



## Anders R. Nilsson

Professor of Photon Science, Emeritus  
SLAC General Program

### Bio

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#### BIO

Anders Nilsson interests covers the application of synchrotron radiation to studies of surfaces and in liquids with a focus on studies catalytic processes in fuel cells, photoelectrochemical decomposition of water, CO<sub>2</sub> reduction, chemical bonding on surfaces, structure of liquid water and aqueous solutions, interfacial processes of relevance to molecular environmental science and ultrafast processes on surfaces and in water.

#### ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, SLAC General Program

#### HONORS AND AWARDS

- The Liljevalles Award for Young Scientist, Uppsala University (1988)
- Ångström Award for Outstanding PhD thesis, Uppsala University (1990)
- The Lindbomska Award for Outstanding PhD thesis, Royal Academy of Science, Stockholm, Sweden (1991)
- The Royal Oscars Award for Important Contributions in Science, Uppsala University (1994)
- The Shirley Award for Excellent Research using Soft X-rays, Lawrence Berkeley National Laboratory (1998)
- Fellow of the Institute of Physics, London, UK (2004)
- Special Award on the article on water as one of the top 10 breakthroughs of the year, Foundation for Strategic Research in Sweden (2005)
- Humboldt Senior Research Award, Alexander von Humboldt-Stiftung/Foundation, Germany (2009)

#### LINKS

- The Nilsson Research Group: <http://ssrl.slac.stanford.edu/nilsongroup/>

### Publications

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#### PUBLICATIONS

- **On the chemical state of Co oxide electrocatalysts during alkaline water splitting.** *Physical chemistry chemical physics*  
Friebel, D., Bajdich, M., Yeo, B. S., Louie, M. W., Miller, D. J., Sanchez Casalongue, H., Mbuga, F., Weng, T., Nordlund, D., Sokaras, D., Alonso-Mori, R., Bell, A. T., Nilsson, et al  
2013; 15 (40): 17460-17467
- **On the chemical state of Co oxide electrocatalysts during alkaline water splitting.** *Physical chemistry chemical physics*  
Friebel, D., Bajdich, M., Yeo, B. S., Louie, M. W., Miller, D. J., Sanchez Casalongue, H., Mbuga, F., Weng, T., Nordlund, D., Sokaras, D., Alonso-Mori, R., Bell, A. T., Nilsson, et al  
2013; 15 (40): 17460-17467

- **Interlayer Carbon Bond Formation Induced by Hydrogen Adsorption in Few-Layer Supported Graphene** *PHYSICAL REVIEW LETTERS*  
Rajasekaran, S., Abild-Pedersen, F., Ogasawara, H., Nilsson, A., Kaya, S.  
2013; 111 (8)
- **Stability of Pt-Modified Cu(111) in the Presence of Oxygen and Its Implication on the Overall Electronic Structure** *JOURNAL OF PHYSICAL CHEMISTRY C*  
Ober, H., Anniyev, T., Vojvodic, A., Kaya, S., Ogasawara, H., Friebel, D., Miller, D. J., Nordlund, D., Bergmann, U., Ljungberg, M. P., Abild-Pedersen, F., Nilsson, A., Pettersson, et al  
2013; 117 (32): 16371-16380
- **Unique water-water coordination tailored by a metal surface** *JOURNAL OF CHEMICAL PHYSICS*  
Schiros, T., Andersson, K. J., MacNaughton, J., Gladh, J., Matsuda, A., Ostrom, H., Takahashi, O., Pettersson, L. G., Nilsson, A., Ogasawara, H.  
2013; 138 (23)
- **Resonant inelastic X-ray scattering of liquid water** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Nilsson, A., Tokushima, T., Horikawa, Y., Harada, Y., Ljungberg, M. P., Shin, S., Pettersson, L. G.  
2013; 188: 84-100
- **Identification of the electronic structure differences between polar isostructural FeO and CoO films by core-level soft x-ray spectroscopy** *PHYSICAL REVIEW B*  
Kaya, S., Anniyev, T., Ogasawara, H., Nilsson, A.  
2013; 87 (20)
- **Selective Ultrafast Probing of Transient Hot Chemisorbed and Precursor States of CO on Ru(0001)** *PHYSICAL REVIEW LETTERS*  
Beye, M., Anniyev, T., Coffee, R., Dell'Angela, M., Foehlich, A., Gladh, J., Katayama, T., Kaya, S., Krupin, O., Mogelhoj, A., Nilsson, A., Nordlund, D., Norskov, et al  
2013; 110 (18)
- **Ambient-pressure photoelectron spectroscopy for heterogeneous catalysis and electrochemistry** *Conference on Oprando IV - Recent Developments and Future Perspectives in Spectroscopy of Working Catalysts*  
Kaya, S., Ogasawara, H., Naeslund, L., Forsell, J., Casalongue, H. S., Miller, D. J., Nilsson, A.  
ELSEVIER SCIENCE BV.2013: 101-105
- **Solvation structures of protons and hydroxide ions in water.** *journal of chemical physics*  
Chen, C., Huang, C., Waluyo, I., Nordlund, D., Weng, T., Sokaras, D., Weiss, T., Bergmann, U., Pettersson, L. G., Nilsson, A.  
2013; 138 (15): 154506-?
- **Comment on "Using Photoelectron Spectroscopy and Quantum Mechanics to Determine d-Band Energies of Metals for Catalytic Applications"** *JOURNAL OF PHYSICAL CHEMISTRY C*  
Abild-Pedersen, F., Nilsson, A., Norskov, J. K.  
2013; 117 (13): 6914-6915
- **Ultrafast soft X-ray emission spectroscopy of surface adsorbates using an X-ray free electron laser** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Katayama, T., Anniyev, T., Beye, M., Coffee, R., Dell'Angela, M., Foehlich, A., Gladh, J., Kaya, S., Krupin, O., Nilsson, A., Nordlund, D., Schlotter, W. F., Sellberg, et al  
2013; 187: 9-14
- **Real-Time Observation of Surface Bond Breaking with an X-ray Laser** *SCIENCE*  
Dell'Angela, M., Anniyev, T., Beye, M., Coffee, R., Foehlich, A., Gladh, J., Katayama, T., Kaya, S., Krupin, O., LaRue, J., Mogelhoj, A., Nordlund, D., Norskov, et al  
2013; 339 (6125): 1302-1305
- **Real-time observation of surface bond breaking with an x-ray laser.** *Science*  
Dell'Angela, M., Anniyev, T., Beye, M., Coffee, R., Föhlich, A., Gladh, J., Katayama, T., Kaya, S., Krupin, O., LaRue, J., Møgelhøj, A., Nordlund, D., Nørskov, et al  
2013; 339 (6125): 1302-1305
- **Benchmark oxygen-oxygen pair-distribution function of ambient water from x-ray diffraction measurements with a wide Q-range** *JOURNAL OF CHEMICAL PHYSICS*  
Skinner, L. B., Huang, C., Schlesinger, D., Pettersson, L. G., Nilsson, A., Benmore, C. J.

2013; 138 (7)

- **X-ray Photoemission and Density Functional Theory Study of the Interaction of Water Vapor with the Fe<sub>3</sub>O<sub>4</sub>(001) Surface at Near-Ambient Conditions** *JOURNAL OF PHYSICAL CHEMISTRY C*  
Kendelewicz, T., Kaya, S., Newberg, J. T., Bluhm, H., Mulakaluri, N., Moritz, W., Scheffler, M., Nilsson, A., Pentcheva, R., Brown, G. E.  
2013; 117 (6): 2719-2733
- **Highly Compressed Two-Dimensional Form of Water at Ambient Conditions** *SCIENTIFIC REPORTS*  
Kaya, S., Schlesinger, D., Yamamoto, S., Newberg, J. T., Bluhm, H., Ogasawara, H., Kendelewicz, T., Brown, G. E., Pettersson, L. G., Nilsson, A.  
2013; 3
- **The Electronic States of Rhenium Bipyridyl Electrocatalysts for CO<sub>2</sub> Reduction as Revealed by X-ray Absorption Spectroscopy and Computational Quantum Chemistry** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Benson, E. E., Sampson, M. D., Grice, K. A., Smieja, J. M., Froehlich, J. D., Friebel, D., Keith, J. A., Carter, E. A., Nilsson, A., Kubiak, C. P.  
2013; 52 (18): 4841-4844
- **Fluctuations in ambient water** *Annual Meeting of the European-Molecular-Liquids-Group (EMLG)/Japanese-Molecular-Liquids-Group (JMLG)*  
Nilsson, A., Huang, C., Pettersson, L. G.  
ELSEVIER SCIENCE BV.2012: 2-16
- **Electrochemical Oxidation of Size-Selected Pt Nanoparticles Studied Using in Situ High-Energy-Resolution X-ray Absorption Spectroscopy** *ACS CATALYSIS*  
Merte, L. R., Behafarid, F., Miller, D. J., Friebel, D., Cho, S., Mbuga, F., Sokaras, D., Alonso-Mori, R., Weng, T., Nordlund, D., Nilsson, A., Cuenya, B. R.  
2012; 2 (11): 2371-2376
- **Reversible graphene-metal contact through hydrogenation** *PHYSICAL REVIEW B*  
Rajasekaran, S., Kaya, S., Abild-Pedersen, F., Anniyev, T., Yang, F., Stacchiola, D., Ogasawara, H., Nilsson, A.  
2012; 86 (7)
- **Balance of Nanostructure and Bimetallic Interactions in Pt Model Fuel Cell Catalysts: In Situ XAS and DFT Study** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Friebel, D., Viswanathan, V., Miller, D. J., Anniyev, T., Ogasawara, H., Larsen, A. H., O'Grady, C. P., Norskov, J. K., Nilsson, A.  
2012; 134 (23): 9664-9671
- **The soft x-ray instrument for materials studies at the linac coherent light source x-ray free-electron laser** *REVIEW OF SCIENTIFIC INSTRUMENTS*  
Schlotter, W. F., Turner, J. J., Rowen, M., Heimann, P., Holmes, M., Krupin, O., Messerschmidt, M., Moeller, S., Krzywinski, J., Soufli, R., Fernandez-Perea, M., Kelez, N., Lee, et al  
2012; 83 (4)
- **Microscopic probing of the size dependence in hydrophobic solvation** *JOURNAL OF CHEMICAL PHYSICS*  
Huang, N., Schlesinger, D., Nordlund, D., Huang, C., Tyliszczak, T., Weiss, T. M., Acremann, Y., Pettersson, L. G., Nilsson, A.  
2012; 136 (7)
- **Polarization dependent resonant x-ray emission spectroscopy of D<sub>2</sub>O and H<sub>2</sub>O water: Assignment of the local molecular orbital symmetry** *JOURNAL OF CHEMICAL PHYSICS*  
Tokushima, T., Horikawa, Y., Arai, H., Harada, Y., Takahashi, O., Pettersson, L. G., Nilsson, A., Shin, S.  
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- **X-ray emission spectroscopy and density functional study of CO/Fe(100)** *JOURNAL OF CHEMICAL PHYSICS*  
Gladh, J., Oberg, H., Li, J., Ljungberg, M. P., Matsuda, A., Ogasawara, H., Nilsson, A., Pettersson, L. G., Ostrom, H.  
2012; 136 (3)
- **Probing substrate effects in the carbon-projected band structure of graphene on Pt(111) through resonant inelastic x-ray scattering** *PHYSICAL REVIEW B*  
Rajasekaran, S., Kaya, S., Anniyev, T., Ogasawara, H., Nilsson, A.  
2012; 85 (4)
- **Tuning the Metal-Adsorbate Chemical Bond through the Ligand Effect on Platinum Subsurface Alloys** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Anniyev, T., Kaya, S., Rajasekaran, S., Ogasawara, H., Nordlund, D., Nilsson, A.

2012; 51 (31): 7724-7728

- **Ab Initio van der Waals Interactions in Simulations of Water Alter Structure from Mainly Tetrahedral to High-Density-Like** *JOURNAL OF PHYSICAL CHEMISTRY B*

Mogelhoj, A., Kelkkanen, A. K., Wikfeldt, K. T., Schiotz, J., Mortensen, J. J., Pettersson, L. G., Lundqvist, B. I., Jacobsen, K. W., Nilsson, A., Norskov, J. K.

2011; 115 (48): 14149-14160

- **Perspective on the structure of liquid water** *CHEMICAL PHYSICS*

Nilsson, A., Pettersson, L. G.

2011; 389 (1-3): 1-34

- **Oxidation of Pt(111) under Near-Ambient Conditions** *PHYSICAL REVIEW LETTERS*

Miller, D. J., Oberg, H., Kaya, S., Casalongue, H. S., Friebel, D., Anniyev, T., Ogasawara, H., Bluhm, H., Pettersson, L. G., Nilsson, A.

2011; 107 (19)

- **X-ray Raman scattering provides evidence for interfacial acetonitrile-water dipole interactions in aqueous solutions** *JOURNAL OF CHEMICAL PHYSICS*

Huang, N., Nordlund, D., Huang, C., Bergmann, U., Weiss, T. M., Pettersson, L. G., Nilsson, A.

2011; 135 (16)

- **Increased fraction of low-density structures in aqueous solutions of fluoride** *JOURNAL OF CHEMICAL PHYSICS*

Waluyo, I., Huang, C., Nordlund, D., Weiss, T. M., Pettersson, L. G., Nilsson, A.

2011; 134 (22)

- **Enhanced small-angle scattering connected to the Widom line in simulations of supercooled water** *JOURNAL OF CHEMICAL PHYSICS*

Wikfeldt, K. T., Huang, C., Nilsson, A., Pettersson, L. G.

2011; 134 (21)

- **Hydrogen Spillover in Pt-Single-Walled Carbon Nanotube Composites: Formation of Stable C-H Bonds** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*

Bhowmick, R., Rajasekaran, S., Friebel, D., Beasley, C., Jiao, L., Ogasawara, H., Dai, H., Clemens, B., Nilsson, A.

2011; 133 (14): 5580-5586

- **The structure of water in the hydration shell of cations from x-ray Raman and small angle x-ray scattering measurements** *JOURNAL OF CHEMICAL PHYSICS*

Waluyo, I., Huang, C., Nordlund, D., Bergmann, U., Weiss, T. M., Pettersson, L. G., Nilsson, A.

2011; 134 (6)

- **Vibrational interference effects in x-ray emission of a model water dimer: Implications for the interpretation of the liquid spectrum** *JOURNAL OF CHEMICAL PHYSICS*

Ljungberg, M. P., Pettersson, L. G., Nilsson, A.

2011; 134 (4)

- **Wide-angle X-ray diffraction and molecular dynamics study of medium-range order in ambient and hot water** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*

Huang, C., Wikfeldt, K. T., Nordlund, D., Bergmann, U., McQueen, T., Sellberg, J., Pettersson, L. G., Nilsson, A.

2011; 13 (44): 19997-20007

- **Spatially inhomogeneous bimodal inherent structure of simulated liquid water** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*

Wikfeldt, K. T., Nilsson, A., Pettersson, L. G.

2011; 13 (44): 19918-19924

- **In situ X-ray probing reveals fingerprints of surface platinum oxide** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*

Friebel, D., Miller, D. J., O'Grady, C. P., Anniyev, T., Bargar, J., Bergmann, U., Ogasawara, H., Wikfeldt, K. T., Pettersson, L. G., Nilsson, A.

2011; 13 (1): 262-266

- **Degradation of Bimetallic Model Electrocatalysts: An In Situ X-Ray Absorption Spectroscopy Study** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*

Friebel, D., Miller, D. J., Nordlund, D., Ogasawara, H., Nilsson, A.

2011; 50 (43): 10190-10192

- **Formation of hydroxyl and water layers on MgO films studied with ambient pressure XPS** *SURFACE SCIENCE*  
Newberg, J. T., Starr, D. E., Yamamoto, S., Kaya, S., Kendelewicz, T., Mysak, E. R., Porsgaard, S., Salmeron, M. B., Brown, G. E., Nilsson, A., Bluhm, H.  
2011; 605 (1-2): 89-94
- **Semiclassical description of nuclear dynamics in x-ray emission of water** *PHYSICAL REVIEW B*  
Ljungberg, M. P., Nilsson, A., Pettersson, L. G.  
2010; 82 (24)
- **Low O-2 dissociation barrier on Pt(111) due to adsorbate-adsorbate interactions** *JOURNAL OF CHEMICAL PHYSICS*  
Miller, D. J., Oberg, H., Naslund, L., Anniyev, T., Ogasawara, H., Pettersson, L. G., Nilsson, A.  
2010; 133 (22)
- **Direct Interaction of Water Ice with Hydrophobic Methyl-Terminated Si(111)** *JOURNAL OF PHYSICAL CHEMISTRY C*  
Waluyo, I., Ogasawara, H., Kawai, M., Nilsson, A., Yamada, T.  
2010; 114 (44): 19004-19008
- **X-RAY SPECTROSCOPY Transferring electrons to water (vol 2, pg 800, 2010)** *NATURE CHEMISTRY*  
Nilsson, A.  
2010; 2 (11): 913-913
- **Increasing correlation length in bulk supercooled H<sub>2</sub>O, D<sub>2</sub>O, and NaCl solution determined from small angle x-ray scattering** *JOURNAL OF CHEMICAL PHYSICS*  
Huang, C., Weiss, T. M., Nordlund, D., Wikfeldt, K. T., Pettersson, L. G., Nilsson, A.  
2010; 133 (13)
- **Transferring electrons to water (vol 2, pg 800, 2010)** *NATURE CHEMISTRY*  
Nilsson, A.  
2010; 2 (10)
- **X-RAY SPECTROSCOPY Transferring electrons to water** *NATURE CHEMISTRY*  
Nilsson, A.  
2010; 2 (10): 800-802
- **Cooperativity in Surface Bonding and Hydrogen Bonding of Water and Hydroxyl at Metal Surfaces** *JOURNAL OF PHYSICAL CHEMISTRY C*  
Schiros, T., Ogasawara, H., Naslund, L., Andersson, K. J., Ren, J., Meng, S., Karlberg, G. S., Odelius, M., Nilsson, A., Pettersson, L. G.  
2010; 114 (22): 10240-10248
- **Lattice-strain control of the activity in dealloyed core-shell fuel cell catalysts** *NATURE CHEMISTRY*  
Strasser, P., Koh, S., Anniyev, T., Greeley, J., More, K., Yu, C., Liu, Z., Kaya, S., Nordlund, D., Ogasawara, H., Toney, M. F., Nilsson, A.  
2010; 2 (6): 454-460
- **Reply to Soper et al.: Fluctuations in water around a bimodal distribution of local hydrogen-bonded structural motifs** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Huang, C., Wikfeldt, K. T., Tokushima, T., Nordlund, D., Harada, Y., Bergmann, U., Niebuhr, M., Weiss, T. M., Horikawa, Y., Leetmaa, M., Ljungberg, M. P., Takahashi, O., Lenz, et al  
2010; 107 (12): E45-E45
- **Oxygen-oxygen correlations in liquid water: Addressing the discrepancy between diffraction and extended x-ray absorption fine-structure using a novel multiple-data set fitting technique** *JOURNAL OF CHEMICAL PHYSICS*  
Wikfeldt, K. T., Leetmaa, M., Mace, A., Nilsson, A., Pettersson, L. G.  
2010; 132 (10)
- **The role of substrate electrons in the wetting of a metal surface** *JOURNAL OF CHEMICAL PHYSICS*  
Schiros, T., Takahashi, O., Andersson, K. J., Ostrom, H., Pettersson, L. G., Nilsson, A., Ogasawara, H.  
2010; 132 (9)
- **Preface to special issue on inner-shell spectroscopies applied to water and hydrogen bonds** *Preface JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Nilsson, A., Guo, J.

2010; 177 (2-3): 59-59

- **Theoretical approximations to X-ray absorption spectroscopy of liquid water and ice** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Leetmaa, M., Ljungberg, M. P., Lyubartsev, A., Nilsson, A., Pettersson, L. G.  
2010; 177 (2-3): 135-157
- **Chemical bonding of water to metal surfaces studied with core-level spectroscopies** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Schiros, T., Andersson, K. J., Pettersson, L. G., Nilsson, A., Ogasawara, H.  
2010; 177 (2-3): 85-98
- **X-ray absorption spectroscopy and X-ray Raman scattering of water and ice; an experimental view** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Nilsson, A., Nordlund, D., Waluyo, I., Huang, N., Ogasawara, H., Kaya, S., Bergmann, U., Naeslund, L., Ostrom, H., Wernet, P., Andersson, K. J., Schiros, T., Pettersson, et al  
2010; 177 (2-3): 99-129
- **High resolution X-ray emission spectroscopy of water and its assignment based on two structural motifs** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Tokushima, T., Harada, Y., Horikawa, Y., Takahashi, O., Senba, Y., Ohashi, H., Pettersson, L. G., Nilsson, A., Shin, S.  
2010; 177 (2-3): 192-205
- **Water Adsorption on alpha-Fe<sub>2</sub>O<sub>3</sub>(0001) at near Ambient Conditions** *JOURNAL OF PHYSICAL CHEMISTRY C*  
Yamamoto, S., Kendelewicz, T., Newberg, J. T., Ketteler, G., Starr, D. E., Mysak, E. R., Andersson, K. J., Ogasawara, H., Bluhm, H., Salmeron, M., Brown, G. E., Nilsson, A.  
2010; 114 (5): 2256-2266
- **Peroxide-like intermediate observed at hydrogen rich condition on Pt(111) after interaction with oxygen** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*  
MacNaughton, J. B., Naslund, L., Anniyev, T., Ogasawara, H., Nilsson, A.  
2010; 12 (21): 5712-5716
- **Complementarity between high-energy photoelectron and L-edge spectroscopy for probing the electronic structure of 5d transition metal catalysts** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*  
Anniyev, T., Ogasawara, H., Ljungberg, M. P., Wikfeldt, K. T., MacNaughton, J. B., Naslund, L., Bergmann, U., Koh, S., Strasser, P., Pettersson, L. G., Nilsson, A.  
2010; 12 (21): 5694-5700
- **Sensitivity of x-ray absorption spectroscopy to hydrogen bond topology** *PHYSICAL REVIEW B*  
Nordlund, D., Ogasawara, H., Andersson, K. J., Tatar khanov, M., Salmeron, M., Pettersson, L. G., Nilsson, A.  
2009; 80 (23)
- **The inhomogeneous structure of water at ambient conditions** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Huang, C., Wikfeldt, K. T., Tokushima, T., Nordlund, D., Harada, Y., Bergmann, U., Niebuhr, M., Weiss, T. M., Horikawa, Y., Leetmaa, M., Ljungberg, M. P., Takahashi, O., Lenz, et al  
2009; 106 (36): 15214-15218
- **Assessing the electric-field approximation to IR and Raman spectra of dilute HOD in D<sub>2</sub>O** *JOURNAL OF CHEMICAL PHYSICS*  
Ljungberg, M. P., Lyubartsev, A. P., Nilsson, A., Pettersson, L. G.  
2009; 131 (3)
- **Increased fraction of weakened hydrogen bonds of water in aerosol OT reverse micelles** *JOURNAL OF CHEMICAL PHYSICS*  
Waluyo, I., Nordlund, D., Bergmann, U., Pettersson, L. G., Nilsson, A.  
2009; 131 (3)
- **On the Range of Water Structure Models Compatible with X-ray and Neutron Diffraction Data** *JOURNAL OF PHYSICAL CHEMISTRY B*  
Wikfeldt, K. T., Leetmaa, M., Ljungberg, M. P., Nilsson, A., Pettersson, L. G.  
2009; 113 (18): 6246-6255

- **NO<sub>2</sub> Adsorption on Ag(100) Supported MgO(100) Thin Films: Controlling the Adsorption State with Film Thickness** *JOURNAL OF PHYSICAL CHEMISTRY C*  
Starr, D. E., Weis, C., Yamamoto, S., Nilsson, A., Bluhm, H.  
2009; 113 (17): 7355-7363
- **Energetics of C-H Bonds Formed at Single-Walled Carbon Nanotubes** *NANO LETTERS*  
Nikitin, A., Zhang, Z., Nilsson, A.  
2009; 9 (4): 1301-1306
- **Water growth on metals and oxides: binding, dissociation and role of hydroxyl groups** *FARADAY DISCUSSIONS*  
Salmeron, M., Bluhm, H., Tatarikhanov, N., Ketteler, G., Shimizu, T. K., Mugarza, A., Deng, X., Herranz, T., Yamamoto, S., Nilsson, A.  
2009; 141: 221-229
- **Probing the hydrogen-bond network of water via time-resolved soft X-ray spectroscopy** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*  
Huse, N., Wen, H., Nordlund, D., Szilagyi, E., Daranciang, D., Miller, T. A., Nilsson, A., Schoenlein, R. W., Lindenberg, A. M.  
2009; 11 (20): 3951-3957
- **The structure of mixed H<sub>2</sub>O-OH monolayer films on Ru(0001)** *JOURNAL OF CHEMICAL PHYSICS*  
Tatarikhanov, M., Fomin, E., Salmeron, M., Andersson, K., Ogasawara, H., Pettersson, L. G., Nilsson, A., Cerda, J. I.  
2008; 129 (15)
- **Diffraction and IR/Raman data do not prove tetrahedral water** *JOURNAL OF CHEMICAL PHYSICS*  
Leetmaa, M., Wikfeldt, K. T., Ljungberg, M. P., Odellius, M., Swenson, J., Nilsson, A., Pettersson, L. G.  
2008; 129 (8)
- **High resolution X-ray emission spectroscopy of liquid water: The observation of two structural motifs** *CHEMICAL PHYSICS LETTERS*  
Tokushima, T., Harada, Y., Takahashi, O., Senba, Y., Ohashi, H., Pettersson, L. G., Nilsson, A., Shin, S.  
2008; 460 (4-6): 387-400
- **Electronic structure effects in liquid water studied by photoelectron spectroscopy and density functional theory** *CHEMICAL PHYSICS LETTERS*  
Nordlund, D., Odellius, M., Bluhm, H., Ogasawara, H., Pettersson, L. G., Nilsson, A.  
2008; 460 (1-3): 86-92
- **C-H bond formation at the graphite surface studied with core level spectroscopy** *SURFACE SCIENCE*  
Nikitin, A., Naeslund, L., Zhang, Z., Nilsson, A.  
2008; 602 (14): 2575-2580
- **Comment on "Isotope and Temperature Effects in Liquid Water Probed by X-ray Absorption and Resonant X-ray Emission Spectroscopy"** *PHYSICAL REVIEW LETTERS*  
Pettersson, L. G., Tokushima, T., Harada, Y., Takahashi, O., Shin, S., Nilsson, A.  
2008; 100 (24)
- **Spectroscopic evidence for the formation of 3-D crystallites during isothermal heating of amorphous ice on Pt(111)** *SURFACE SCIENCE*  
Waluyo, I., Nordlund, D., Naeslund, L., Ogasawara, H., Pettersson, L. G., Nilsson, A.  
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