

9 Literaturverzeichnis

- /1/ R.W. Siegel, E. Hu, M.C. Roco (Editors)
Nanostructure Science and Technology
R &D Status and Trends in Nanoparticles, Nanostructured Materials and Nanodevices
Kluwer Academic Publishers, Dordrecht, 1999
- /2/ M. Wendel, B. Irmer, J. Cortes, R. Kaiser, H. Lorenz, J.P. Kotthaus, A. Lorke,
E. Williams
Nanolithography with an Atomic Force Microscope
Superl. Microstr. **20**, pp. 349-356, 1996
- /3/ S.W. Park, H.T. Soh, C.F. Quate, S.-I. Park
Nanometer Scale Lithography at High Scanning Speeds with the Atomic Force
Microscope Using Spin on Glass
Appl. Phys. Lett. **67**, pp. 2415-2417, 1995
- /4/ B. Heidari, I. Maximov, L. Motelius
Nanoimprint Lithography at the 6 in. Wafer Scale
J. Vac. Sci. Technol. B **18**, pp. 3557-3560, 2000
- /5/ S.Y. Chou, P.K. Krauss, P.J. Renstrom
Imprint Lithography with 25-Nanometer Resolution
Science **272**, pp. 85-87, 1996
- /6/ R. Turton
The Quantum Dot
A Journey into the Future of Microelectronics
Oxford University Press, New York, 1995
- /7/ R.F. Service
Small Clusters Hit the Big Time
Science **271**, pp. 920-922, 1996
- /8/ T. Yoshida, Y. Yamada, T. Orii
Electroluminescence of Silicon Nanocrystallites Prepared by Pulsed Laser Ablation in
Reduced Pressure Inert Gas
J. Appl. Phys. **83**, pp 5427-5432, 1998
- /9/ T. Junno, M.H. Magnusson, S.-B. Carlsson, K. Deppert, J.-O. Malm, L. Montelius,
L. Samuelson
Single-Electron Device via Controlled Assembly of Desigend Nanoparticles
Microelectr. Engin. **47**, pp. 179-183, 1999

- /10/ A.N. Korotkov
Wireless Single-Electron Logic Biased by Alternating Electric field
Appl. Phys. Lett. **6**, pp. 2412-2414, 1995
- /11/ K.K. Likharev
Layered Tunnel Barriers for Nonvolatile Memory Devices
Appl. Phys. Lett. **73**, pp. 2137-2139, 1998
- /12/ M. Roukes
Nanoelectromechanical Systems Face the Future
PhysicsWeb Physics World Magazine: <http://physicsweb.org/article/world/14/2/8>,
pp. 1-6, 2001
- /13/ A.N. Cleland, M.L. Roukes
Fabrication of High Frequency Nanometer Scale Mechanical Resonators from Bulk Si Crystals
Appl. Phys. Lett. **69**, pp. 2653-2655, 1996
- /14/ A.A.G. Requicha
Nanoparticle Patterns
J. Nanoparticle Res. **1**, pp. 21-323, 1999
- /15/ C.J. Kiely, J. Fink, M. Brust, D. Bethell, D.J. Schiffrin
Spontaneous Ordering of Bimodal Ensembles of Nanoscopic Gold Clusters
Nature **396**, pp. 444-446, 1998
- /16/ S. Huang, G. Tsutsui, H. Sakaue, S. Shingubara, T. Takahagi
Control of Interdot Space and Dot Size in a Two-Dimensional Gold Nanodot Array
Jpn. J. Appl. Phys. **38**, pp. L473-L476, 1999
- /17/ C.A. Mirkin, R.L. Letsinger, R.C. Mucic, J.J. Storhoff
A DNA-Based Method for Rationally Assembling Nanoparticles Into Macroscopic Materials
Nature **382**, pp. 607-609, 1996
- /18/ H. Fudouzi, M. Kobayashi, N. Shinya
Arrangement of Microscale Particles by Electrification
Kona, **17**, pp. 55-63, 1999
- /19/ E. Kim, Y. Xia, G.M. Whiteside
Two- and Three-Dimensional Crystallisation of Polymeric Microspheres by Micromolding in Capillaries
Adv. Mater. **8**, pp. 245-247, 1996

- /20/ W. Seifert, N. Carlsson, P. Castrillo, D. Hessman, J. Johansson, M.-E. Pistol,
L. Samuelson
Quantum Dots Grown In-Situ by MOVPE: Sizes, Densities and Optical Properties
Braz. J. Physics **27/A**, pp. 3-11, 1997
- /21/ J. Johansson, W. Seifert
Size Control of Self-Assembled Quantum Dots
J. Crystal Growth **221**, pp. 566-570, 2000
- /22/ F.E. Kruis, H. Fissan, A. Peled
Synthesis of Nanoparticles in the Gas Phase for Electronic, Optical and Magnetic Applications- A Review
J. Aerosol Sci. **29**, pp. 511-535, 1998
- /23/ R.P. Andres, J.D. Bielefeld, J.I. Henderson, D.B. Janes, V.R. Kolagunta, C.P. Kubiak,
W.J. Mahoney, R.G. Osifchin
Self-Assembly of a Two-Dimensional Superlattice of Molecularly Linked Metal Clusters
Science **273**, pp. 1690-1693, 1996
- /24/ J. Liu, T. Lee, D.B. Janes, B.L. Walsh, M.R. Melloch, J.M. Woodall, R. Reifengerger,
R.P. Andres
Guided Self-Assembly of Au Nanocluster Arrays Electronically Coupled to Semiconductor Device Layers
Appl. Phys. Lett. **77**, pp. 373-375, 2000
- /25/ J. Liu, J.C. Barnard, K. Seeger, R.E. Palmer
Microfabrication of Nanoscale Cluster Chains on a Patterned Si Surface
Appl. Phys. Lett. **73**, pp. 2030-2032, 1998
- /26/ W. Prost, F.E. Kruis, F. Otten, K. Nielsch, B. Rellinghaus, U. Auer, A. Peled,
E.F. Wassermann, H. Fissan, F.J. Tegude
Monodisperse Aerosol Particle Deposition: Prospects for Nanoelectronics
Microelectr. Engin. **42**, pp. 535-538, 1998
- /27/ K.-I. Tanoue, M. Yamaguchi, M. Masuda
Electrostatic Control of Particle Deposition
Advanced Powder Technol. **10**, pp. 119-132, 1999
- /28/ J. Dixkens
Entwicklung von Probennahmekomponenten insbesondere für den Einsatz bei hohen Drücken und Temperaturen
Dissertation, Gerhardt-Mercator-Universität GH Duisburg, 1995

- /29/ J. Dixkens, H. Fissan
Development of an Electrostatic Precipitator for Off-Line Particle Analysis
Aerosol Sci. Technol. **30**, pp. 438-453, 1999
- /30/ S.K. Friedlander
Smoke, Dust and Haze
Wiley, New York, 1977
- /31/ B.Y.H. Liu, K.H. Ahn
Particle Deposition on Semiconductor Wafers
Aerosol Sci. Technol. **6**, pp. 215-224, 1987
- /32/ D.W. Cooper, M.H. Peters, R.J. Miller
Predicted Deposition of Submicrometer Particles due to Diffusion and Electrostatics in Viscous Axisymmetric Stagnation-Point Flow
Aerosol Sci. Technol. **11**, pp. 133-143, 1989
- /33/ F. Schmidt, H. Fissan, K.G. Schmidt
Numerical Calculations of Particle Deposition in a Laminar Flow Impinging onto a Free Standing Disc
Wärme- und Stoffübertragung **30**, pp. 47-54, 1994
- /34/ F. Schmidt, H. Fissan, K.G. Schmidt
Transport of Submicron Particles from a Leak to a Perpendicular Surface in a Chamber at Reduced Pressure
J. Aerosol Sci. **27**, pp. 547-557, 1996
- /35/ W.C. Hinds
Aerosol Technology
Properties, Behavior, and Measurement of Airborne Particles
Wiley, New York, 1999
- /36/ I. Wolff
Grundlagen und Anwendungen der Maxwell'schen Theorie I
Ein Repetitorium
Bibliographisches Institut, Band 818, Mannheim, 1991
- /37/ T.B. Jones
Electromechanics of Particles
Cambridge University Press, New York, 1995
- /38/ J. Israelachvili
Intermolekular & Surface Forces
Academic Press, London, 1992

- /39/ W.R. Bowen, F. Jenner
*Dynamic Ultrafiltration Model of Charged Colloidal Dispersions:
A Wigner-Seitz Cell Approach*
Chem. Engin. Sci. **50**, pp. 1707-1736, 1995
- /40/ D. Gupta, M. H. Peters
A Brownian Dynamics Simulation of Aerosol Deposition onto Spherical Collectors
J. Colloid Interface Sci. **104**, pp. 375-389, 1984
Erratum in J. Colloid Interface Sci. **110**, pp. 301-303, 1986
- /41/ B.V. Ramarao, C. Tien, S. Mohan
*Calculation of Single Fiber Efficiencies for Interception and Impaction with Superposed
Brownian Motion*
J. Aerosol Sci. **25**, pp. 295-313, 1994
- /42/ T. Zaratskaya, M. Shapiro
Capture of Nanoparticles by Magnetic Filters
J. Aerosol Sci. **31**, pp. 907-921, 2000
- /43/ S. Chandrasekhar
Stochastic Problems in Physics and Astronomy
Rev. Modern Phys. **15**, pp. 20-27, 1943
- /44/ W.H. Press, S.A. Teukolsky, W.T. Vetterling, B.P. Flannery
Numerical Recipes in FORTRAN 77: The Art of Scientific Computing
Cambridge University Press, New York, 1992
- /45/ K. Deppert, J.-O. Bovin, J.-O. Malm, L. Samuelson
*A new Method to Fabricate Size-Selected Compound Semiconductor Nanocrystals:
Aerostaxy*
J. Cryst. Growth **169**, pp. 13-19, 1996
- /46/ H.G. Scheibel, J. Porstendörfer
*Generation of Monodisperse Ag- and NaCl-Aerosols with Particle Diameters Between
2 and 300 nm*
J. Aerosol Sci. **14**, pp. 113-126, 1983
- /47/ A. Maisels, F. Jordan, H. Kirsch, H. Fissan, A. Schmidt-Ott
Unipolar and Bipolar Aerosol Charging by UV-Radiation
J. Aerosol Sci. **31**, pp. S999-S1000, 2000
- /48/ U.S. National Institutes of Health
<http://rsb.info.nih.gov/nih-image/>

- /49/ Y.Fukano, Y. Sugawara, T. Uchihashi, T. Okusako, S. Morita, Y. Yamanishi, T. Oasa
Phase Transition of Contact-Electrified Negative Charges on a Thin Silicon Oxide in Air
Jpn. J. Appl. Phys. **35**, pp. 2394-2401, 1996
- /50/ P. Avouris, T. Hertel, R. Martel
Atomic Force Microscope Tip-Induced Local Oxidation of Silicon: Kinetic, Mechanism, and Nanofabrication
Appl. Phys. Lett. **71**, pp. 285-287, 1997
- /51/ M.H. Magnusson, K. Deppert, J.-O. Malm, J.-O. Bovin, L. Samuelson
Gold Nanoparticles: Production, Reshaping, and Thermal Charging
J. Nanoparticle Res. **1**, pp. 243-251, 1999
- /52/ T. Krinke, K. Deppert, M. H. Magusson, L Samuelson
Nano Xerography
International Patent Application, PCT/GB0101972, pp 1-12, 2000
- /53/ J. Lowell, A.C. Rose-Innes
Contact Electrification
Advances In Physics **29**, pp. 947-1023, 1980
- /54/ J. Lowell
Contact Electrification of Silica and Soda
J. Phys. D: Appl. Phys. **23**, pp. 1082-1091, 1990
- /55/ W.M.D. Wright, D.G. Chetwynd
Can Charge Writing Aid Nanotechnological Manipulation?
Nanotechnology **9**, pp. 133-142, 1998
- /56/ B.D. Terris, J.E. Stern, D. Rugar, H.J. Mamin
Contact Electrification Using Force Microscopy
Phys. Rev. Lett. **63**, pp 2669-2672, 1989
- /57/ Nach einer Idee von F. Jordan
- /58/ T.J Krinke, H. Fissan, K. Deppert, M.H. Magnusson, L. Samuelson:
Positioning of Nanometer-Sized Particles on Flat Surfaces by Direct Deposition from the Gas Phase
Appl. Phys. Lett. **71**, pp. 3708-3710, 2001
- /59/ H.O. Jacobs, G.M. Whitesides
Submicrometer Patterning of Charge in Thin-Film Electrets
Science **291**, pp. 1763-1766, 2001