

## List of Publication 2002 is generated by eDoc

(<http://edoc.mpg.de>)

01 April 2009

- Aslam, M., G. Gopakumar, T. L. Shoba, I. S. Mulla, K. Vijayamohanan, S. K. Kulkarni, J. Urban and W. Vogel:* Formation of Cu and Cu<sub>2</sub>O Nanoparticles by Variation of the Surface Ligand: Preparation, Structure and Insulating-to-Metallic Transition. In: Journal of Colloid and Interface Science **255**, 1, 79-90 (2002).
- Bielanska, E., D. S. Su and M. Najbar:* Structure and Stability of Titania Supported V-O-W Catalysts. In: Polish Journal of Environmental Studies **11**, supplement III, 5-10 (2002).
- Bluhm, H., D. Ogletree, C. S. Fadley, Z. Hussain and M. Salmeron:* The premelting of ice studied with photoelectron spectroscopy. In: Journal of Physics: Condensed Matter **14**, 227-233 (2002).
- Borse, P. H., L. S. Kankate, F. Dassenoy, W. Vogel, J. Urban and S. K. Kulkarni:* Synthesis and Investigations of Rutile Phase Nanoparticles of TiO<sub>2</sub>. In: Journal of Materials Science: Materials in Electronics **13**, 9, 553-559 (2002).
- Cölfen, H., H. Schnablegger, A. Fischer, F. C. Jentoft, G. Weinberg and R. Schlögl:* Particle Growth Kinetics in Zirconium Sulfate Aqueous Solutions Followed by Dynamic Light Scattering and Analytical Ultracentrifugation - Implications for Thin Film Deposition. In: Langmuir **18**, 9, 3500-3509 (2002).
- de Oliveira, K., D. Teschner, L. Oliviero and Z. Paál:* The pattern of methylcyclopentane and n-hexane on Rh/Al<sub>2</sub>O<sub>3</sub> in catalytic runs of various length. In: Reaction Kinetics & Catalysis Letters **75**, 185-191 (2002).
- Dieterle, M. and G. Mestl:* Raman spectroscopy of molybdenum oxides. Part II. Resonance Raman spectroscopic characterization of the molybdenum oxides Mo<sub>4</sub>O<sub>11</sub> and MoO<sub>2</sub>. In: Physical Chemistry Chemical Physics **4**, 5, 822-826 (2002).
- Dieterle, M., G. Weinberg and G. Mestl:* Raman spectroscopy of molybdenum oxides. Part I. Structural characterization of oxygen defects in MoO<sub>3-x</sub> by DR UV/VIS, Raman spectroscopy and X-ray diffraction. In: Physical Chemistry Chemical Physics **4**, 5, 812-821 (2002).
- Geiler, H. D., Karge, H., Wagner, M., Ehlert, A., Daub, E. and K. Messmann:* Detection and analysis of crystal defects in silicon by scanning infrared depolarization and photoluminescence heterodyne techniques. In: Materials Science and Engineering **B91-92**, 46-50 (2002).

*Hävecker, M., A. Knop-Gericke, R. W. Mayer, M. Fait, H. Bluhm and R. Schlögl:* Influence of the geometric structure on the V L<sub>3</sub> near edge X-ray absorption fine structure from vanadium phosphorus oxide catalysts. In: *Journal of Electron Spectroscopy and Related Phenomena* **125**, 2, 79-87 (2002).

*Hävecker, M., A. Knop-Gericke, R. W. Mayer, M. Fait, H. Bluhm and R. Schlögl:* In situ characterisation of vanadium-phosphorus-oxide (VPO) catalysts for n-butane oxidation by applying X-ray absorption spectroscopy. In: *BESSY annual report 2001*. (Eds.) BESSY GmbH. Berliner Elektronenspeicherring-Gesellschaft für Synchrotronstrahlung m.b.H. - BESSY, Berlin (2002) 204-206.

*Hävecker, M., R. W. Mayer, A. Knop-Gericke and R. Schlögl:* Heterogeneous Catalysis: Surface structure in a high pressure environment. In: *BESSY Highlights 2001*. (Eds.) BESSY GmbH. Berliner Elektronenspeicherring-Gesellschaft für Synchrotronstrahlung m.b.H. - BESSY, Berlin (2002) 10-11.

*Hébert, C., M.-G. Willinger, D. S. Su, P. Pongratz, P. Schattschneider and R. Schlögl:* Oxygen K-edge in vanadium oxides: simulations and experiments. In: *European Physical Journal B* **28**, 4, 407-414 (2002).

*Hutchings, G. J., J. A. Lopez-Sanchez, J. K. Bartley, J. M. Webster, A. Burrows, C. J. Kiely, A. F. Carley, C. Rhodes, M. Hävecker, A. Knop-Gericke, R. W. Mayer, R. Schlögl, J. C. Volta and M. Poliakoff:* Amorphous vanadium phosphate catalysts prepared using precipitation with supercritical CO<sub>2</sub> as an antisolvent. In: *Journal of Catalysis* **208**, 197-210 (2002).

*Jentoft, R. E., X. Yang, F. C. Jentoft and T. Ressler:* Zr K-edge EXAFS of Ordered Mesoporous Sulfated Zirconium Oxide Catalysts. In: *Jahresbericht 2002. HASYLAB Annual Report 1*. (Eds.) Krell, U.; Schneider, J. R.; von Zimmermann, M. Hamburger Synchrotronstrahlungslabor HASYLAB at Deutsches Elektronen-Synchrotron DESY, Hamburg (2002) 469-470.

*Karge, H. G. and H. K. Beyer:* Solid-State Ion Exchange in Microporous and Mesoporous Materials. In: *Molecular Sieves - Science and Technology* **3**, 43-201 (2002).

*Katzke, H.:* Stacking disorder in 2H-NbS<sub>2</sub> and its intercalation compounds K<sub>x</sub>(H<sub>2</sub>O)<sub>y</sub>NbS<sub>2</sub>. I. Description and model calculations of stacking faults in the host lattice NbS<sub>2</sub>. In: *Zeitschrift für Kristallographie* **217**, 3, 127-130 (2002).

*Katzke, H.:* Stacking disorder in 2H-NbS<sub>2</sub> and its intercalation compounds K<sub>x</sub>(H<sub>2</sub>O)<sub>y</sub>NbS<sub>2</sub>. II. Stacking disorder in K<sub>x</sub>(H<sub>2</sub>O)<sub>y</sub>NbS<sub>2</sub>. In: *Zeitschrift für Kristallographie* **217**, 4, 149-154 (2002).

*Keller, N., N. Maksimova, V. Roddatis, M. Schur, G. Mestl, Y. V. Butenko, V. L. Kuznetsov and R. Schlögl:* The Catalytic Use of Onion-like Carbon Materials for Styrene Synthesis by Oxidative Dehydrogenation of Ethylbenzene. In: *Angewandte Chemie International Edition* **41**, 11, 1885-1888 (2002).

*Keller, N., N. I. Maksimova, V. V. Roddatis, M. Schur, G. Mestl, Y. V. Butenko, V. L. Kuznetsov and R. Schlögl:* The Catalytic Use of Onion-like Carbon Materials for Styrene Synthesis by Oxidative Dehydrogenation of Ethylbenzene. In: *Angewandte Chemie - International Edition* **41**, 11, 1885-1888 (2002).

*Ketteler, G.:* Strukturbestimmung von sauerstoffdruckabhängigen  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>(0001)-Oberflächenphasen mit dynamischen LEED-Rechnungen. Doktorarbeit, Freie Universität Berlin, Berlin, Germany (2002).

*Ketteler, G.:* Präparation und Charakterisierung von epitaktischen Oxidfilmen für modellkatalytische Untersuchungen. Doktorarbeit, FU Berlin, Fachbereich Biologie, Chemie, Pharmazie, Berlin (2002).

*Ketteler, G. and W. Ranke:* Self-assembled, periodic Fe<sub>3</sub>O<sub>4</sub> nanostructures in ultrathin FeO(111) films on Ru(0001). In: *Physical Review B* **66**, 033405-1-033405-4 (2002).

*Ketteler, G., W. Ranke and R. Schlögl:* Potassium-promoted iron oxide model catalyst films for the dehydrogenation of ethylbenzene: An example for complex model systems. In: *Journal of Catalysis* **212**, 1, 104-111 (2002).

*Klokishner, S., J. Melsheimer, R. Ahmad, F. C. Jentoft, G. Mestl and R. Schlögl:* Influence of the Dehydration Effects on the Optical Spectra of H<sub>4</sub>PVMo<sub>11</sub>O<sub>40</sub> in the Visible and Near Infrared Range: Intra- and Intercenter Optical Transitions in the V-Mo-Cluster. In: *Spectrochimica Acta A: Molecular and Biomolecular Spectroscopy* **58**, 1, 1-15 (2002).

*Kohls, M., M. Bonanni, L. Spanhel, D. S. Su and M. Giersig:* Green Er<sup>III</sup> luminescence in fractal ZnO nanolattices. In: *Applied Physics Letters* **81**, 20, 3858-3860 (2002).

*Kowshik, M., N. Deshmukh, W. Vogel, J. Urban, S. K. Kulkarni and K. M. Paknikar:* Microbial synthesis of semiconductor CdS nanoparticles, their characterization, and their use in the fabrication of an ideal diode. In: *Biotechnology and Bioengineering* **78**, 5, 583-588 (2002).

*Kowshik, M., W. Vogel, J. Urban, S. K. Kulkarni and K. M. Paknikar:* Microbial synthesis of semiconductor PbS nanocrystallites. In: *Advanced Materials* **14**, 11, 815-818 (2002).

*Linke, D., D. Wolf, M. Baerns, O. Timpe, R. Schlögl, S. Zeys and U. Dingerdissen:* Catalytic partial oxidation of ethane to acetic acid over  $\text{Mo}_1\text{V}_{0.25}\text{Nb}_{0.12}\text{Pd}_{0.0005}\text{O}_x$ . I. Catalyst performance and reaction mechanism. In: *Journal of Catalysis* **205**, 1, 16-31 (2002).

*Lopez-Sanchez, J. A., J. K. Bartley, A. Burrows, C. J. Kiely, M. Hävecker, R. Schlögl, J. C. Volta, M. Poliakoff and G. J. Hutchings:* Effects of cobalt additive on amorphous vanadium phosphate catalysts prepared using precipitation with supercritical  $\text{CO}_2$  as an antisolvent. In: *New Journal of Chemistry* **26**, 12, 1811-1816 (2002).

*Mahmoud, S. S., A. Y. Hammoudeh, S. Gharaibeh and J. Melsheimer:* Hydrogenation of cinnamaldehyde over sol-gel Pd/SiO<sub>2</sub> catalysts: kinetic aspects and modification of catalytic properties by Sn, Ir and Cu additives. In: *Journal of Molecular Catalysis A* **178**, 161-167 (2002).

*Mayer, R. W., M. Hävecker, H. Bluhm, A. Knop-Gericke, M. Melzer, J. Urban and R. Schlögl:* The ammonia oxidation over copper: First experiments with copper clusters investigated by means of in situ NEXAFS. In: *BESSY annual report 2001*. (Eds.) BESSY GmbH. Berliner Elektronenspeicherring-Gesellschaft für Synchrotronstrahlung m.b.H. (BESSY), Berlin (2002) 196-198.

*Melsheimer, J., J. Kröhnert, R. Ahmad, S. Klokishner, F. C. Jentoft, G. Mestl and R. Schlögl:* UV/Vis/near-IR spectroscopic characteristics of  $\text{H}_{4-x}\text{Cs}_x\text{PVMo}_{11}\text{O}_{40}$  ( $x=0,2$ ) catalyst under different temperatures and gas atmospheres. In: *Physical Chemistry Chemical Physics* **4**, 11, 2398-2408 (2002).

*Melzer, M., J. Urban, H. Sack-Kongehl, K. Weiss, H.-J. Freund and R. Schlögl:* Preparation of Vanadium and Vanadium Oxide Clusters by Means of Inert Gas Aggregation. In: *Catalysis Letters* **81**, 3-4, 219-221 (2002).

*Mestl, G.:* In situ Raman spectroscopy for the characterization of MoVW mixed oxide catalysts. In: *Journal of Raman Spectroscopy* **33**, 5, 333-347 (2002).

*Mualin, O., E. E. Vogel, M. A. de Orúe, L. Martinelli, G. Bevilacqua and H.-J. Schulz:* Two-Mode Jahn-Teller Effect in the Absorption Spectra of  $\text{Fe}_{2+}$  in II-VI and III-V Semiconductors. In: *Physical Review B* **65**, 035211-1-035211-9 (2002).

*Navez, D., G. Weinberg, G. Mestl, P. Ruiz and E. M. Gaigneaux:* Influence of the Precursor (Nature and Amount) on the Morphology of MoO<sub>3</sub> Crystallites Supported on Silica. In: *Scientific Bases for the Preparation of Heterogeneous Catalysts*. (Eds.) Gaigneaux, E.; De Vos, D. E.; Grange, P.; Jacobs, P. A.; Martens, J. A.; Ruiz, P.; Poncelet, G. *Studies in Surface Science and Catalysis* **143**. Elsevier Science BV, Amsterdam (2002) 609-617.

*Niemeyer, D., D. E. Williams, P. Smith, K. Pratt, B. Slater, R. Catlow and M. Stoneham:* Experimental and computational study of the gas-sensor behaviour and surface chemistry of  $\text{Cr}_{2-x}\text{Ti}_x\text{O}_3$ . In: *Journal of Materials Chemistry* **12**, 667-675 (2002).

*Ogletree, D., H. Bluhm, G. Lebedev, C. S. Fadley, Z. Hussain and M. Salmeron:* A differentially pumped electrostatic lens system for photoemission studies in the millibar range. In: *Review of Scientific Instruments* **73**, 3872-3877 (2002).

*Ovsitser, O., Y. Uchida, G. Mestl, G. Weinberg, A. Blume, J. Jäger, M. Dieterle, H. Hibst and R. Schlögl:* Molybdenum Oxide Based Partial Oxidation Catalyst: 3. Structural Changes of a MoVW Mixed Oxide Catalyst during Activation and Relation to Catalytic Performance in Acrolein Oxidation. In: *Journal of Molecular Catalysis A - Chemical* **185**, 1-2, 291-303 (2002).

*Pham-Huu, C., N. Keller, V. V. Roddatis, G. Mestl, R. Schlögl and M. J. Ledoux:* Large scale synthesis of carbon nanofibers by catalytic decomposition of ethane on nickel nanoclusters decorating carbon nanotubes. In: *Physical Chemistry Chemical Physics* **4**, 3, 514-521 (2002).

*Ranke, W. and Y. Joseph:* Determination of adsorption energies and kinetic parameters by isosteric methods. In: *Physical Chemistry Chemical Physics* **4**, 2483-2498 (2002).

*Raymundo-Pinero, E., D. Cazorla-Amoros, A. Linares-Solano, J. Find, U. Wild and R. Schlögl:* Structural characterization of N-containing activated carbon fibers prepared from a low softening point petroleum pitch and a melamine resin. In: *Carbon* **40**, 4, 597-608 (2002).

*Ressler, T.:* Reply to "Kinetics and Mechanism of  $\text{MoO}_3$  Reduction. Comments on 'In situ XAS and XRD Studies on the Formation of Mo Suboxides during Reduction of  $\text{MoO}_3$ '". In: *Journal of Physical Chemistry B* **106**, 7719-7720 (2002).

*Ressler, T., F. Girgsdies and R. Schlögl:* MPG-Verbundprojekt: Nanochemie für eine zukünftige Automobiltechnik. In: *Journal Arbeit* **2**, 1, 45-45 (2002).

*Ressler, T., R. E. Jentoft, J. Wienold and F. Girgsdies:* Characteristic Defects in the Bulk Structure of a  $\text{MoO}_3$  Partial Oxidation Catalyst. In: *Jahresbericht 2002, Annual Report 1*. (Eds.) U. Krell, J. R. Schneider, M. von Zimmermann. Hamburger Synchrotronstrahlungslabor HASYLAB at Deutsches Elektronen-Synchrotron DESY, Hamburg (2002) 209-210.

*Ressler, T., J. Wienold, R. E. Jentoft and F. Girgsdies:* Implications of Defects in the Bulk Structure of  $\text{MoO}_3$  for the Oxidation of Propene. In: *Zeitschrift für Anorganische und Allgemeine Chemie* **628**, 2144-2144 (2002).

*Ressler, T., J. Wienold, R. E. Jentoft and T. Neisius:* Bulk structural investigation of the reduction of MoO<sub>3</sub> with propene and the oxidation of MoO<sub>2</sub> with oxygen. In: Journal of Catalysis **210**, 67-83 (2002).

*Ressler, T., J. Wienold, R. E. Jentoft, T. Neisius and M. M. Günther:* Kinetics of solid-state reactions in heterogeneous catalysis from time-resolved X-ray absorption spectroscopy. In: Topics in Catalysis **18**, 1-2, 45-52 (2002).

*Roddatis, V. V., V. L. Kuznetsov, Y. V. Butenko, D. S. Su and R. Schlögl:* Transformation of diamond nanoparticles into carbon onions under electron irradiation. In: Physical Chemistry Chemical Physics **4 (10)**, 1964-1967 (2002).

*Roddatis, V. V., D. S. Su, E. Beckmann, F. C. Jentoft, U. Braun, J. Kröhnert and R. Schlögl:* The structure of thin zirconia films obtained by self-assembled monolayer mediated deposition: TEM and HREM study. In: Surface & Coatings Technology **151-152**, 63-66 (2002).

*Roddatis, V. V., D. S. Su, F. C. Jentoft and R. Schlögl:* Temperature- and electron-beam-induced crystallization of zirconia thin films deposited from an aqueous medium: a transmission electron microscopy study. In: Philosophical Magazine A **82**, 15, 2825-2839 (2002).

*Savinova, E. R., A. Scheybal, M. Danckwerts, U. Wild, B. Pettinger, K. Doblhofer, R. Schlögl and G. Ertl:* Structure and dynamics of the interface between a Ag single crystal electrode and an aqueous electrolyte. In: Faraday Discussion **121**, 181-198 (2002).

*Savinova, E. R., A. Scheybal, M. Danckwerts, U. Wild, B. Pettinger, K. Doblhofer, R. Schlögl and G. Ertl:* Structure and dynamics of the interface between a Ag single crystal electrode and an aqueous electrolyte. In: Faraday Discussion **121**, 181-198 (2002).

*Scheybal, A.:* Adsorption und Oberflächenoxidbildung auf der Ag(111)-Elektrode in alkalischen Elektrolyten. Doktorarbeit, Technische Universität Berlin, Berlin (2002).

*Schlögl, R.:* Aktueller Forschungsschwerpunkt: Wie funktioniert ein heterogener Katalysator? In: Jahrbuch der Max-Planck-Gesellschaft. (Eds.) Max-Planck-Gesellschaft zur Förderung der Wissenschaften. Verlag Vandenhoeck & Ruprecht, München (2002) 468-479.

*Schlögl, R.:* Changing the structures of research - the perspective of an active scientist. In: Innovative Structures in Basic Research: Ringberg-Symposium, 4.-7. October 2000. (Eds.) Max-Planck-Gesellschaft. Max-Planck-Forum **5**. (2002) 161-171.

*Schur, M. and W. Bensch:* The Structure directing effect of hydrogen bonding in the novel polymeric thioantimonate  $Mn_2(H_2N(CH_2)_2NH_2)_2Sb_2S_5$ . In: Zeitschrift für Naturforschung **57 b** (1), 1-7 (2002).

*Su, D. S.:* Electron beam induced changes in transition metal oxides. In: Analytical and Bioanalytical Chemistry **374**, 4, 732-734 (2002).

*Su, D. S. and R. Schlögl:* Thermal decomposition of divanadium pentoxide  $V_2O_5$ : towards a nanocrystalline  $V_2O_3$  phase. In: Catalysis Letters **83**, 115-119 (2002).

*Szizybalski, A., F. Girgsdies, T. Ressler, J. H. Schattka, Y. Wang and R. A. Caruso:* Cu/ZrO<sub>2</sub> catalysts for methanol steam reforming. In: Jahresbericht 2002, HASYLAB Annual Report 1. (Eds.) Krell, U.; Schneider, J. R.; von Zimmermann, M. Hamburger Synchrotronstrahlungslabor HASYLAB at Deutsches Elektronen-Synchrotron DESY, Hamburg (2002) 225-226.

*Teschner, D., D. Duprez and Z. Paál:* Reactivity of the hydrocarbon C-C bonds as a function of the reaction conditions in the conversion of C-6 alkanes and methylcyclopentane over Rh catalysts. In: Journal of Molecular Catalysis A **179**, 201-212 (2002).

*Thiede, M. and J. Melsheimer:* In situ UV/Vis/near-IR diffuse reflection measurement of catalysts at temperatures up to 673 K. In: Review of Scientific Instruments **73**, 2, 394-397 (2002).

*Uchida, Y., G. Mestl, O. Ovsitser, J. Jäger, A. Blume and R. Schlögl:* Molybdenum Oxide Based Partial Oxidation Catalyst: 4. TEM Identification of a New Oxygen-Reduced Phase Formed During Acrolein Partial Oxidation under Reducing Conditions. In: Journal of Molecular Catalysis A - Chemical **187**, 2, 247-257 (2002).

*Vinogradov, A., A. B. Preobrajenski, S. A. Krasnikov, T. Chassé, R. Szargan, A. Knop-Gericke, R. Schlögl and P. Bressler:* X-ray absorption evidence for the back-donation in iron cyanide complexes. In: Surface Review and Letters **9**, 359-365 (2002).

*Weiss, W. and W. Ranke:* Surface chemistry and catalysis on well-defined epitaxial iron-oxide layers. In: Progress in Surface Science **70**, 1-3, 1-151 (2002).

*Wienold, J., O. Timpe, R. E. Jentoft and T. Ressler:* Bulk Structural Evolution of Heteropoly Acids under Reaction Conditions by in situ XAS and XRD. In: Jahresbericht 2002, HASYLAB Annual Report 1. (Eds.) U. Krell, J. R. Schneider, M. von Zimmermann. Hamburger Synchrotronstrahlungslabor HASYLAB at Deutsches Elektronen-Synchrotron DESY, Hamburg, Seq. No.: 1 (2002) 205-206.

*Wieske, M., D. S. Su, E. Beckmann and R. Schlögl:* Electron-beam-induced structural variations of divanadium pentoxide ( $V_2O_5$ ) at liquid helium temperature. In: *Catalysis Letters* **81**, 1, 43-47 (2002).

*Wölk, H.-J., B. Hoffmann, G. Mestl and R. Schlögl:* Experimental archaeology: Investigation on the copper-aluminum- silicon-oxygen system. In: *Journal of the American Ceramic Society* **85**, 7, 1876-1878 (2002).

*Yang, X., F. C. Jentoft, R. E. Jentoft, F. Girgsdies and T. Ressler:* Sulfated Zirconia with Ordered Mesopores as an Active Catalyst for n-Butane Isomerization. In: *Catalysis Letters* **81**, 1-2, 25-31 (2002).

*Zemlin, J. and F. Zemlin:* Diffractogram tableaux by mouse click. In: *Ultramicroscopy* **93**, 1, 77-82 (2002).

<http://edoc.mpg.de>

The Max Planck Society does not take any responsibility for the content of this export.