

Recent selected publications

A. Gupta, M. T. Swihart, H. Wiggers

Luminescent Colloidal Dispersion of Silicon Quantum Dots from Microwave Plasma Synthesis: Exploring the Photoluminescence Behavior Across the Visible Spectrum

Adv. Funct. Mater., 19, 1-8 (2009)

[DOI:10.1002/adfm.200801548]

M. Bernien, J. Miguel, C. Weis, Md. E. Ali, J. Kurde, B. Krumme, P. M. Panchmatia,, B. Sanyal, M. Piantek, P. Srivastava, K. Baberschke, P. M. Oppeneer, O. Eriksson, W. Kuch, and H. Wende

Tailoring the Nature of Magnetic Coupling of Fe-Porphyrin Molecules to Ferromagnetic Substrates

Phys. Rev. Lett. 102, 047202 (2009)

[DOI:10.1103/PhysRevLett.102.047202]

E. Hontañón and F. E. Kruis

A Differential Mobility Analyzer (DMA) for Size Selection of Nanoparticles at High Flow Rates

Aerosol Science and Technology 43:25-37 (2009)

[DOI:10.1080/02786820802446812]

P Entel and M E Gruner

Large-scale ab initio simulations of binary transition metal clusters for storage media materials

J. Phys.: Condens. Matter 21 (2009)

[DOI:10.1088/0953-8984/21/6/064228]

Hermann A. Dürr, Thomas Eimüller, Hans-Joachim Elmers, Stefan Eisebitt, Michael Farle, Wolfgang Kuch, Frank Matthes, Michael Martins, Hans-Christoph Mertins, Peter M. Oppeneer, Lukasz Plucinski, Claus M. Schneider, Heiko Wende, Wilfried Wurth, and Hartmut Zabel

A Closer Look Into Magnetism: Opportunities With Synchrotron Radiation

IEEE TRANSACTIONS ON MAGNETICS, VOL. 45, NO.1 (2009)

[DOI:10.1109/TMAG.2008.2006667]

M. A. Uijttewaal, T. Hickel, J. Neugebauer, M. E. Gruner and P. Entel

Understanding the Phase Transitions of the Ni₂MnGa Magnetic Shape Memory System from First Principles

Phys. Rev. Lett. 102, 035702 (2009)

[DOI: 10.1103/PhysRevLett.102.035702]

Manika Khanuja, Shubhra Kala, B. R. Mehta and F. E. Kruis

Concentration-specific hydrogen sensing behavior in monosized Pd nanoparticle layers

Nanotechnology 20, 015502 (2009)

[DOI:10.1088/0957-4484/20/1/015502]

P. Entel, M.E. Gruner, G. Rollmann, A. Hucht, S. Sahoo, A.T. Zayak, H.C. Herper, and A. Dannenberg

First-principles investigations of multimetallic transition metal clusters

Philosophical Magazine, Vol. 88, Nos. 18-20, 21 June-11 July 2008, 2725-2738

[DOI: 10.1080/14786430802398040]

V. D. Buchelnikov, P. Entel, S. V. Taskaev, V. V. Sokolovskiy, A. Hucht, M. Ogura, H. Akai, M. E. Gruner, and S. K. Nayak

Monte Carlo study of the influence of antiferromagnetic exchange interactions on the phase transitions of ferromagnetic Ni-Mn-X alloys (X=In,Sn,Sb)

PHYSICAL REVIEW B 78, 184427 (2008)

[DOI: 10.1103/PhysRevB.78.184427]

Frank Neues and Matthias Epple

X-ray Microcomputer Tomography for the Study of Biomineralized Endo- and Exoskeletons of Animals

Chem. Rev. 2008, 108, 4734 - 4741

[DOI: 10.1021/cr078250m]

R. Theissmann, M. Fendrich, R. Zinetullin, G. Guenther, G. Schierning, and D. E. Wolf

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A. Ney, T. Kammermeier, V. Ney, K. Ollefs, S. Ye

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Journal of Magnetism and Magnetic Materials 320 (2008) 3341-3346

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[DOI: 10.1063/1.3000452]

H. Fissan

Nachhaltige Nanotechnologie

Nordrhein-Westfälische Akademie der Wissenschaften, Vorträge I 2, S. 25 - 40 (ISBN : 978-3-506-76565-9)

T.A.J. Kuhlbusch, H. Fissan, C. Asbach

Measurement and Detection of Nanoparticles within the Environment

Nanotechnology, Volume 2: Environmental Aspects, Krug, Harald (Hrsg.), S. 229-266 (ISBN : 978-3-527-31735-6)

[Probekapittel]

C. Asbach, H. Fissan, T.A.J. Kuhlbusch, J. Wang, D.Y.H. Pui

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Appl. Phys. Lett., 93, 054104 1-3

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Health Related Concerns for Nanoparticles

NNIN Nanotechnology Open Textbook Chapter 7 section 9

[Link]

J. Wang, D. Y. H. Pui, S.-J. Yook, H. Fissan, E. Ultanir, T. Liang

Controlled Deposition of NIST-traceable Nanoparticles as Additional Size Standards for Photomask Applications

Metrology, Inspection, and Process Control for Microlithography XXII, Proc. of SPIE Vol. 6922 69220G 1-10

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Magnetic Friction in Ising Spin Systems

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Simulating functional magnetic materials on supercomputers

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