

List of publications using WITec microscopes

Standard citation format, additional key word listings, applied microscope technique provided in parantheses. References highlighted red are conference proceedings.

2011

Alang Ahmad S.A., Wong L.S., ul-Haq E., Hobbs J.K., Leggett G.J. and Micklefield J. (2011) Protein Micro- and Nanopatterning Using Aminosilanes with Protein-Resistant Photolabile Protecting Groups. *Journal of the American Chemical Society*, **133**, 2749-2759.

Beechem T.E. and Serrano J.R. (2011) Raman Thermometry of Microdevices: Choosing a Method to Minimize Error. *Spectroscopy*, **26**, 36-44. Keywords: none; (Raman)

Bhaskar S., Gibson C.T., Yoshida M., Nandivada H., Deng X., Voelcker N.H. and Lahann J. (2011) Engineering, Characterization and Directional Self-Assembly of Anisotropically Modified Nanocolloids. *Small*, **6**, 812-819.

Collins A.M., Jones H.D.T., Han D., Hu Q., Beechem T.E. and Timlin J.A. (2011) Carotenoid Distribution in Living Cells of *Haematococcus pluvialis* (Chlorophyceae), *Plos One*, **6**, 24302pp.

Farcau C. and Astilean S. (2011) Evidence of a surface Plasmon-mediated mechanism in the generation of the SERS background. *Chem. Communication*, **47**, 3861-3863.

Haridas V., Sharma Y.K., Creasey R., Sahu S., Gibson C.T. and Voelcker N.H. (2010) Gelation and topochemical polymerization of peptide dendrimers. *New Journal of Chemistry*, **35**, 303-309.

Hessmann M.T., Kunz T., Burkert I., Gawehns N., Schaefer L., Frick T., Schmidt M., Meidel B., Auer R. and Brabec C.J. (2011) Laser process for extended silicon thin film solar cells. *Thin Solid Films*, **520**, 595-599.

Kniggendorf A-K., Meinhardt-Wollweber M. (2011) Of microparticles and bacteria identification – (resonance) Raman micro-spectroscopy as a tool for biofilm analysis (2011) *Water Research*, **45**, 4571-4582.

Kunz T., Hessmann M.T., Meidel B. and Brabec C.J. (2011) Micro-Raman mapping on layers for crystalline silicon thin-film solar cells. *Journal of Crystal Growth*, **314**, 53-57.

Neues F., Hild S., Epple M., Marti O. and Ziegler A. (2011) Amorphous and crystalline calcium carbonate distribution in the tergite cuticle of moulting *Porcellio scaber* (Isopoda, Crustacea) *Journal of Structural Biology*, **175**, 10-20.

Lee J., Shim S., Kim B. and Shin H.S. (2011) Surface-Enhanced Raman Scattering of Single- and Few- Layer Graphene by the Deposition of Gold Nanoparticles. *Chem. Eur. J.*, published online n/a. doi: **10.1002/chem.201002027**.

Lee J., Novoselov K.S. and Shin H.S. (2011) Interaction between Metal and Graphene: Dependence on the Layer Number of Graphene. *ACS Nano*, **5**, 608-612.

Lebedkin S., Blum C., Stürzl N., Hennrich Frank and Kappes M.M. (2011) A low-wavenumber-extended confocal Raman microscope with very high laser excitation line discrimination. *Review of Scientific Instruments*, **82**, 013705pp.

Mathew S., Chan T.K., Zhan D., Gopinadhan K., Barman A.R., Breese M.B.H., Dhar S., Shen Z.X., Venkatesan T. and Thong T.L. (2011) Mega-electron-volt proton irradiation on supported and suspended graphene: A Raman spectroscopic layer dependent study. *Journal Of Applied Physics*, **110**, 084309-1ppt.

Papineau D., De Gregorio B.T., Cody G.D., O'Neil J., Steele A., Stroud R.M. and Fogel M.L. (2011) Young poorly crystalline graphite in the >3.8-Gyr-old Nuvvuagittuq banded iron formation. *Nature geosciences*, **published online 15 May 2011**.

Sai V.V.R., Gangadean D., Niraula I., Jabal J.M., Corti G., McIlroy D.N., Aston D.E., Branen J.R. and Hrdlicka P.J. (2011) Silica Nanosprings Coated with Noble Metal Nanoparticles: Highly Active SERS Substrates. *J. Phys. Chem.* **115**, 453-459.

Schmidt U., Dieing T., Ibach W. and Hollicher O. (2011) A Confocal Raman-AFM Study of Graphene. *Microscopy Today*, **19**, 30-33.

Schwartzberg A.M., Aloni S., Kuykendall T., Schuck P.J. and Urban J.J. (2011) Optical cavity characterization in nanowires via self-generated broad-band emission. *Optics Express*, **19**, 8903-8911.

Seidl B., Huemer K., Neues F., Hild S., Epple M. and Ziegler A. (2011) Ultrastructure and mineral distribution in the tergite cuticle of the beach isopod *Tylos europaeus* Arcangeli, 1938. *Journal of Structural Biology*, **174**, 512-526.

Trewartha S., Shapter J., Gibson C.T., Kikajlo E. and Jones A. (2011) Determination of Deterrent Profiles in Nitrocellulose Propellant Grains Using Confocal Raman Microscopy. *Propellants Explosives Pyrotechnics*, **36**, 451-458.

Vogt A., Gibson C.T., Tune D.D., Bissett M.A., Voelcker N.H., Shapter J.G. and Ellis A.V. (2011) High-order graphene oxide nanoarchitectures, *Nanoscale*, **3**, 3076-3079.

Wacey D., Kilburn M.R., Saunders M., Cliff J. and Brasier M.D. (2011) Microfossils of sulphur-metabolizing cells in 3.4-billion-year-old rocks of Western Australia. *Nature Geoscience*, Advance **Online Publication: 21 August 2011. DOI: 10.1038/NGEO1238.**

Weber-Bargioni A., Schwartzberg A., Cornaglia M., Ismach A., Urban J.J., Pang Y., Gordon R., Bokor J., Salmeron M.B., Ogletree D.F., Ashby Pl. Cabrini S. and Schuck P.J. (2011) Hyperspectral Nanoscale Imaging on Dielectric Substrates with Coaxial Optical Antenna Scan Probes. *Nano Letters*, **11**, 1201-1207.

Westall F., Cavalazzi B., Lemelle L., Marrocchi Y., Rouzaud J-N., Simionovici A., Salomé M., Mostefaoui S., Andreatza C., Foucher F., Toporski J., Jaus A., Thiel V., Southam G., MacLean L., Wirick S., Hofmann A., Meibom A., Robert F. and Défarge. (2011) Implications of in situ calcification for photosynthesis in a 3.3 Ga-old microbial biofilm from the Barberton greenstone beld, *South Africa. Earth and Planetary Science Letters*, **310**, 468-479.

Xiangsheng X., Yongzhu C., Peiqing Z., Yefeng G., Jianying Z., Kam Sing W., Li Y. and Gershon K. (2011) Optimizing lightwave transmission through a nono-tip. *AIP Advances*, **1**, 022130pp.

Xu Y.N., Zhan D., Liu L., Suo H., Ni Z.H., Nguyen T.T., Zhao C. and Shen Z.X. (2010) Thermal Dynamics of Graphene Edges Investigated by Polarized Raman Spectroscopy. *ACS Nano*, **5**, 147-152.

2010

Banholzer M.J., Osberg K.D., Li S., Mangelson B., Schatz G.C. and Mirkin C.A. (2010) Silver-Based Nanodisk Codes. *ACS Nano*, **4**, 5446-5452.

Basak S. and Chandrasekar R. (2010) Multiluminescent Hybrid Organic/Inorganic Nanotubular Structures: One-Pot Fabrication of Tricolor (Blue-Red-Purple) Luminescent Parallelepipedic Organic Superstructure Grafted with Europium Complexes. *Advanced Functional Materials Journal*, published online, 1-7.

Bazaka K., Jacob M.V., Truong V.K., Wang F., Pushpamali W.A.A., Wang J.Y., Ellis A.V., Berndt C.C., Crawford R.J. and Ivanova E.P. (2010) Plasma-Enhanced Synthesis of Bioactive Polymeric Coatings from Monoterpene Alcohols: A Combined Experimental and Theoretical Study. *Biomacromolecules*, **11**, 2016-2026.

Bin Y., Du C., Liao L., You Y., Cheng H., Shen Z. and Yu T. (2010) Raman mapping probing of tip-induced anomalous polarization behavior in V²O₅ waveguiding nanoribbons. *Applied Physics Letters*, **96**, 073105.

Bissett M.A. and Shapter J.G. (2010) Photocurrent Response from Vertically Aligned Single-Walled Carbon Nanotube Arrays. *J. Phys. Chem.*, **114**, 6778-6783.

Boutry C.M., Kiran R., Umbrecht F. and Hierold C. (2010) Processing and quantitative analysis of biodegradable polymers (PLLA and PCL) thermal bonding. *J. Micromech. Microeng.*, **20**, 085006 (13pp).

Brandner B.D., Hansson P.M., Swerin A., Claesson P.M., Wahlander M., Schoelkopf J. and Gane P.A.C. (2010) Solvent segregation and capillary evaporation at a superhydrophobic surface investigated by confocal Raman microscopy and force measurements. *The Royal Society of Chemistry*, Published online on 06 December 2010 on <http://pubs.rsc.org> | doi:10.1039/C0SM00704H.

Cai J., Ruffieux P., Jaafar R., Bieri M., Braun T., Blankenburg S., Muoth M., Seitsonen A.P., Saleh M., Feng X., Müllen K. and Fasel R. (2010) Atomically precise bottom-up fabrication of graphene nanoribbons. *Nature*, **466**, 470-473.

Canpean V., Losin M. and Astilean S. (2010) Disentangling SERS signals from two molecular species: A new evidence for the production of p,p0-dimercaptoazobenzene by catalytic coupling reaction of p-aminothiophenol on metallic nanostructures. *Chemical Physics Letters*, **500**, 277-282.

Celik Y., Graham L.A., Mok Y-F., Davies P.L. and Braslavsky (2010) Superheating of ice crystals in antifreeze protein solutions. *PNAS*, **published online**, www.pnas.org/cqi/doi/10.1073/pnas.0909456107.

Chan Y-H., Chen J., Liu Q., Wark S.E., Son D.H. and Batteas J.D. (2010) Ultrasensitive Copper (II) Detection Using Plasmon-Enhanced and Photo-Brightened Luminescence of CdSe Quantum Dots. *Analytical Chemistry*, **82**, 3671-3678.

Chang S., Combs Z.A., Gupta M.K., Davis R. and Tsukruk V.V. (2010) In situ Growth of Silver Nanoparticles in Porous Membranes for Surface-Enhanced Raman Scattering. *Applied Materials&Interfaces*, **11**, 3333-3339.

Chernenko T., Sawant R., Matthäus C., Quintero L., Torchilin V. and Diem M. (2010) A Novel Approach to Follow the Intracellular Fate of Pharmaceutical Nanocarriers. *CRS Newsletter*, **27**, 18-19.

Chu L-Q., Masyuko R., Sweedler J. V. and Bohn P.W. (2010) Base-induced delignification of miscanthus x giganteus studied by three-dimensional confocal raman imaging. *Bioresource Technology*, **101**, 4919-4925.

DePaula S.M., Huila M.F.G., Araki K. and Toma H.E. (2010) Confocal Raman and electronic microscopy studies on the topotactic conversion of calcium carbonate from *Pomacea lineate* shells into hydroxyapatite bioceramic materials in phosphate media. *Micron*, **41**, 983-989.

Dong J., Malsam J., Bischof J.C., Hubel A. and Aksan A. (2010) Spatial Distribution of the State of Water in Frozen Mammalian Cells. *Biophysical Journal*, **99**, 2453-2459.

Fang J., Du S., Lebedkin S., Li Z., Kruk R., Kappes M. and Hahn H. (2010) Gold Mesostuctures with Tailored Surface Topography and Their Self-Assembly Arrays for Surface-Enhanced Raman Spectroscopy. *Nano Letters*, **10**, 5006-5013.

Faracau C. and Astilean S. (2010) Mapping the SERS Efficiency and Hot-Spots Localization on Gold Film over Nanospheres Substrates. *J. Phys. Chem.*, **114**, 11717-11722.

Foucher F., Westall F., Brandstätter F., Demets R., Parnell J., Cockell C.S., Edwards H.G.M., Bény J.M. and Brack A. (2010) Testing the survival of microfossils in artificial martian sedimentary meteorites during entry into Earth's atmosphere: The STONE 6 experiment. *Icarus*, 207, 616-630.

Fuentes S., Zarate R.A., Chavez E., Munoz P., Diaz-Droguett D. and Leyton P., (2010) Preparation of SrTiO₃ nanomaterial by a sol-gel-hydrothermal method. *J Materials Science*, **45**, 1448-1452.

Galvis L., Mehta M., Masic A., Dunlop J.W.C., Duda G. and Fratzl P. (2010) Collagen Orientation During Early Stages of Bone Fracture Healing Investigated by Polarized Raman Imaging. *XXII International Conference on Raman Spectroscopy, American Institute of Physics*, **406-407**.

Gellner M., Schütz M., Salehi M., Packeisen J. Ströbel P., Marx A., Schmuck C. and Schlücker S. (2010) SERS microscopy: plasmonic nanoparticle probes and biomedical applications. *SPIE 2010*, **7757**, 77570M-1 – 77570M-3.

Girao E. C., Liebold-Ribeiro Y., Batista J.A., Barros E.B., Fagan S.B., Filho J.M., Dresselhaus M.S. and Souza Filho A.G. (2010) Functionalization of single-wall carbon nanotubes through chloroform adsorption: theory and experiment. *Physical Chemistry Chemical Physics*, **12**, 1518-1524.

Gundel P., Heinz F.D., Schubert M.C., Giesecke J.A. and Warta W. (2010) Quantitative carrier lifetime measurement with micron resolution. *Journal of Applied Physics*, **108**, 033705pp.

Gundel P., Kwapil W., Schubert M.C., Seifert H. and Warta W. (2010) Approach to the physical origin of breakdown in silicon solar cells by optical spectroscopy. *Journal of Applied Physics*, **108**, 123703pp.

Gundel P., Schubert M.C., Friedemann D.H., Benick J., Zizak I. and Warta W. (2010) Submicron resolution carrier lifetime analysis in silicon with Fano resonances. *Phys. Status Solidi RRL*, **7**, 160-162.

Gundel P., Schubert M.C., Heinz F. D., Kwapil W., Warta W., Martinez-Criado G., Reiche M. and Weber E.R. (2010) Impact of stress on the recombination at metal precipitates in silicon. *Journal of Applied Physics* **108**, 103707pp

Gundel P., Schubert M.C. and Warta W. (2010) Simultaneous stress and defect luminescence study on silicon. *Phys. Status Solidi A*, **207**, 436-441.

Harati M., Jia J., Giffard K., Pellarin K., Hewson C., Love D.A., Lau W.M. and Ding Z. (2010) One-pot electrodeposition, characterization and photoactivity of stoichiometric copper indium gallium diselenide (CIGS) thin films for solar cells. *Physical Chemistry Chemical Physics*.

Harrington M.J., Masic A., Holten-Andersen N., Waite J.H. and Fratzl P. (2010) Iron-Clad Fibers: A Metal-Based Biological Strategy for Hard Flexible Coatings. *Science*, **328**, 216-220.

Ismach A., Druzgalski C., Penwell S., Schwartzberg A., Zheng M., Javey A., Bokor J. and Zhang Y. (2010) Direct Chemical Vapor Deposition of Graphene on Dielectrics Surfaces. *Nano Letters*, **10**, 1542-1548.

Janko M., Davydovskaya P., Bauer M., Zink A. and Stark R.W. (2010) Anisotropic Raman scattering in collagen bundles, *Optics Letters*, **15**, 2765-2767.

Janko M., Zink A., Gigler A.M., Heckl M. and Stark R.W. (2010) Nanostructure and mechanics of mummified type I collagen from the 5300-year-old Tyrolean Iceman. *The Royal Society*, 1-9.

Jesus de. F.A.A., Andreetta M.R.B., Hernandez A.C. and Macedo Z.S. (2010) Bismuth germinate films prepared by Pechini method. *Optical Materials*, **32**, 1286-1290.

Jin M., Pully V., Otto Cees, Van Der Berg A. and Carlen E.T. (2010) High-Density Periodic Arrays of Self-Aligned Subwavelength Nanopyramids for Surface-Enhanced Raman Spectroscopy. *J. Phys. Chem.*, **114**, 21953-21959.

Klash A., Ncube E., Toit B.D. and Meincken M. (2010) Determination of the cellulose and lignin content on wood fibre surfaces of eucalypts as a function of genotype and site. *European Journal of Forest Research*, **129**, 741-748.

Kranz S.A., Wolf-Gladrow D., Nehrke G., Langer G. and Rost B. (2010) Calcium carbonate precipitation induced by the growth of the marine cyanobacterium *Trichodesmium*. *Limnol. Oceanogr.* **55**, 2563-2569.

Kravets V.G., Zorinants G., Burrows C.P., Schedin C., Casiraghi C., Klar P., Geim A.K., Barnes W.L. and Grigorenko A.N. (2010) Cascaded Optical Field Enhancement in Composite Plasmonic Nanostructures. *Physical Review Letters*, **105**, 246806pp.

Kniggendorf A-K., Gaul T.W. and Meinhardt-Wollweber M. (2010) Effects of Ethanol, Formaldehyde, and Gentle Heat Fixation in Confocal Resonance Raman Microscopy of Purple NonSulfur Bacteria. *Microscopy Research and Technique*, **published online**.

Larmour I.A., Faulds K. and Graham D. (2010) Raman Microspectroscopy Mapping of Chocolate. *XXII International Conference on Raman Spectroscopy, American Institute of Physics*, **758-759**.

Lau K., Matthaeus C., Popp J., Wood B.R., Kloepper J.E., Paus R. and Deckert V. (2010) Label-Free Non-Destructive Identification of Stem Cells in the Hair Follicle with Confocal Raman Spectroscopy. *XXII International Conference on Raman Spectroscopy, American Institute of Physics*, **360-361**.

Li. Z., Chu L.Q., Sweedler J.V. and Bohn P.W. (2010) Spatial Correlation of Confocal Raman Scattering and Secondary Ion Mass Spectrometric Molecular Images of Lignocellulosic Materials. *Analytical Chemistry*, **82**, 2608-2611.

Lim H., Lee J.S., Shin H.-J., Shin H.S. and Choi H.C. (2010) Spatially Resolved Spontaneous Reactivity of Diazonium Salt on Edge and Basal Plane of Graphene without Surfactant and It's Doping Effect. *Langmuir*, **26**, 12278-12284.

Lindquist N.C., Nagpal P., Lesuffleur A., Norris D.J. and Oh S-H. (2010) Three-Dimensional Plasmonic Nanofocusing. *Nano Letters*, **10**, 1369-1373.

Lübbe M., Gigler A., Stark R.W. and Moritz W. (2010) Identification of iron oxide phases in thin films grown on Al₂O₃ (0001) by Raman spectroscopy and X-ray diffraction. *Surface Science*, **604**, 679-685.

Mariani M.M., Maccoux L.J., Matthäus C., Diem M., Hengstler J.G. and Deckert V. (2010) Micro-Raman Detection of Nuclear Membrane Lipid Fluctuations in Senescent Epithelial Breast Cancer Cells. *Analytical Chemistry*, **82**, 4259-4263.

Meister K., Schmidt D.A., Bründermann E. and Havenith M. (2010) Confocal Raman microspectroscopy as an analytical tool to asses the mitochondrial status in human spermatozoa. *The Royal Society of Chemistry*, **135**, 1370-1374.

Meister K., Niesel J., Schatzschneider U., Metzler-Nolte N., Schmidt D. and Havenith M. (2010) Label-Free Imaging of Metal-Carbonyl Complexes in Live Cells by Raman Microspectroscopy. *Angewandte Chemie*, **49**, 3310-3312.

Müller A., Vigolo B., McRae E. and Soldatov A.V. (2010) Raman study of inhomogeneities in carbon nanotube distribution in CNT-PMMA composites. *Phys. Status Solidi*, **247**, 2810-2813.

Nagao T., Han G., Hoang C.V., Wi J.S., Pucci A., Weber D., Neubrecht F., Silkin V.M., Enders D., Saito O. and Rana M. (2010) Plasmons in nanoscale and atomic-scale systems. *Science and Technology of Advanced Materials*, **11**, 054506pp.

Neshev D.N., Minovich A., Dieing T., Hattori H.T., McKerracher I., Tan H.H., Jagadish C. and Kivshar Y.S. (2010) Near-field studies of arrays of chirped subwavelength Apertures. *Physica status solidi*, 1-3.

Paxton J.Z., Grover L.M. and Baar K. (2010) Engineering an In *Vitro* Model of a Functional Ligament from Bone to Bone. *Tissue Engineering*, **16**, 3515-3525.

Pedano M.L., Li S., Schatz G.C. and Mirkin C.A. (2010) Periodic Electric Field Enhancement Along Gold Rods with Nanogaps. *Angew. Chem. Int. Ed.*, **49**, 78-82.

Ploetz E.C., Gellner M., Schütz M., Marx B., Schlücker S. and Gilch P. (2010) Surface Enhancement in Femtosecond Stimulated Raman Scattering. *XXII International Conference on Raman Spectroscopy, American Institute of Physics*, **88-89**.

Rojas S.S., Souza J.E., Andreetta M.R.B. and Hernandez A.C. (2010) Influence of ceria addition on thermal properties and local structure of bismuth germinate glasses. *Journal of Non-Crystalline Solids*, **356**, 2942-2946.

Schäfer-Nolte E.O., Stoica T., Gotschke T., Limbach F.A., Sutter E., Grützmacher D. and Calarco R. (2010) Enhanced light scattering of the forbidden longitudinal optical phonon mode studied by micro-Raman spectroscopy on single InN nanowires. *Nanotechnology*, **21**, 315702pp.

Schäfer-Nolte E.O., Stoica T., Gotschke T., Limbach F., Sutter E. and Calarco R. (2010) Highly polarized Raman scattering anisotropy in single GaN nanowires. *Applied Physics Letters*, **96**, 091907pp.

Schmidt M., Schwartzberg A.M., Carroll A., Chaibang A., Adams P.D. and Schuck J. P. (2010) Raman imaging of cell wall polymers in *Arabidopsis thaliana*. *Biochemical and Biophysical Research Communications*, **395**, 521-523.

Shearer C., Ellis A., Shapter J.G. and Voelcker N.H. (2010) Chemically Grafted Carbon Nanotube Surface Coverage Gradients. *Langmuir*, **26**, 18468-18475.

Steele A., McCubbin F.M., Fries M., Glamoclija, Kater L. and Nekvasil H. (2010) Graphite in an Apollo 17 Impact Melt Breccia. *Science*, **329**, 51.

Sun S., Thompson D., Schmidt U., Graham D., Leggett G.J. (2010) Micro-/ nano-patterning of DNA and rapid readout with SERS tags. *Chemical Communication*, **46**, 5292-5294.

Urbanski M., Kinkead B., Hegmann T. and Kitzerow H. (2010) Director field of birefringent stripes in liquid crystal/nanoparticle dispersions. *Liquid Crystals*, **37**, 1151-1156.

Weber-Bargioni A., Schwartzberg A., Schmidt M., Harteneck B., Ogletree D.F., Schuck P.J. and Cabrini S. (2010) Functional plasmonic antenna scanning probes fabricated by induced-deposition mask lithography. *Nanotechnology*, **21**, 065306pp.

Wermelinger T., Scott A.S., Lagally M.G., Hinderling C. and Spoleank R. (2010) High Lateral resolution analysis of stresses in silver thin films by means of Raman Microscopy. *XXII International Conference on Raman Spectroscopy, American Institute of Physics*, **776-777**.

Wetzel D.L., Shi Y-C. and Schmidt U. (2010) Confocal Raman and AFM imaging of individual granules of octenyl succinate modified and natural waxy starch. *Vibrational Spectroscopy*, **53**, 173-177.

Winfield J.M., Donley C.L., Friend R.H. and Kim J.S. (2010) Probing thin-film morphology of conjugated polymers by Raman spectroscopy. *Journal of Applied Physics*, **107**, 024902pp.

Wu M-C., Liao H-C., Chou Y., Hsu C-P., Yen W-C., Chuang C-M., Lin Y-Y., Chen C-W., Chen Y-F. and Su W-F. (2010) Manipulation of Nanoscale Phase Separation and Optical Properties of P3HT/PMMA Polymer Blends for Photoluminescent Electron Beam Resist. *J. Phys. Chem.*, **114**, 10277-10284.

Zhan D., Sun L., Ni Z.H., Liu L., Fan X.F., Wang Y., Yu T., Lam. Y.M., Huang W. and Shen Z.X. (2010) FeCl₃-Based Few-Layer Graphene Intercalation Compounds: Single Linear Dispersion Electronic Band Structure and Strong Charge Transfer Doping. *Advanced Functionals Materials*, **20**, 3504-3509.

Zhao X., Lam S., Jass J. and Ding Z. (2010) Scanning electrochemical microscopy of single human urinary bladder cells using reactive oxygen species as probe of inflammatory response. *Electrochemistry Communications*, **12**, 773-776.

Zhao X., Zhang M., Long Y. and Ding Z. (2010) Redox reactions of reactive oxygen species in aqueous solutions as the probe for scanning electrochemical microscopy of single live T24 cells. *Can. J. Chem.*, **88**, 569-576

2009

Bauer M., Gigler A.M., Huber A.J., Hillenbrand R. and Stark R.W. (2009) Temperature-depending Raman line-shift of silicon carbide. *Journal Raman Spectroscopy*, **40**, 1867-1874.

Brezna W. and Smoliner J. (2009) Spectrally resolved confocal microscopy for laser mode imaging and beam characteristic investigations. *Applied Physics Letters*, **95**, 201118-1.

Celebrano M., Biagioni P., Zavelani-Rossi M., Polli D., Labardi M., Allegrini M., Finazzi M., Duo L. and Cerullo G. (2009) Hollow-pyramid based scanning near-field optical microscope coupled to femtosecond pulses: A tool for nonlinear optics at the nanoscale. *Review of Scientific Instruments*, **80**, 033704pp.

Chan Y-H., Chen J., Wark S.E., Skiles S.L., Son D.H. and Batteas J.D. (2009) Using Patterned Arrays of Metal Nanoparticles to Probe Plasmon Enhanced Luminescence of CdSe Quantum Dots. *ACS NANO*, Vol. **3**, No.7, 1735-1744.

Charan S., Kuo C.W., Kuo Y.-W., Singh N., Drake P., Lin Y.-J., Tay L. and Chen P. (2009) Synthesis of surface enhanced Raman scattering active magnetic nanoparticles for cell labeling and sorting. *Journal of Applied Physisc*, **105**, 07B310 pp.

Chen X., Braunschweig A.B., Wiester M.J., Yeganeh S., Ratner M.A. and Mirkin C.A. (2009) Spectroscopic Tracking of Molecular Transport Junctions Generated by Using Click Chemistry. *Angew. Chem. Int. Ed.*, **48**, 5178-5181.

Chen X., Li S., Xue C., Banholzer M.J., Schart G.C. and Mirkin A. (2009) Plasmonic Focusing in Rod-Sheath Heteronanostructures. *ACS Nano*, **3**, 87-92.

Chen J., Chan Y.-H., Yang T., Wark S.E., Son D.H. and Batteas J.D. (200) Spatially Selective Optical Tuning of Quantum Dot Thin Film Luminescence. *American Chemical Society*, **131**, 18204-18205.

Cherneko T., Matthäus C., Milane L., Quintero L., Amiji M. and Diem M. (2009) Label-Free Raman Spectral Imaging of Intracellular Delivery and Degradation of Polymeric Nanoparticle Systems. *ACS Nano*, **3**, No. 11, 3552 – 3559.

Chou J.Y., Lensch-Falk J.L., Hemesath E.R. and Lauhon L.J. (2009) Vanadium oxide nanowire phase and orientation analyzed by Raman spectroscopy. *Journal of Applied Physics*, **105**, 034310pp.

Cermàk D., Hammerschmidt J., Rahmfeld C., Jahn S.F., Blaudeck T., Egbe D.A.M., Willert A. and Baumann R.R. (2009) Digital Fabrication of Functional Nanostructured Layers by Inkjet Printing. Proceedings LOPE-C, 1-3.

Descrovil E., Aeschmann L., Soboleva I., De Angelis F., Giorgis F. and Di Fabrizio E. (2009) High Resolution Capabilities of All-Silica Cantilevered Probes for Near-Field Optical Microscopy. *Journal of Nanoscience and Nanotechnology*, **9**, 1-5.

Dong J., Foley J.D., Frethem C.D., Hoerr R.A., Matuszewski M.J., Puskas J.E. and Haugsted G. (2009) Multimodal Dynamic Imaging of Therapeutic Biomedical Coatings in Aqueous Medium. *Langmuir*, **25**, 5442-5445.

Dong J., Hubel A., Bischof J.C. and Aksan A. (2009) Freezing-Induced Phase Separation and Spatial Microheterogeneity in Protein Solutions. *J. Phys. Chem.*, **113**, 10081-10087.

Eronen P. and Österberg M. (2009) Effect of alkaline treatment on cellulose supramolecular structure studied with combined confocal Raman spectroscopy and atomic force microscopy. *Cellulose Journal*, 16:167 – 178.

Gan Q., Zhou L., Dierolf V. and Bartoli F.J. (2009) UV Plasmonic Structures: Direct Observations of UV Extraordinary Optical Transmission and Localized Field Enhancement Through Nanoslits. *IEEE Photonics Journal*, **1**, 245-253.

Gigler A.M., Huber A.J., Bauer M., Ziegler A., Hillenbrand R. and Stark R.W. (2009) Nanoscale residual stress-field mapping around nanoindentations in SiC by IR s-SNOM and confocal Raman microscopy. *Optics Express*, **17**, 22351-22357.

Gundel P., Schubert M.C., Kwapil W., Schön J., Reiche M., Savin H., Yli-Koski M., Sans J.A., Martinez-Criado G., Seifert W., Warta W. and Weber E.R. (2009) Micro-photoluminescence spectroscopy on metal precipitates in silicon. *Phys. Status Solidi*, **1**, 1-3.

Gundel P., Schubert M. and Warta W. (2009) Simultaneous stress and defect luminescence study on silicon. *Phys. Status Solidi*, **A**, 1-6.

Hermelink A., Brauer A., Lasch P. and Naumann D. (2009) Phenotypic heterogeneity within microbial populations at the single-cell level investigated by Confocal Raman microspectroscopy. *The Royal Society of Chemistry*, **134**, 1149-1149.

- Huang Y-C., Liao Y-C., Li S-S., Wu M-C., Chen C-W. and Su W-F. (2009) Study of the effect of annealing process on the performance of P3HT/PCBM photovoltaic devices using scanning-probe microscopy. *Solar Energy Materials & Solar Cells*, **93**, 888-892.
- Huang Y.Y., Beal C.M., Cai W.W., Ruoff R.S. and Terentjev E.M. (2009) Micro-Raman Spectroscopy of Algae: Composition Analysis and Fluorescence Background Behavior. *Biotechnology and Bioengineering*, **105**, 889-898.
- Jenniskens P., Shaddad M.H., Numan D., Elsir S., Kudoda A.M., Zolensky M.E., Le L., Robinson G.A., Friedrich J.M., Rumble D., Steele A., Chesley S.R., Fitzsimmons A., Duddy S., Hsieh H.H., Ramsay G., Brown P.G., Edwards W.N. Edwards, Tagliaferri E., Boslough M.B., Spalding R.E., Dantowitz R., Kozubal M., Pravec P., Borovicka J., Charvat Z., Vaubaillon J., Kuiper J., Albers J., Bishop L., Mancinelli R.L., Sandford S.A., Milam S.N., Nuevo M. and Worden S.P. (2009) The impact and recovery of asteroid 2008 TC3, *Nature*, **458**, 485-488.
- Kim K.S., Zhao Y., Jang H., Lee S.Y., Kim J.M., Kim K.S., Ahn J-H., Kim P., Choi J-Y and Hong B.H. (2009) Large-scale pattern growth of grapheme films for stretchable transparent electrodes. *Nature*, **457**, 706-710.
- Kloc C., Tan K.J., Toh M.L., Zhang K.K. and Xu Y.P. (2009) Purity of rubrene single crystals. *Applied Physics A*, **95**, 219-224.
- Kuykendall T., Aloni S., Plante I.J-L. and Mokari T. (2009) Growth of GaN@InGaN Core-Shell and Au-GaN Hybrid Nanostructures for Energy Applications. *Hindawi Publishing Corporation*, Article ID 767951.
- Kwapil W., Gundel P., Schubert M. C., Heinz F. D., Warta W., Weber E. R., Goetzberger A. and Martinez-Criado. (2009) Observattion of metal precipitates at prebreakdown sitec in multicrystalline silicon solar cells. *Appl. Physics Letters*, **95**, 23113pp.
- Kwapil W., Kasemann M., Gundel P., Schubert M. C., Warte W., Bronsveld P. and Coletti G. (2009) Diode breakdown related to recombination active defects in block-cast multicrystalline silicon solar cells. *Journal of Applied Physics*, **106**, 063530pp.
- Lasch P., Hermelink A. and Naumann D. (2009) Correction of axial chromatic aberrations in confocal Raman microspectroscopic measurements of a single microbial spore. *The Analyst*, 1-9.
- Lopez F.J., Hemesath E.R. and Lauhon L.J. (2009) Ordered Stacking Faukt Arrays in Silicon Nanowires. *Nano Letters*, **9**, 2774-2779.
- Mahieu-Williame L., Falgayrettes P., Nativel L., Gall-Borrut P., Costa L., Salehzada T. and Bisbal C. (2009) Near-field microscopy and fluorescence spectroscopy: application to chromosomes labeled with different fluorophores. *Journal of Microscopy*, 1-8.
- Majed N., Matthäuse C., Diem M. and Gu A.Z. (2009) Evaluation of Intercellular Polyphosphate Dynamics in Enhanced Biological Phosphorus Removal Process using Raman Microscopy. *Environ. Scie. Technol.*, **43**, 5436-5442.
- Nagpal P., Lindquist N.C., Oh S.H. and Norris D.J. (2009) Ultrasmooth Patterned Metals for Plasmonics and Metamaterials. *SCIENCE*, **325**, 594-597.

Parussulo A.L.A., Bonacin J.A., Toma S.H., Araki K. and Toma H.E. (2009) Unravelling the Chemical Morphology of a Mesoporous Titanium Dioxide Interface by Confocal Raman Microscopy: New Clues for Improving the Efficiency of Dye Solar Cells and Photocatalysts. *Langmuir*, **25**, 11269-11271.

Peter D., Dalmer M., Kruwinus H., Lechner A., Archer L., Gaulhofer E., Gigler A.M., Stark R.W. and Bensch W. (2009) Measurement of the mechanical stability of semiconductor line structures in relevant media. *ECS Transactions*, **16**, 13-21.

Ramirez M. O., Kumar A., Denev S.A., Chu Y.H., Seidel J., Martin L.W., Yang S.-Y., Rai R.C., Xue X.S., Ihlefeld J.F., Podraza N.J., Saiz E., Lee S., Klug J., Cheong S.W., Bedzyk M.J., Auciello O., Schlom D.G., Orenstein J., Ramesh R., Musfeldt J.L., Litvinchuk A.P. and Gopalan V. (2009) Spin-charge-lattice coupling through resonant multimagnon excitations in multiferroic BiFeO₃. *Appl. Physics Letters*, **94**, 161905pp.

Schmidt M., Schwartzberg A.M., Perera P.N., Weber-Bargioni A., Carroll A., Sarkar P., Bosneaga E., Urban J.J., Song J., Balakshin M.Y., Capanema E.A., Auer M., Adams P.D., Chiang V.L. and Schuck J. P. (2009) Label-free in situ imaging of lignifications in the cell wall of low lignin transgenic *Populus trichocarpa*. *Planta*, **230**, 589-597.

Sharma C.S., Kulkarni M.M., Sharma A. and Madou M. (2009) Synthesis of carbon xerogel particles and fractal-like structures. *Chemical Engineering Science*, **64**, 1536-1543.

Singamaneni S., Gupta M., Yang R., Tomczak M.M., Naik R.R., Wang Z.L. and Tsukruk V.V. (2009) Nondestructive In Situ Identification of Crystal Orientation of Anisotropic ZnO Nanostructures. *ACS Nano*, **3**, 2593-2600.

Verslegers L., Catrysse P. B., Yu Z., White J.S., Barnard E.S., Brongersma M.L. and Fan S. (2009) Planar Lenses Based on Nanoscale Slit Arrays in a Metallic Film. *Nano Letters*, **9**, 235-238.

Wei W., Li S., Millstone E., Banholzer M.J., Chen X., Xu X., Schatz G.C. and Mirkin C.A. (2009) Surprisingly Long-Range Surface-Enhanced Raman Scattering (SERS) on Au-Ni Multisegmented Nanowires. *Angew. Chem. Int. Ed.*, **48**, 4210-4212.

Weiss K-A., Kaltenbach T., Peike C., Köhl M., Lichtblau A. and Zäh Matthias (2009) Systematic evaluation of different stress factors onto the degradation behaviour of plastics. Abstract for: *Conference Book at 4th European Weathering Symposium in Budapest*, **177**, ISBN-No.: 978-3-9810472-8-8.

Wood B.R., Hermelink A., Lasch P., Bambery K.R., Webster G.T., Khiavi M.A., Cooke B.M., Deed S., Naumann D. and McNaughton D. (2009) Resonance Raman microscopy in combination with partial dark-field microscopy lights up a new path in malaria diagnostics. *The Royal Society of Chemistry*, **134**, 1119-1125.

Wu M-C., Lo H-H., Liao H-C, Chen S., Lin Y-Y., Yen W-C., Zeng T-W., Chen Y-F., Chen C-W. and Su W-F. (2009) Using scanning probe microscopy to study the effect of molecular weight of poly (3-hexylthiophene) on the performance of poly (3-hexylthiophene): TiO₂ nanorod photovoltaic devices. *Solar Energy Materials & Solar Cells*, **93**, 869-873.

Yan B., Liao L., You Y., Xu X., Zheng Z., Shen Z., Ma J., Tong L. and Yu T. (2009) Single-Crystalline V₂O₅ Ultralong Nanoribbon Waveguides. *Advanced Materials*, **21**, 2436-2440.

Yan B., Zheng Z., Zhang J., Gong H., Shen Z., Huang W. and Yu T. (2009) Orientation Controllable Growth of MoO₃ Nanoflakes: Micro-Raman, Field Emission, and Birefringence Properties. *J. Phys. Chem*, **113**, 20259-20263.

Yang D., Velamakanni A., Bozoklu G., Park S., Stoller M., Piner R.D., Stankovich S., Jung I., Field D.A., Ventrice C.A. Jr. and Ruoff R. (2009) Chemical analysis of graphene oxide films after heat and chemical treatments by X-ray photoelectron and Micro-Raman spectroscopy. *Carbon*, **47**, 145-152.

Zheng G., Chen X. and Mirkin C.A. (2009) Complementary Electrical and Spectroscopic Detection Assays with On-Wire-Lithography-Based Nanostructures**. *Small*, **22**, 2537-2540.

2008

Balss K.M., Long F.H., Veselov V., Orana A., Akerman-Revis E., Papandreou G. and Maryanoff C.A. (2008) Multivariate Analysis Applied to the Study of Spatial Distributions Found in Drug-Eluting Stent Coatings by Confocal Raman Microscopy. *Analytical Chemistry*, **80**, 4853-4859.

Banholzer M.J., Li S., Ketter J.B., Rozkiewics D.I., Schatz G. and Mirkin Chad A. (2008) Electrochemical Approach to and the Physical Consequences of Preparing Nanostructures from Gold Nanorods with Smooth Ends. *J. Phys. Chem.*, **112**, 15729-15734.

Banholzer M.J., Millstone J.E., Qin L. and Mirkin C.A. (2008) Designing nanostructures with optimized surface-enhanced Raman scattering behavior. *SPIE*, 10.1117/2.1200804.1092.

Bauer M., Gigler A., Huber A.J., Hillenbrand R. and Stark R.W. (2008) Temperature-dependent Raman line-shift of silicon carbide, *J. Raman Spectrosc.*, **40**, 1867-1874.

Bauer M., Gigler A.M., Richter C. and Stark R.W. (2008) Visualizing stress in silicon micro cantilevers using scanning confocal Raman spectroscopy. *Microelectronic Engineering*, **85**, 1443-1446.

Belu A., Mahoney C. and Wormuth K. (2008) Chemical imaging of drug eluting coatings: Combining surface analysis and confocal Raman microscopy. *Journal of Controlled Release*, **126**, 111-121.

Biagioni P., Della Valle G., Ornigotti M., Finazzi M., Duo L., Laporta P. and Longhi S. (2008) Experimental demonstration of the optical Zeno effect by scanning tunneling optical microscopy. *Optical Society of America*, **16**, 3762.

Cejas M.A., Kinney W.A., Chen C., Vinter J.G., Almond H.R.Jr., Balss K.M., Maryanoff C.A., Schmidt U., Breslav M., Mahan A., Lacy E. and Maryanoff B.E. (2008) Thrombogenic collagen-mimetic peptides: Self-assembly of triple helix-based fibrils driven by hydrophobic interactions. *PNAS*, **105**, 8513-8518.

Das A., Chakraborty B. and Sood A.K. (2008) Raman spectroscopy of graphene on different substrates and influence of defects. *Indian Academy of Sciences*, **31**, 579-584.

- Dieing T. and Hollricher O. (2008) High-resolution, high-speed confocal Raman imaging. *Vibrational Spectroscopy*, **48**, 22-27.
- Fries M. and A. (2008) Graphite Whiskers in CV3 meteorites. *Science*, **320**, 91-93.
- Gierlinger N., Sapei L. and Paris O. (2008) Insights into the chemical compositions of Equisetum hyemale by high resolution Raman imaging. *Planta*, **227**, 969-980.
- Hild S., Marti O. and Ziegler A. (2008) Spatial distribution of calcite and amorphous calcium carbonate in the cuticle of the terrestrial crustaceans Porcellio scaber and Armadillidium vulgare. *Journal of Structural Biology*, **163**, 100-108.
- Hu F.P., Shen P.K., Li Y.L., Wu J., Bao Q.L., Li C.M. and Wei Z.D. (2008) Highly Stable Pd-Based Catalytic Nanoarchitectures for Low Temperature Fuel Cells. *Fuel Cells*, 429-435.
- Kasim J., Ting Y., Meng Y.Y., Ping L.J., See A., Jong L.L and Xiand S.Z. (2008) Near-field Raman imaging using optically trapped dielectric microsphere. *Optics Express*, **16**, 7976.
- Kelzenberg M.D., Turner-Evans D.B., Kayes B.M., Filler M.A., Putnam M.C., Lewis N.S. and Atwater H.A. (2008) Photovoltaic Measurements in Single-Nanowire Silicon Solar Cells. *Nano Letters*, **8**, 710-714.
- Kingsley J. W., Ray S. K., Adawi A. M., Leggett G. and Lidzey D. G. (2008) Optical nanolithography using a scanning near-field probe with an intergrated light source. *Applied Physics Letters*, **93**, 213103 pp.
- Kumar P., Das H.C., Anbazhagan K., Lu H. and Ripmeester J.A. (2008) Structural characterization of natural gas hydrates in core samples from offshore India, *6th International Conference on Gas Hydrates (ICGH 2008) Vancouver, Canada. July 6-10, 2008.*
- Marti O., Holzwarth M. and Beil M. (2008) Measuring the nanomechanical properties of cancer cells by digital pulsed force mode imaging. *Nanotechnology*, **19**, 384015 pp.
- Matthäus C., Chernenko T., Quintero L., Milan L., Kale A., Amiji M., Torchilin V. and Diem M. (2008) Raman microscopic imaging of cells and applications monitoring the uptake of drug delivery systems. *Proc. of SPIE*. **6991**, 699106pp.
- Matthäus C., Kale A., Chernenko T., Torchilin V., Diem M., (2008) New Ways of Imaging Uptake and Intracellular Fate of Liposomal Drug Carrier Systems inside Individual Cells, Based on Raman Microscopy. *Molecular Pharmaceutics*, **5**, 287-293.
- Ni Z.H., Chen W., Fan X.F., Kuo J.L., Yu T., Wee A.T.S. and Shen Z.X. (2008) Raman spectroscopy of epitaxial graphene on a SiC substrate. *Physical Review*, **77**, 115416pp.
- Ni Z.H., Wang H.M., Ma Y., Kasim J., Wu Y.H. and Shen Z.X. (2008) Tunable Stress and Controlled Thickness Modification in Graphene by Annealing. *American Chemical Society Nano*, **5**, 1033-1039.
- Ni Z., Wang Y. and Shen Z. (2008) Raman Spectroscopy and Imaging of Graphene. *Nano Research*, **1**, 273-291.

Ni Z., Wang Y., Y. Ting., You Y. and Shen Z. (2008) Reduction of Fermi velocity in folded graphene observed by resonance Raman spectroscopy. *Physical Review*, **77**, 235403pp.

Pätzold R., Keuntje M., Theophile K., Müller J., Mielcarek E., Ngezahayo A., Anders-von Ahlften A. (2008) In situ mapping of nitrifiers and anammox bacteria in microbial aggregates by means of confocal resonance Raman microscopy. *Journal of Microbiological Methods*, **72**, 241-248.

Ramirez M. O., Wisdom J., Li H., Aung Y.L., Stitt J., Messing G.L., Dierolf V., Liu Z., Ikesue Ak. Byer R.L. and Gopalan V. (2008) Three-dimensional grain boundary spectroscopy in transparent high power ceramic laser materials. *Optics Express*, **16**, 5965-5973.

Rotundi A., Baratta G., Borg J., Brucato J., Busemann H., Colangeli L., D`Hendecourt L., Djouadi Z., Ferrini G., Franchi I., Fries M., Grossemy F., Keller L., Mennella V., Nakamura K., Nittler L., Palumbo M., Sandford A., Steele A. and Wopenka B. (2008) Combined micro-Raman, micro-infrared, and emission scanning electron microscope analyses of comet 81P/Wild 2 particles collected by Stardust. *Meteoritics & Planetary Science*, **43**, 367-397.

Stampfer C., Güttinger J., Molitor F., Graf D., Ihn T. and Esslin K. (2008) Tunable Coulomb blockaden in nanostructured graphene. *Applied Physics Letters*, **92**, 012102pp.

Sundarajan S.P., Grady N., Mirin N. and Halas N.J. (2008) Nanoparticle-Induced Enhancement and Suppression of Photocurrent in a Silicon Photodiode. *Nano Letters*, **8**, 624-630.

Takala M., Karttunen M., Kortet S., Salovaara P. and Kannus K. (2008) Dielectric Properties of Nanostructured Polypropylene-Polyhedral Oligomeric Silsesquioxane Compounds. *IEEE Transactions*, **15**, 40-51.

Teschke O., De Souza E.F., Silva-Stenico M.E., Fiore M.D.F. and Etchegaray A. (2008) Quorum Sensing Detected by Atomic Force Microscopy Imaging of Corrals Surrounding Multicellular Arrangement of Bacteria. *Microscopy Research and Technique*, **71**, 112-118.

Verhagen E., Dionne J.A., Kuipers L., Atwater H.A. and Polman A. (2008) Near-field Visualization of Strongly Confined Surface Plasmon Polaritons in Metal-Insulator-Metal Waveguides. *NanoLetters*, **8**, 2925-2929.

Verhagen E., Polman A. and Kuipers L. (Kobus) Nanofocusing in laterally tapered plasmonic waveguides. (2008) *Optics Express*, **16**, 45-57.

Wang Y.Y., Ni Z.H., Yu T., Shen Z.X., Wang H.M., Wu Y.H., Chen W. and Wee T.S. (2008) Raman Studies of Monolayer Graphene: The Substrate Effect. *J. Phys. Chem.*, **112**, 10637-10640.

Wang Y.Y., Ni Z.H., Shen Z.X., Wang H.M. and Wu Y.H. (2008) Interference enhancement of Raman signal of graphene. *Applied Physics Letters*, **92**, 043121pp.

Ward D.R., Halas N.J. Ciszek J.W., Tour J.M., Wu Y., Nordlander P. and Natelson D. (2008) Simultaneous Measurements of Electronic Conduction and Raman Response in Molecular Junctions. *Nano Letters*, **8**, 919-924.

Wei W., Li S., Qin L., Xue C., Millstone J.E., Xu X., Schatz G.C. and Mirkin C.A. (2008) Surface Plasmon-Mediated Energy Transfer in Heterogap Au-Ag Nanowires. *Nano Letters*, **8**, 3446-3449.

Weishaupt K., Schmidt Ut., Dieing T. and Hollricher O. (2008) Towards Automation in the Characterization of Nano-Structured Materials and Devices. *NIST*, **1**, 325-328.

Withers A.C. and Hirschmann M.M. (2008) Influence of temperature, composition, silica activity and oxygen fugacity on the H₂O storage capacity of olivine at 8 GPa. *Contrib. Mineral Petrol*, **156**, 595-605.

Witte W., Kniese R. and Powalla M. (2008) Raman investigations of Cu (In,Ga) Se² thin films with various copper contents. *Thin Solid Films*, **517**, 867-869.

You Y.M., Ni Z.H., Yu T. and Shen Z.X. (2008) Edge chirality determination of graphene by Raman spectroscopy. *Applied Physics Letters*, **93**, 163112pp.

You Y.M., Yu T., Kasim J., Song H., Fan X.F., Ni Z.H., Cao L.Z., Jiang H., Shen D.Z., Kuo J.L. and Shen Z.X. (2008) Visualization and investigation of Si-C covalent bonding of single carbon nanotube grown on silicon substrate. *Applied Physics Letters*, **93**, 103111pp.

Yu T., Ni Z., Du C., You Y., Wang Y. and Shen Z. (2008) Raman Mapping Investigation of Graphene on Transparent Flexible Substrate: The Strain Effect. *The Journal of Physical Chemistry Letters*, **112**, 12602-12605.

Zavelani-Rossi M., Celebrano M., Biagioni P., Polli D., Finazzi M., Duo L., Cerullo G., Labardi M., Allegrini M., Grand J. and Adam P.-M. (2008) Near-field second-harmonic generation in single gold nanoparticles. *Applied Physics Letters*, **92**, 093119.

Zheng G., Qin L. and Mirki C.A. (2008) Spectroscopically Enhancing Electrical Nanotraps. *Angew. Chem. Int. Ed.*, **47**, 1938-1941.

2007

Agostinelli T., Caironi M., Natali D., Sampietro M., Biagioni P., Finazzi M. and Duo L. (2007) Space charge effects on the active region of a planar organic photodetector. *Journal of Applied Physics*, **101**, 114504.

Balss K.M., Llanos G., Papandreou G. and Maryanoff C.A. (2007) Quantitative spatial distribution of sirolimus and polymers in drug-eluting stents using confocal Raman microscopy. *Journal of Biomedical Materials Research Part A*, 258-270.

Bao Q., Bao A., Li C.M., Qi X., Pan C., Zang J., Wang W. and Tang D.Y. (2007) Lithium Insertion in Channel-Structured β -AgVO₃: In Situ Raman Study and Computer Simulation. *Chemical Materials*, **19**, 5965-5972.

Biagioni P., Celebrano M., Zavelani-Rossi M., Polli D., Labardi M., Lanzani G., Cerullo G., Finazzi M. and Duo L. (2007) High-resolution imaging of local oxidation in polyfluorene thin films by nonlinear near-field microscopy. *Applied Physics Letters*, **91**, 191118.

Busemann H., O`D. Alexander C. and Nittler L. (2007) Characterization of insoluble organic matter in primitive meteorites by microRaman spectroscopy. *Meteoritics & Planetary Science*, **42**, 1387.

Chao J.I., Perevedentseva E., Chung P.-H., Liu K.-K., Cheng C.-Y., Chang C.-C. and Cheng C.-L. (2007) Nanometer-Sized Diamond Particles as a Probe for Biolabeling. *Biophysical Journal*, **93**, 2199-2208.

Cheng C.-L., Ma Y.-R., Chou M.H., Huang C.Y., Yeh V. and Wu S.Y. (2007) Direct observation of short-circuit diffusion during the formation of a single cupric oxide nanowire. *IOP Publishing Ltd. Nanotechnology*, **18**, 245604.

Cheng C.-Y., Perevedentseva E., Tu J.-S., Chung P.-H., Cheng C.-L., Liu K.-H., Chao J.-I., Chen P.-H. and Chang C.-C. (2007) Direct and in vitro observation of growth hormone receptor molecules in A549 human lung epithelial cells by nanodiamond labeling. *Applied Physics Letters*, **90**, 16390399.

Chen Y., Stevenson I., Pouy R., Wang L., McIlroy D.N., Pounds T., Norton M.G. and Aston D.E. (2007) Mechanical elasticity of vapour-liquid-solid grown GaN nanowires. *Nanotechnology*, **18**, 135708pp.

De Gelder J., De Gussem K., Vandenabeele P. and Moens L. (2007) Reference database of Raman spectra of biological molecules. *Journal of Raman Spectroscopy*, **38**, 1133-1147.

Della Valle G., Longhi S., Laporta P., Biagioni P., Duo L. and Finazzi M. (2007) Discrete diffraction in waveguide arrays: A quantitative analysis by tunneling optical microscopy. *Applied Physics Letters*, **90**, 261118.

Diakowski P. and Ding Z. (2007) Interrogation of living cells using alternating current scanning electrochemical microscopy (AC-SECM). *Physical Chemistry Chemical Physics*, **9**, 5966-5974.

Farcau C. and Astilean S. (2007) Probing the unusual optical transmission of silver films deposited on two-dimensional regular arrays of polystyrene microspheres. *Journal of Optics*, **9**, 345-349.

Gierlinger N. and Schwamminger M. (2007) The potential of Raman microscopy and Raman imaging in plant research. *Spectroscopy*, **21**, 69-89.

Gierlinger N., Sapei L. and Paris O. (2007) Insights into the chemical composition of *Equisetum hyemale* by high resolution Raman imaging. *Planta*, **227**.

Gigler A., Holzwarth M. and Marti O. (2007) Local nanomechanical properties of HeLa-cell surfaces. *Journal of Physics: Conference Series*, **61**, 780-784.

Govorov A. and Richardson H. (2007) Generating heat with metal nanoparticles. *Nanotoday*, **2**, 30.

Graf D., Molitor F., Ensslin K., Stampfer C., Jungen A., Hierold C. and Wirtz L. (2007) Raman imaging of graphene. *Solid state communications*, **143**, 44-46.

Graf D., Molitor F., Ensslin K., Stampfer C., Jungen A., Hierold C. and Wirtz L. (2007) Raman mapping of a single-layer to double-layer graphene transition. *The European Physical Journal Special Topics*, **148**, 171-176.

Graf D., Molitor F., Ensslin K., Stampfer C., Jungen A., Hierold. and Wirtz L. (2006) Spatially Resolved Raman Spectroscopy of Single- and Few-Layer Graphene. *Nano Letters*, **7**, 238-242.

Hulst van N.F. (2007) Light in chains. *Nature*, **448**, 141-142.

Hollricher O., Fischer H., Jauss A. and Dieing T. (2007) Ultrafast Confocal Raman Imaging – Acquiring Spectra in a Few Milliseconds with Improved Sensitivity. *G.I.T. Imaging & Microscopy*, 4/2007, 34-35.

Jungen A., Hofmann Stephan, Meyer J.C., Stampfer C., Roth S., Robertson J. and Hierold C. (2007) Synthesis of individual single-walled carbon nanotube bridges controlled by support micromachining. *Journal of Micromechanics and Microengineering*, **17**, 603-608.

Jungen A., Popov V.N., Stampfer C., Durrer C., Stoll S. and Hierold C. (2007) Raman intensity mapping of single-walled carbon nanotubes. *Physical Review*, **75**, 041405pp.

Jungen A., Stampfer C., Durrer L., Helbing T. and Hierold C. (2007) Amorphous carbon contamination monitoring and process optimization for single-walled carbon nanotube integration. *Institute of Physics Publishing Nanotechnology*, **18**, 075603pp.

Karmenyan A., Perevedentseva, Chiou A. and Cheng C.-L. (2007) Positioning of Carbon nanostructures on metal surfaces using laser acceleration and the Raman analyses of the patterns. *Journal of Physics*, **61**, 513-517.

Kiowski O., Lebedkin S., Hennrich F., Malik S., Rösner H., Arnold K., Sürgers C. and Kappes M.M. (2007) Photoluminescence microscopy of carbon grown by chemical vapor deposition: Influence of external dielectric screening on optical transition energies. *Physical Review*, **75**, 075421pp.

Kwon S.J., Jeong Y.M. and Jeong S.H. (2007) Fabrication of high-aspect-ratio silico nanostructures using near-field scanning optical lithography and silicon anisotropic wet-etching process. *Appl.Phys.* **86**, 11-18.

Lugstein A., Schoendorfer C., Weil M., Jauss A. and Bertagnolli E. (2007) Study of focused ion beam response of GaSb. *NIMB-Beam Interactions with Materials & Atoms*, **255**, 309-313.

Matthäus C., Chernenko T., Newmark J.A., Warner C.M. and Diem M. (2007) Label-Free Detection of Mitochondrial Distribution in Cells by Nonresonant Raman Microspectroscopy. *Biophysical Journal*, **93**, 668-673.

Ni Z.H., Wang H.M., Kasim J., Fan H.M., Yu T., Wu Y.H., Feng Y.P. and Shen Z.X. (2007) Graphene thickness determination using reflection and contrast spectroscopy. *NanoLetter*, **7**, 2758-2763.

Perevedentseva E., Cheng C.-Y., Chung P.-H., Tu J.-S., Hsieh Y.-H. and Cheng C.-L. (2007) The interaction of the protein lysozyme with bacteria E. coli observed using nanodiamond labeling. *Nanotechnology*, **18**, 315102pp.

Piotr M., Diakowski P.M. and Ding Z. (2007) Watching cells in action. *Physical Chemistry Chemical Physics*, **9**, 5966.

Qin L., Banholzer J., Millstone J.E., and Kirkin C.A. (2007) Nanodisk Codes. *American Chemical Society*, **12**, 3849-3853.

Rakhi R.B., Sethupathi K. and Ramaprabhu S. (2007) Effect of Purity and Substrate on Field Emission Properties of Multi-walled Carbon Nanotubes. *Nanoscale Research Letters*, **2**, 331-336.

Scalfi-Happ C., Jauss A., Hollricher O., Fulda S., Hauser C., Steiner R. and Rück A. (2007) Confocal Raman Microscopy for Investigation of the Level of Differentiation in living Neuroblastoma Tumor Cells. *SPIE-OSA*, **6630**, 66300pp.

Scalfi-Happ C., Jauss A., Ibach W., Hollricher O., Fulda S., Hauser C., Steiner R. and Rück A. (2007) Confocal Raman microscopy as a diagnostic tool for investigation of living neuroblastoma tumour cells. *Medical Laser Application*, **22**, 157-164.

Schmidt U., Ibach W., Mueller J. and Hollricher O. (2007) The confocal Raman AFM A powerful tool for the characterization of surface coatings. *SPIEProc.*, **6616 pt. 1**, 66160E-1.

Schmidt U., Vargas F., Kress M., Dieing T., Weishaupt K. and Hollricher O. (2007) Confocal Raman AFM – A Powerful Tool for the Nondestructive Characterization of Heterogeneous Materials. *Nanotech.*, **4**, 48-51.

Stampfer C., Bürli A., Jungen A. and Hierold C. (2007) Raman imaging for processing and process monitoring for nanotube devices. *Physica Status Solidi*, **244**, 4341-4345.

Stampfer C., Molitor F., Graf D. and Ensslin K. (2007) Raman imaging of doping domains in graphene on SiO₂. *Applied Physics Letters*, **91**, 241907pp.

Steele A., Fries M.D., Amundsen H.E.F., Mysen B.O., Fogel M.L., Schweizer M. and Boctor N. (2007) Comprehensive imaging and Raman spectroscopy of carbonate globules from Martian meteorite ALH 84001 and a terrestrial analogue from Svalbard. *Meteoritics and Planetary Science*, **42**, 1549-1566.

Subramaniam C. and O'Connell M.J. (2007) Glowing future for nanotubes. *Royal Society of Chemistry*, **4**.

Teschke O. and de Souza E.F. (2007) Line tension at high contact angle wetting: Contribution to interfacial energy at long distances (>100Å) from the triple line contour. *Chemical Physics Letters*, **447**, 379-383.

Ube T., Aoki H., Ito S., Horinaka J. and Takigawa T. (2007) Conformation of single PMMA chain in uniaxially stretched film studied by scanning near-field optical microscopy. *Polymer*, **48**, 6221-6225.

Verhagen E., Kuipers L. and Polman A. (2007) Enhanced Nonlinear Optical Effects with a Tapered Plasmonic Waveguide. *Nano Letters*, **7**, 334-337. Keywords: none; (SNOM)

Vicenzi E. P., Fries M., Fahey A., Rost D., Greenwood J. P. and Steele A. (2007) Detailed Elemental, Mineralogical, and Isotopic Examination of Jarosite in Martian Meteorite Mil 03346. *Lunar and Planetary Science*, **XXXVIII**, 2335.

Vijayaraghavan A., Blatt S., Weissenberger D., Oron-Carl M., Hennrich F., Gerthsen D., Hanh H. and Krupke R. (2007) Ultra-Large-Scale Directed Assembly of Single-Walled Carbon Nanotubes Devices. *Nano Letters*, **7**, 1556-1560.

Waele de R., Koenderink A.F. and Polman A. Tunable Nanoscale Localization of Energy on Plasmon Particle Arrays. (2007) *Nano Letters*, **7**, 2004-2009.

Wang B., Wang M., Zhang H., Sobal N.S., Tong W., Gao C., Wang Y., Giersig M., Wang D. and Möhwald H. (2007) Stepwise interfacial self-assembly of nanoparticles via specific DANN pairing. *Physical Chemistry Chemical Physics*, DOI 10.1039/b705094a.

Wang F., Feng J., Tong W. and Gao C. (2007) A facile pathway to fabricate microcapsules by in situ polyelectrolyte coacervation on poly(styrene sulfonate)-doped CaCo³ particles. *Journal of Materials Chemistry*, **17**, 670-676.

Wang F., Zhou X., Zhou J., Sham T.-K. and Ding Z. (2007) Observation of Single Tin Dioxide Nanoribbons By Confocal Raman Microspectroscopy. *American Chemical Society*, **111**, 18839-18843.

Wermelinger T., Borgia C., Solenthaler C. and Spolenak R. (2007) 3-D Raman spectroscopy measurements of the symmetry of residual stress fields in plastically deformed sapphire crystals. *Acta Materialia*, **55**, 4657-4665.

Yang J., Sekine R., Aoki H. and Ito S. (2007) Localization and Orientation of Homopolymer in Block Copolymer Lamella: A Near-Field Optical Microscopy Study. *Macromolecules*, **40**, 7573-7580, 40.

Yu L., Li C.M., Gan Y. and Bao Q.L. (2007) Functionalized multi-walled carbon nanotubes as affinity ligands. *Nanotechnology*, **18**, 115614pp.

Zhao X., Petersen N.O. and Ding Z. (2007) Comparison study of live cells by atomic force microscopy, confocal microscopy, and scanning electrochemical microscopy. *Canadian Journal of Chemistry*, **85**, 175-183.

ZIA R. and Brongersma M.L. (2007) Surface plasmon polariton analogue to Young's double-slit experiment. *Nature Nanotechnology*, **2**, 426-429.

Zinin P.V., Huss G.R., Sharma S.K., Krot A.N. and Bonal L. (2007) Raman Spectroscopic Study of Roosevelt County (RC) 075 Chondrite. *Lunar and Planetary Science*, **XXXVIII**, 2223.

2006

Buzzini P., Massonnet G. and Sermier F.M. (2006) The micro Raman analysis of paint evidence in criminalistics: case studies. *Journal of Raman Spectroscopy*, **37**, 922-931.

Chou P.-W., Trechev S., Chung P.-H. and Cheng C.-L. (2006) Observation of carbon-containing nanostructured mixed titania phases for visible-light photocatalysts. *Applied Physics Letters*, **89**, 131919pp.

- Cui J. and Gibson U. (2006) Thermal modification of magnetism in cobalt-doped ZnO nanowires grown at low temperatures. *Physics Review B*, **74**, 045416pp.
- Fries M., Rost D., Vicenzi E. and Steele A. (2006) Raman Imaging analysis of Jarosite in Mil 03346. *Lunar and Planetary Science, 7060 pdf*. (Martian Sulfates as Recorders of Atmospheric-Fluid-Rock Interactions (2006).
- Furube A., Tamaki Y. and Katoh R. (2006) Transient absorption measurement of organic crystals with femtosecond-laser scanning microscopes. *Journal of Photochemistry and Photobiology*, **183**, 253-260.
- Gigler A., Gnahn C., Marti O., Schimmel T. and Walheim S. (2006) Towards Quantitative Materials Characterization with Digital Pulsed Force Mode Imaging. *Journal of Physics*, **61**, 346-351.
- Gierlinger N. and Burgert I. (2006) Secondary cell wall polymers studied by Confocal Raman microscopy: Spatial distribution, orientation and molecular deformation. *New Zealand Journal of Forestry Science*. **36**, 60-71.
- Gierlinger N. and Schwanninger M. (2006) Chemical Imaging of Poplar Wood Cells Walls by Confocal Raman Microscopy. *American Society of Plant Biologists*, **140**, 1246-1254.
- Gierlinger N., Schwanninger M., Reinecke A. and Burgert I. (2006) Molecular changes during tensile deformation of single wood fibers followed by Raman microscopy. *Biomacromolecules*, **7**, 2077-2081.
- Giordani S., Bergin S., Nicolosi V., Lebedkin S., Blau W.J. and Coleman J.N. (2006) Fabrication of stable dispersion containing up to 70% individual carbon nanotubes in a common organic solvent. *Phys. Stat. Sol.*, **243**, 3058-3062.
- Graf D., Molitor F., Ensslin K., Stampfer C., Jungen A., Hierold C. and Wirtz L. (2006) Spatially Resolved Raman Spectroscopy of Single- and Few-Layer Graphene. *Nano Letters*, **7**, 238-242.
- Holzwarth M. J., Gigler A.M. and Marti O. (2006) Digital Pulsed Force Mode – Determining Local Mechanical Properties of HeLa Cells. *G.I.T. Imaging & Microscopy*, **4**, 37-38.
- Jungen A., Pfenninger M., Tonteling M., Stampfer C. and Hierold C. (2006) Electrothermal effects at the microscale and their consequences on system design. *Journal of Micromechanics and Microengineering*, **16**, 1633-1638.
- Jungen A., Stampfer C., Durrer L., Helbling T. and Hierold C. (2006) A method for enhanced analysis of specific as-grown carbon nanotubes. *Physica Status Solidi b*, **13**, 3138-3141.
- Jungen A., Stampfer C. and Hierold C. (2006) Thermography on a suspended microbridge using confocal Raman scattering. *Applied Physics Letters*, **88**, 191901pp.
- Kalkman J., Tchegotareva A., Polman A., Kippenberg T.J., Min B. and Vahala K.J. (2006) Fabrication and characterization of erbium-doped toroidal microcavity lasers. *Journal of Applied Physics*, **99**, 083103pp.

- Kazanci M., Roschger P., Paschalis E.P., Klaushofer K. and Fratzl P. (2006) Bone osteonal tissues by Raman spectral mapping: Orientation-composition. *Journal of Structural Biology*, **156**, 489-496.
- Krupke R., Linden S., Rapp M. and Hennrich F. (2006) Thin Films of Metallic Carbon Nanotubes Prepared by Dielectrophoresis. *Advanced Materials*, **18**, 1468-1470.
- Lebedkin S., Arnold K., Kiowski O., Hennrich F. and Kappes M. (2006) Raman study of individually dispersed single-walled carbon nanotubes under pressure. *Physical Review B*, **73**, 094109pp.
- Matthäus C., Boydston-White S., Miljovic M., Romeo M. and Diem M. (2006) Raman and Infrared Microspectral Imaging of Mitotic Cells. *Appl. Spectroscopy*, **60**, 1-8.
- Österberg M., Schmidt U. and Jääskeläinen A.-S. (2006) Combining confocal Raman spectroscopy and atomic force microscopy to study wood extractives on cellulose surfaces. *Colloids and Surfaces*, **291**, 197-201.
- Pätzold R., Keuntje M. and Anders-von Ahlften A. (2006) A new approach to non-destructive analysis of biofilms by confocal Raman microscopy. *Anal Bioanal Chem.*, **386**, 286-292.
- Qin L., Zou S., Xue C., Atkinson A., Schatz G.C. and Mirkin C.A. (2006) Designing, fabricating, and imaging Raman hot spots. *PNAS*, **103**, 13300-13303.
- Richardson H.H., Hickmann Z.N., Govorov A.O., Thomas A.C., Zhang W. and Kordesch M.E. (2006) Thermo-optical Properties of Gold Nanoparticles Embedded in Ice: Characterization of Heat Generation and Melting. *Nano Letters*, **22**, A-F.
- Sandford S.A. and 54 other authors (2006) Organics captured from Comet 81P/Wild 2 by the Stardust spacecraft. *Science*, **314**, 1720-1724.
- Schmidt U., Ibach W., Müller J., Weishaupt K. and Hollricher O. (2006) Raman spectral imaging—A nondestructive, high resolution analysis technique for local stress measurements in silicon. *Vibrational Spectroscopy*, **42**, 93-97.
- Schmidt U., Vargas F., Kress M., Weishaupt K. and Hollricher O. (2006) Confocal Raman AFM, a powerful tool for the nondestructive characterization of heterogeneous materials. *Microscopy and Microanalysis*, **12**, 512-513pp.
- Wang F., Feng J., Tong W. and Gao C. (2006) A facile pathway to fabricate microcapsules by in situ polyelectrolyte coacervation on poly(styrene sulfonate-)-doped CaCO₃ particles. *Journal of Materials Chemistry*, **17**, 670-676.
- Webb-Wood G., Ghoshal A. and Kik P.G. (2006) In situ experimental study of a near-field lens at visible frequencies. *Application Physics Letters*, **89**, 193110pp.
- Yuan W., Jiang G., Song Y. and Jiang L. (2006) Micropatterning of Polydiacetylene Based on a Photoinduced Chromatic Transition and Mechanism Study. *Journal of Applied Polymer Science*, **103**, 942-946.
- Zia R., Schuller J.A. and Brongersma M.L. (2006) Near-field characterization of guided polariton propagation and cutoff in surface plasmon waveguides. *Physical Review*, **74**, 165415pp.

Zia R., Schuller J.A., Chandran A. and Brongersma M.L. (2006) Plasmonics: the next chip-scale technology. *Materials Today*, **9**, 20-27.

2005

Biagoni P., Coduri M., Polli D., Virgili T., Labardi M., Cerullo G., Finazzi M. and Duo L. (2005) Near-field vs. Far-field polarization properties of hollow pyramid SNOM tips. *Physica Status Solidi*, **2**, 4078-4082.

Biagoni P., Polli D., Labardi M., Pucci A., Ruggen G., Cerullo G., Finazzi M. and Duo L. (2005) Unexpected polarization behaviour at the aperture of hollow-pyramid near-field probes. *Applied Physics Letters*, **87**, 223112.

Cui J. and Gibson U. (2006) Thermal modification of magnetism in cobalt-doped ZnO nanowires grown at low temperatures. *Physical Review*, **74**, 045416pp.

Dong W.-F., Ferri J.K., Adalsteinsson T., Schönhoff M., Sukhorukov G.B. and Möhwald H. (2005) Influence of Shell Structure on Stability, Integrity, and Mesh Size of Polyelectrolyte Capsules: Mechanism and Strategy for Improved Preparation. *Chemistry of Materials*, **17**, 2603-2611.

Furube A., Tamaki Y. and Katoh R. (2005) Time-Resolution Estimation of a Femtosecond Time-Resolved SNOM Having an Apertured Cantilever Tip. *Journal of the Korean Physical Society*, **47**, 76-79.

Seokwoo J., Malyarchuk V., White J.O. and Rogers J.A. (2005) Optically Fabricated Three Dimensional Nanofluidic Mixers for Microfluidic Devices. *Nano Letters*, **5**, 1351-1356.

Kwon S., Chang W., Jeong S. (2005) Shape and size variations during nanopatterning of photoresist using near-field scanning optical microscope. *Ultramicroscopy*, **105**, 316-323.

Oron-Carl M., Hennrich F., Kappes M.M., Löhneysen H.v. and Krupke R. (2005) On the Electron-Phonon Coupling of Individual Single-Walled Carbon Nanotubes. *Nano Letters*, **5**, 1761-1767.

Schmidt U., Hild S., Ibach W. and Holtricher O. (2005) Characterization of Thin Polymer Films on the Nanometer Scale with Confocal Raman AFM. *Macromol. Symp.* **230**, 133-143.

Shanmugham S., Jeong J., Alkhateeb A. and Aston D.E. (2005) Polymer nanowire elastic moduli measured with digital Pulsed Force Mode AFM. *Langmuir*, **21**.

Steele A., Amundsen H.E.F., Fries M., Vicenzi E., Benning L., Maule J., Mysen B., Toporski J., Schweizer M. and Fogel M. (2005) A Morphological and Chemical Study of Carbonate Globules Contained Within Mantle Xenoliths of the Sverrefjell Volcano Spitsbergen – Implications for ALH84001. *Lunar and Planetary Science*, **XXXVI**, 2173.

Tong W., Dong W., Gao C and Möhwald H. (2005) Multilayer capsules with cell-like topology: fabrication and spontaneous loading of various substances in aqueous and ethanol solutions. *Macromolecular Chemistry and Physics*, **206**, 1784-1790.

Tong W. and Gao C. (2005) Stable microcapsules assembled stepwise from weak polyelectrolytes followed by thermal crosslinking. *Polymers for Advanced Technologies*, **16**, 827-833.

Wang Y., MasPOCH D., Zou S., Schatz G.C., Smalley R.E. and Mirkin C.A. (2005) Controlling the shape, orientation, and linkage of carbon nanotube features with nano affinity templates. *PNAS*, **103**, 2026-2031.

Yuan G., Lear K.L., Stephens M.D., and Dandy D.S. (2005) Characterization of a 90° waveguide bend using near-field scanning optical microscopy. *Applied Physics Letters*, **87**, 191107pp.

2004

Brunner R., Burkhard M., Pesch A., Sandfuchs O., Ferstl M., Hohng S. and White J.O. (2004) Diffraction-based solid immersion lens. *J. Opt. Soc. Am. A*, **21**, 1186-1191.

Fries M., Nittler L., Steele A. and Toporski J. (2004) High Resolution Confocal Raman Imaging of an Interplanetary Dust Particle. *Lunar and Planetary Science*, **XXXV**, 2139.

Hopp B., Smausz T., Kokavecs J., Kresz N., Bor Z., Hild S. and Marti o. (2004) Investigation of incubation in ArF excimer laser irradiated poly (methyl-methacrylate) using pulsed force mode atomic force microscopy. *Journal of Applied Physics*, **96**, 5548-5551.

Krupke R., Hennrich F., Kappes M.M. and Löhneysen H.v. (2004) Surface Conductance Induced Dielectrophoresis of Semiconducting Single-Walled Carbon Nanotubes. *Nano Letters*, **4**, 1395-1399.

Rössel M., Höche H.-R., Leipner H.S., Völtzke D., Abicht H.-P., Hollricher O., Müller J. and Gablenz S. (2004) Raman microscopic investigations of BaTiO₃ precursors with core-shell structure. *Analytical and Bioanalytical Chemistry*, **380**, 157-162.

Ohkouchi S., Nakamura Y., Nakamura H. and Asakawa K. (2004) Indium nano-dot arrays formed by field-induced deposition with a Nano-Jet Probe for site-controlled InAs/GaAs quantum dots. *Thin Solid Films*, 233-236.

2003

Röder T., Kramer T., Huber K. and Kitzerow H.-S. (2003) Preparation of Positively and Negatively Charged Organic Colloids from a Single Precursor. *Macromolecular Chemistry and Physics*, **204**, 2204-2211.

Krupke R., Hennrich F., Löhneysen H. and Kappes M. (2003) Separation of Metallic from Semiconducting Single-Walled Carbon Nanotubes. *Science*, **301**, 344-346.

Shchukin D.G., Dong W. and Sukhorukov G.B. (2003) Spatially Confined Tungstate Ion Polymerization in Microcapsules. *Macromolecular Rapid Communications*, **24**, 462-466.

2002

Kim J., Samiee, White J.O., Myoung J.-M. and Kim K. (2002) Near-field photoluminescence spectroscopy of InGaN films grown by molecular-beam epitaxy, *Applied Physics Letters*, **80**, 989-991.

Vargas F., Hollricher O., Marti O., De Schaetzen G. and Tarrach G. (2002) Influence of protective layers on the blinking of fluorescent single molecules observed by confocal microscopy and scanning near field optical microscopy. *Journal of Chemical Physics* **117**, 705226.

2001

Jeong M.S., Kim Y.-W., White J.O., Suh E.-K., Hong C.-H. and Lee H.J. (2001) Spatial resolved photoluminescence in InGaN/GaN quantum wells by near-field scanning optical microscopy. *Applied Physics Letters*, **79**, 976-978.

Jeong M.S., Kim Y.-W., White J.O., Suh E.-K., Cheong M.G., Kim C.S. Hong C.-H. and Lee H.J. (2001) Spatial variation of photoluminescence and related defects in InGaN/GaN quantum wells. *Applied Physics Letters*, **73**, 3440-3442.

Krottil H.-U., Stifter T. and Marti O. (2001) Lock-in technique for concurrent measurement of adhesion and friction with the scanning force microscope. *Review of Scientific Instruments*, **72**, 150.

Zhu M., Akari S. and Möhwald H. (2001) Detection of Single PSS Polymers on Rough Surface by Pulsed-Force-Mode Scanning Force Microscopy. *Nano Letters*, **10**, 569-573.

2000

Brunner R., Kosal M.E., Suslick K.S., Lamche R., Marti O. and White J.O. (2000) Near-field scanning optical microscopy of zinc-porphyrin crystals. *Ultramicroscopy*, **84**, 149-157.

Krottil H.-U., Stifter T. and Marti O. (2000) Combined dynamic adhesion and friction measurements with the scanning force microscope. *Applied Physics Letter*, **77**, 3857-3859.

Krottil H.-U., Stifter T. and Marti O. (2000) Concurrent measurement of adhesive and elastic surface properties with a new modulation technique for scanning force microscopy. *Review of Scientific Instruments*, **71**, 2765.

Li X., Bohn P.W., Kim J, Whiet J.O. and Coleman J.J. (2000) Spatially resolved band-edge emission from partially coalesced GaN pyramids prepared by epitaxial lateral overgrowth. *Applied Physics Letters*, **76**, 3031-3033.