maayan and Ronny Neumann, *Topic in Catalysis*, accepted for publication.

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"New Heterogeneous Polyoxometalate Based Mesoporous Catalysts for Hydrogen Peroxide Mediated Oxidation Reactions" Maxym V. Vasylyev and Ronny Neumann, *Journal of the American Chemical Society*, **2004**, *126*, 884-890. <http://dx.doi.org/10.1021/ja036702g>

"Aqueous Biphasic Oxidation: A Water Soluble Polyoxometalate Catalyst for Selective Oxidation of Various Functional Groups with Hydrogen Peroxide" Dorit Sloboda-Rozner, Peter Witte, Paul L. Alsters and Ronny Neumann, *Advanced Synthesis and Catalysis*, **2004**, *346*, 339-345. <http://dx.doi.org/10.1002/adsc.200303156>

"Self-Assembled  $\text{Na}_{12}[\text{WZn}_3(\text{ZnW}_9\text{O}_{34})_2]$  as an Industrially Attractive Multi-Purpose Catalyst for Oxidations with Aqueous Hydrogen Peroxide" Peter T. Witte, Paul L. Alsters, Walther Jary, Ruth Müllner, Peter Pöchlauer, Dorit Sloboda-Rozner and Ronny Neumann, *Organic Process Research and Development*, **2004**, *8*, 524-531. <http://dx.doi.org/10.1021/op034184o>

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"Oxidation of Alkylarenes by Nitrate Catalyzed by Polyoxophosphomolybdates: Synthetic Applications and Mechanistic Insights." Alexander M. Khenkin and Ronny Neumann, *Journal of the American Chemical Society*, **2004**, *126*, 6356-6362. <http://dx.doi.org/10.1021/ja031710i>

"Synthesis of Dendritic Polyoxometalate Complexes Assembled by Ionic Bonding and their Function as Recoverable and Re-usable Oxidation Catalysts." Lauriane Plault, Andreas Hauseler, Sylvain Nlate, Didier Astruc, Sylvain Gatard and Ronny Neumann,

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<http://dx.doi.org/10.1002/anie.200453870>

"Computer Generated High Valent Iron-Oxo and Manganese-Oxo Species with Polyoxometalate Ligands – How do they Compare with the Iron-Oxo Active Species of Heme Enzymes?" Samuël P. de Visser, Devesh Kumar, Ronny Neumann and Sason Shaik, *Angewandte Chemie International Edition*, **2004**, *43*, 5661-5665.  
<http://dx.doi.org/10.1002/anie.200453867>

"Mild, Aqueous, Aerobic, Catalytic Oxidation of Methane to Methanol and Acetaldehyde Catalyzed by a Supported Bipyrimidinylplatinum-Polyoxometalate Hybrid Compound." Itsik Bar-Nahum, Alexander M. Khenkin and Ronny Neumann, *Journal of the American Chemical Society*, **2004**, *126*, 10236-10237. <http://dx.doi.org/10.1021/ja0493547>

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"Synthesis, Catalytic activity in Oxidation Reactions, and Recyclability of Stable Polyoxometalate-Centered Dendrimers" Sylvain Nlate, Didier Astruc and Ronny Neumann, *Advanced Synthesis and Catalysis*, **2004**, *346*, 1445-1448.  
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"Liquid Phase Oxidation Reactions Catalyzed by Polyoxometalates" Ronny Neumann in *Modern Oxidation Methods*, J. E. Bäckvall, ed. Wiley-VCH, Weinheim, 2004, 223-251.

## 2003

"Activation of Nitrous Oxide and Selective Oxidation of Alcohols and Alkylarenes Catalyzed by the [PV<sub>2</sub>Mo<sub>10</sub>O<sub>40</sub>]<sup>5-</sup> Polyoxometalate". Revital Ben-Daniel and Ronny Neumann, *Angewandte Chemie International Edition*, **2003**, *42*, 92-95 and *Angewandte Chemie*, **2003**, *115*, 96-99. <http://dx.doi.org/10.1002/anie.200390062>

"A Highly Chemoselective, Diastereoselective and Regioselective Epoxidation of Chiral Allylic Alcohols with Hydrogen Peroxide, Catalyzed by Sandwich-Type Polyoxometalates: Enhancement of Reactivity and Control of Reactivity by the Hydroxy Group through Metal-Alcoholate Bonding" Waldemar Adam, Paul L. Alsters, Ronny Neumann, Chantu R. Saha-Möller, Dorit Sloboda-Rozner and Rui Zhang, *Journal of Organic Chemistry*, **2003**, *68*, 1721-1728. <http://dx.doi.org/10.1021/jo0266386>

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