
Literaturverzeichnis

- [1] R. P. Feynman, „There´s plenty of room at the bottom“, *Engineering and Science* **23**, 22-36 (1960).
- [2] G. Binnig, H. Rohrer, C. Gerber, E. Weibel, „Tunneling through a controllable vacuum gap“, *Appl. Phys. Lett.* **40**, 178-180 (1982).
- [3] G. Binnig, C. F. Quate, C. Gerber, „Atomic force microscope“, *Phys. Rev. Lett.* **56**, 930-933 (1986).
- [4] D. W. Pohl, W. Denk, M. Lanz, „Optical stethoscopy: Image recording with resolution $\lambda/20$ “, *Appl. Phys. Lett.* **44**, 651-653 (1984).
- [5] A. Lewis, M. Isaacson, A. Harootunian, A. Murray, „Development of a 500 Å spatial resolution light microscope. I. Light is efficiently transmitted through $\lambda/16$ diameter apertures“, *Ultramicroscopy* **13**, 227-231 (1984).
- [6] C. V. Raman, K. S. Krishnan, „A new type of secondary radiation“, *Nature* **121**, 50-51 (1928).
- [7] M. Fleischmann, P. J. Hendra, A. J. Mcquillan, „Raman-spectra of pyridine adsorbed at a silver electrode“, *Chem. Phys. Lett.* **26**, 163-166 (1974).
- [8] D. L. Jeanmaire, R. P. Van Duyne, „Surface Raman spectroelectrochemistry. 1. Heterocyclic, aromatic and aliphatic-amines adsorbed on anodized silver electrode“, *J. Electroanal. Chem.* **84**, 1-20 (1977).
- [9] M. G. Albrecht, J. A. Creighton, „Anomalously intense Raman-spectra of pyridine at a silver electrode“, *J. Am. Chem. Soc.* **99**, 5215-5217 (1977).
- [10] K. Kneipp, Y. Wang, H. Kneipp, I. Itzkan, R. R. Dasari, M. S. Feld, „Single molecule detection using surface-enhanced Raman scattering (SERS)“, *Phys. Rev. Lett.* **78**, 1667-1670 (1997).

-
- [11] S. Nie, S. R. Emory, „Probing single molecules and single nanoparticles by surface-enhanced Raman scattering“, *Science* **275**, 1102-1106 (1997).
- [12] V. M. Shalaev, A. K. Sarychev, „Nonlinear optics of random metal-dielectric films“, *Phys. Rev. B* **57**, 13265-13288 (1998).
- [13] V. A. Markel, V. M. Shalaev, P. Zhang, W. Huynh, L. Tay, T. L. Haslet, M. Moskovits, „Near-field optical spectroscopy of individual surface-plasmon modes in colloid clusters“, *Phys. Rev. B* **59**, 10903-10909 (1999).
- [14] H. Metiu, „Surface enhanced spectroscopy“, *Prog. Surf. Sci.* **17**, 153-320 (1984)
- [15] M. Moskovits, „Surface-enhanced spectroscopy“, *Rev. Mod. Phys.* **57**, 783-826 (1985).
- [16] A. Otto, I. Mrozeck, H. Grabhorn, W. Akemann, „Surface-enhanced Raman-scattering“, *J. Phys. Condens. Matter* **4**, 1143-1212 (1992).
- [17] R. W. Rendell, D. J. Scalapino, B. Mühlischlegel, „Role of local plasmon modes in light emission from small-particle tunnel junctions“, *Phys. Rev. Lett.* **41**, 1746-1750 (1978).
- [18] R. W. Rendell, D. J. Scalapino, „Surface plasmons confined by microstructures on tunnel junctions“, *Phys. Rev. B* **24**, 3276-3294 (1981).
- [19] J. Wessel, „Surface-enhanced optical microscopy“, *J. Opt. Soc. Am. B* **2**, 1538-1541 (1985).
- [20] Y. Inouye, S. Kawata, „Near-field scanning optical microscope with a metallic probe tip“, *Opt. Lett.* **19**, 159-161 (1994).
- [21] S. Kawata, Y. Inouye, „Scanning probe optical microscopy using a metallic probe tip“, *Ultramicrosc.* **57**, 313-317 (1995).
- [22] P. Gleyzes, A. C. Boccara, R. Bachelot, „Near-field optical microscopy using a metallic vibrating tip“, *Ultramicrosc.* **57**, 318-322 (1995).
- [23] R. Stöckle, Y. D. Suh, V. Deckert, R. Zenobi, „Nanoscale chemical analysis by tip-enhanced Raman spectroscopy“, *Chem. Phys. Lett.* **318**, 131-136 (2000).

- [24] M. S. Anderson, „Locally enhanced Raman spectroscopy with an atomic force microscope“, *Appl. Phys. Lett.* **76**, 3130-3132 (2000).
- [25] N. Hayazawa, Y. Inouye, Z. Sekhat, S. Kawata, „Metallized tip amplification of near-field Raman scattering“, *Opt. Commun.* **183**, 333-336 (2000).
- [26] B. Pettinger, G. Picardi, R. Schuster, G. Ertl, „Surface enhanced Raman spectroscopy: Towards single molecular spectroscopy“, *Electrochemistry* **68**, 942-949 (2000).
- [27] A. Hartschuh, N. Anderson, L. Novotny, „Near-field Raman spectroscopy using a sharp metal tip“, *J. Microsc.* **210**, 234-240 (2003).
- [28] A. Hartschuh, E. J. Sanchez, X. S. Xie, L. Novotny, „High-resolution near-field Raman microscopy of single-walled carbon nanotubes“, *Phys. Rev. Lett.* **90**, 095503 (2003).
- [29] T. Ichimura, N. Hayazawa, M. Hashimoto, Y. Inouye, S. Kawata, „Tip-enhanced coherent anti-Stokes Raman scattering for vibrational nanoimaging“, *Phys. Rev. Lett.* **92**, 220801 (2004).
- [30] N. Anderson, A. Hartschuh, S. Cronin, L. Novotny, „Nanoscale vibrational analysis of single-walled carbon nanotubes“, *J. Am. Chem. Soc.* **127**, 2533-2537 (2005)
- [31] E. Hecht, *Optics (2nd edition)*, Addison-Wesley Publishing Company, Reading, Massachusetts (1987).
- [32] W. Denk, J. H. Strickler, W. W. Webb, “Two-photon laser scanning fluorescence microscopy”, *Science* **248**, 73-76 (1990).
- [33] S. W. Hell, K. Bahlmann, M. Schrader, A. Soini, H. Malak, I. Gryczynski, J. R. Lakowicz, “Three-photon excitation in fluorescence microscopy”, *J. Biomed. Opt.* **1**, 71-74 (1996).
- [34] P. D. Higdon, P. Török, T. Wilson, “Imaging properties of high aperture multiphoton fluorescence scanning optical microscopes”, *J. Microsc.* **193**, 127-141 (1999).

-
- [35] S. W. Hell, J. Wichmann, „Breaking the diffraction resolution limit by stimulated-emission – stimulated-emission-depletion fluorescence microscopy“, *Opt. Lett.* **19**, 780-782 (1994).
- [36] E. H. Syngé, „A suggested method for extending microscopic resolution into the ultra-microscopic region“, *Phil. Mag.* **6**, 356-362 (1928).
- [37] E. Betzig, J. K. Trautmann, T. D. Harris, J. S. Weiner, R. L. Kostelak, „Breaking the diffraction barrier: Optical microscopy on a nanometric scale“, *Science* **251**, 1468-1470 (1991).
- [38] R. Eckert, J. M. Freyland, H. Gersen, H. Heinzelmänn, G. Schurmann, W. Noell, U. Stauer, N. F. de Rooij, „Near-field fluorescence imaging with 32 nm resolution based on microfabricated cantilevered probes“, *Appl. Phys. Lett.* **77**, 3695-3697 (2000).
- [39] D. Courjon, K. Sarayeddine, M. Spajer, „Scanning tunneling optical microscopy“, *Opt. Commun.* **71**, 23-28 (1989).
- [40] R. C. Reddick, R. J. Warmack, T. L. Ferrel, „New form of scanning optical microscopy“, *Phys. Rev. B* **39**, 767-770 (1989).
- [41] A. Otto, „Excitation of nonradiative surface plasma waves in silver by method of frustrated total reflection“, *Z. Physik* **216**, 398-410 (1968).
- [42] E. Kretschmann, „Die Bestimmung optischer Konstanten von Metallen durch Anregung von Oberflächenplasmaschwingungen“, *Z. Physik* **241**, 313-324 (1971).
- [43] S. J. Elston, J. R. Sambles, „Polarization conversion using prism-coupled surface plasmon polaritons“, *J. Mod. Opt.* **38**, 1223-1227 (1991).
- [44] P. K. Aravind, A. Nitzan, H. Metiu, „The interaction between electromagnetic resonances and its role in spectroscopic studies of molecules adsorbed on colloidal particles or metal spheres“, *Surf. Sci.* **110**, 189-204 (1981).

- [45] P. K. Aravind, H. Metiu, „The effects of the interaction between resonances in the electromagnetic response of a sphere-plane structure – applications to surface enhanced spectroscopy“, *Surf. Sci.* **124**, 506-528 (1983).
- [46] D. S. Wang, H. Chew, M. Kerker, „Enhanced Raman Scattering at the surface (SERS) of a spherical particle“, *Appl. Opt.* **19**, 2256-2257 (1980).
- [47] M. Kerker, D. S. Wang, H. Chew, „Surface enhanced Raman scattering (SERS) by molecules adsorbed at spherical particles“, *Appl. Opt.* **19**, 3373 (1980).
- [48] M. Kerker, D. S. Wang, H. Chew, „Surface enhanced Raman scattering (SERS) by molecules adsorbed at spherical particles“ [Errata], *Appl. Opt.* **19**, 4159 (1980).
- [49] O. J. F. Martin, C. Girard, „Controlling and tuning strong optical field gradients at a local probe microscope tip apex“, *Appl. Phys. Lett.* **70**, 705-707 (1997).
- [50] L. Novotny, R. X. Bian, X. S. Xie, „Theory of nanometric optical tweezers“, *Phys. Rev. Lett.* **79**, 645-648 (1997).
- [51] L. Vaccaro, L. Aeschmann, U. Staufer, H. P. Herzig, R. Dändliker, „Propagation of the electromagnetic field in fully coated near-field optical probes“ *Appl. Phys. Lett.* **83**, 584-586 (2003).
- [52] A. L. Demming, F. Festy, D. Richards, „Plasmon resonances on metal tips: Understanding tip-enhanced Raman scattering“, *J. Chem. Phys.* **122**, 184716 (2005).
- [53] M. Kerker, C. G. Blatchford, „Elastic-scattering, absorption, and surface-enhanced Raman-scattering by concentric spheres comprised of a metallic and a dielectric region“, *Phys. Rev. B* **26**, 4052-4064 (1982).
- [54] B. Pettinger, B. Ren, G. Picardi, R. Schuster, G. Ertl, „Tip-enhanced Raman spectroscopy (TERS) of malachite green isothiocyanate at Au(111): Bleaching behavior under the influence of high electromagnetic fields“, *J. Raman Spectrosc.* **36**, 541-550 (2005).
- [55] C. C. Neacsu, J. Dreyer, N. Behr, M. B. Raschke, “Scanning-probe Raman spectroscopy with single-molecule sensitivity”, *Phys. Rev. B* **73**, 193406 (2006).

-
- [56] M. Micic, N. Klymyshyn, Y. D. Suh, H. P. Lu, „Finite element method simulation of the field distribution for AFM tip-enhanced surface-enhanced Raman scanning microscopy“, *J. Phys. Chem B* **107**, 1574-1584 (2003).
- [57] J. Jersch, F. Demming, L. J. Hildenhagen, K. Dickmann, „Field enhancement of optical radiation in the nearfield of scanning probe microscope tips“, *Appl. Phys. A* **66**, 29-34 (1998).
- [58] F. Demming, J. Jersch, K. Dickmann, P. I. Geshev, „Calculation of the field enhancement on laser-illuminated scanning probe tips by the boundary element method“, *Appl. Phys. B* **66**, 593-598 (1998).
- [59] S. Klein, P. Geshev, T. Witting, K. Dickmann, M. Hietschold, „Enhanced Raman scattering in the near field of a scanning tunneling tip – An approach to single molecule Raman spectroscopy“, *Electrochemistry* **71**, 114-116 (2002).
- [60] S. Klein, T. Witting, K. Dickmann, P. Geshev, M. Hietschold, „On the field enhancement at laser-illuminated scanning probe tips“, *Single Mol.* **3**, 281-284 (2002)
- [61] D. L. Mills, „Theory of STM-induced enhancement of dynamic dipole moments on crystal surfaces“, *Phys. Rev. B* **65**, 125419 (2002).
- [62] S. Wu, D. L. Mills, „STM-induced enhancement of dynamic dipole moments on crystal surfaces: Theory of the lateral resolution“, *Phys. Rev. B* **65**, 205420 (2002).
- [63] D. Hu, M. Micic, N. Klymyshyn, Y. D. Suh, H. P. Lu, „Correlated topographic and spectroscopic imaging beyond diffraction limit by atomic force microscopy metallic tip-enhanced near-field fluorescence lifetime microscopy“, *Rev. Sci. Instrum.* **74**, 3347-3355 (2003).
- [64] D. Richards, R. G. Milner, F. Huang, F. Festy, „Tip-enhanced Raman microscopy: practicalities and limitations“, *J. Raman Spectrosc.* **34**, 663-667 (2003).
- [65] P. I. Geshev, S. Klein, T. Witting, K. Dickmann, M. Hietschold, „Calculation of the electric-field enhancement at nanoparticles of arbitrary shape in close proximity to a metallic surface“, *Phys. Rev. B* **70**, 075402 (2004).

- [66] I. Notinger, A. Elfick, „Effect of sample and substrate electric properties on the electric field enhancement at the apex of SPM nanotips“, *J. Phys. Chem. B* **109**, 15699-15706 (2005).
- [67] B. Pettinger, K. F. Domke, D. Zhang, R. Schuster, G. Ertl, „Direct monitoring of plasmon resonances in a tip-surface gap of varying width“, *Phys. Rev. B*, **76**, 113409 (2007).
- [68] D. Mehtani, N. Lee, R. D. Hartschuh, A. Kisliuk, M. D. Foster, A. P. Sokolov, J. F. Maguire, „Nano-Raman spectroscopy with side-illumination optics“, *J. Raman Spectrosc.* **36**, 1068-1075 (2005).
- [69] K. F. Domke, D. Zhang, B. Pettinger, „Toward Raman fingerprints of single dye molecules at atomically smooth Au(111)“, *J. Am. Chem. Soc.* **128**, 14721-14727 (2006).
- [70] U. Neugebauer, P. Rosch, M. Schmitt, J. Popp, C. Julien, A. Rasmussen, C. Budich, V. Deckert, „On the way to nanometer-sized information of the bacterial surface by tip-enhanced Raman spectroscopy“, *ChemPhysChem* **7**, 1428-1430 (2006).
- [71] U. Neugebauer, U. Schmid, K. Baumann, W. Ziebuhr, S. Kozitskaya, V. Deckert, M. Schmitt, J. Popp, „Towards a detailed understanding of bacterial metabolism – spectroscopic characterization of *Staphylococcus epidermidis*“, *ChemPhysChem* **8**, 124-137 (2007).
- [72] Y. Saito, M. Motohashi, N. Hayazawa, M. Iyoki, S. Kawata, „Nanoscale characterization of strained silicon by tip-enhanced Raman spectroscopy in reflection mode“, *Appl. Phys. Lett.* **88**, 143109 (2006).
- [73] S. H. Christiansen, M. Becker, S. Fahlbusch, J. Michler, V. Sivakov, G. Andrä, R. Geiger, „Signal enhancement in nano-Raman spectroscopy by gold caps on silicon nanowires obtained by vapour-liquid-solid growth“, *Nanotechnology* **18**, 035503 (2007).

-
- [74] B. Pettinger, G. Picardi, R. Schuster, G. Ertl, „Surface-enhanced and STM tip-enhanced Raman spectroscopy of CN^- ions at gold surfaces“, *J. Electroanal. Chem.* **554**, 293-299 (2003).
- [75] D. S. Bulgarevich, M. Futamata, „Apertureless tip-enhanced Raman microscopy with confocal epi-illumination/collection optics“, *Appl. Spectrosc.* **58**, 757-761 (2004).
- [76] L. T. Nieman, G. M. Krampert, R. E. Martinez, „An apertureless near-field scanning optical microscope and its application to surface-enhanced Raman spectroscopy and multiphoton fluorescence imaging“, *Rev. Sci. Instrum.* **72**, 1691-1699 (2001).
- [77] N. Hayazawa, Y. Inouye, Z. Sekhat, S. Kawata, „Near-field Raman scattering enhanced by a metallized tip“, *Chem. Phys. Lett.* **335**, 369-374 (2001).
- [78] N. Hayazawa, Y. Inouye, A. Tarun, S. Kawata, „Near-field enhanced Raman spectroscopy using side illumination optics“, *J. Appl. Phys.* **92**, 6983-6986 (2002).
- [79] N. Hayazawa, Y. Inouye, H. Watanabe, Z. Sekhat, S. Kawata, „Near-field Raman imaging of organic molecules by an apertureless metallic probe scanning optical microscope“, *J. Chem. Phys.* **117**, 1296-1301 (2002).
- [80] B. Pettinger, G. Picardi, R. Schuster, G. Ertl, „Surface-enhanced and STM-tip-enhanced Raman spectroscopy at metal surfaces“, *Single Mol.* **3**, 285-294 (2002).
- [81] N. Hayazawa, T. Yano, H. Watanabe, Y. Inouye, S. Kawata, „Detection of an individual single-wall carbon nanotube by tip-enhanced near-field Raman spectroscopy“, *Chem. Phys. Lett.* **376**, 174-180 (2003).
- [82] J. J. Wang, D. A. Smith, D. N. Batchelder, Y. Saito, J. Kirkham, C. Robinson, K. Baldwin, G. Li, B. Bennett, „Apertureless near-field Raman spectroscopy“, *J. Microsc.* **210**, 330-333 (2003).
- [83] C. Vannier, B. S. Yeo, J. Melanson, R. Zenobi, „Multifunctional microscope for far-field and tip-enhanced Raman spectroscopy“, *Rev. Sci. Instrum.* **77**, 023104 (2006)

- [84] M. S. Anderson, W. T. Pike, „A Raman-atomic force microscope for apertureless-near-field spectroscopy and optical trapping“, *Rev. Sci. Instrum.* **73**, 1198-1203 (2002).
- [85] B. Pettinger, B. Ren, G. Picardi, R. Schuster, G. Ertl, „Nanoscale probing of adsorbed species by tip-enhanced Raman spectroscopy“, *Phys. Rev. Lett.* **92**, 096101 (2004).
- [86] B. Ren, G. Picardi, B. Pettinger, R. Schuster, G. Ertl, „Tip-enhanced Raman spectroscopy of benzenethiol adsorbed on Au and Pt single-crystal surfaces“, *Angew. Chem. Int. Ed.* **44**, 139-142 (2005).
- [87] A. Drechsler, M. A. Lieb, C. Debus, A. J. Meixner, G. Tarrach, „Confocal microscopy with a high numerical aperture parabolic mirror“, *Opt. Express* **9**, 637-644 (2001).
- [88] M. A. Lieb, *Mikroskopie mit Parabolspiegeloptik*, Dissertation, Universität Siegen (2001).
- [89] M. A. Lieb, A. J. Meixner, „A high numerical aperture parabolic mirror as imaging device for confocal microscopy“, *Opt. Express* **8**, 458-474 (2001).
- [90] L. Novotny, M. R. Beversluis, K. S. Youngworth, T. G. Brown, „Longitudinal field modes probed by single molecules“, *Phys. Rev. Lett.* **86**, 5251-5254 (2001).
- [91] K. S. Youngworth, T. G. Brown, „Focusing of high numerical aperture cylindrical-vector beams“, *Opt. Express* **7**, 77-87 (2000).
- [92] N. Davidson, N. Bokor, „High-numerical-aperture fokusing of radially polarized doughnut beams with a parabolic mirror and a flat diffractive lens“, *Opt. Lett.* **29**, 1318-1323 (2004).
- [93] S. Quabis, R. Dorn, M. Eberler, O. Glöckl, G. Leuchs, „Focusing light to a tighter spot“, *Opt. Commun.* **179**, 1-7 (2000).
- [94] R. Dorn, S. Quabis, G. Leuchs, „Sharper focus for a radially polarized light beam“, *Phys. Rev. Lett.* **91**, 233901 (2003).

-
- [95] C. J. R. Sheppard, A. Choudhury, „Annular pupils, radial polarization, and super-resolution“, *Appl. Opt.* **43**, 4322-4327 (2004).
- [96] S. Quabis, R. Dorn, G. Leuchs, „Generation of a polarized doughnut mode of high quality“, *Appl. Phys. B* **81**, 597-600 (2005).
- [97] Y. Saito, N. Hayazawa, H. Kataura, T. Murakami, K. Tsukagoshi, Y. Inouye, S. Kawata, „Polarization measurements in tip-enhanced Raman spectroscopy applied to single-walled carbon nanotubes“, *Chem. Phys. Lett.* **410**, 136-141 (2005).
- [98] J. T. Krug, E. J. Sanchez, X. S. Xie, „Design of near-field optical probes with optimal field enhancement by finite difference time domain electromagnetic simulation“, *J. Chem. Phys.* **116**, 10895-10901 (2002).
- [99] L. Libioulle, Y. Houbion, J. M. Gilles, „Very sharp gold and platinum tips to modify gold surfaces in scanning-tunneling-microscopy“, *J. Vac. Sci. Technol. B* **13**, 1325-1331 (1995).
- [100] D. Fujita, Q. D. Jiang, Z. C. Dong, H. Y. Sheng, H. Nejh, „Nanostructure fabrication on silicon surfaces by atom transfer from a gold tip using an ultrahigh vacuum scanning tunneling microscope“, *Nanotechnology* **8**, A10-A14 (1997).
- [101] B. Ren, G. Picardi, B. Pettinger, „Preparation of gold tips suitable for tip-enhanced Raman spectroscopy and light emission by electrochemical etching“, *Rev. Sci. Instrum.* **75**, 837-841 (2004).
- [102] L. Billot, L. Berguiga, M. L. de la Chapelle, Y. Gilbert, R. Bachelot, „Production of gold tips for tip-enhanced near-field optical microscopy and spectroscopy: Analysis of the etching parameters“, *Eur. Phys. J. Appl. Phys.* **31**, 139-145 (2005).
- [103] L. A. Kibler, *Preparation and characterisation of noble metal single crystal electrodes*, Booklet ISE Meeting Warschau (2000); ISE Meeting Düsseldorf (2002).
- [104] J. Clavilier, K. El Achi, A. Rodes, „In situ characterization of the Pt(S)-[n(111) x (111)] electrode surfaces using electrosorbed hydrogen for probing terrace and step sites“, *J. Electroanal. Chem.* **272**, 253-261 (1989).

- [105] I. P. Batra, N. Garcia, H. Rohrer, H. Salemk, E. Stoll, S. Ciraci, „A study of graphite surface with STM and electronic-structure calculations“, *Surf. Sci.* **181**, 126-138 (1987).
- [106] R. Dorn, S. Quabis, G. Leuchs, „The focus of light-linear polarization breaks the rotational symmetry of the focal spot“, *J. Mod. Opt.* **50**, 1917-1926 (2003).
- [107] C. Debus, M. A. Lieb, A. Drechsler, A. J. Meixner, „Probing highly confined optical fields in the focal region of a high NA parabolic mirror with subwavelength spatial resolution“, *J. Microsc.* **210**, 203-208 (2003).
- [108] M. Salib, L. Liao, R. Jones, M. Morse, A. Liu, D. Samara-Rubio, D. Alduino, M. Paniccia, „Silicon Photonics“, *Intel Technology Journal* **8**, 143-160 (2004).
- [109] R. Ossikovski, Q. Nguyen, G. Picardi, „Simple model for the polarization effects in tip-enhanced Raman spectroscopy“, *Phys. Rev. B* **75**, 045412 (2007).
- [110] G. Picardi, Q. Nguyen, R. Ossikovski, J. Schreiber, „Polarization properties of oblique incidence scanning tunneling microscopy – tip-enhanced Raman spectroscopy“, *Appl. Spectrosc.* **61**, 95-99 (2007).
- [111] Q. Nguyen, R. Ossikovski, J. Schreiber, „Contrast enhancement on crystalline silicon in polarized reflection mode tip-enhanced Raman spectroscopy“, *Opt. Commun.* **274**, 231-235 (2007).
- [112] K. F. Domke, D. Zhang, B. Pettinger, „Enhanced Raman spectroscopy: single molecules or carbon?“, *J. Phys. Chem C* **111**, 8611-8616 (2007).
- [113] L. A. Deschenes, D. A. Vanden Bout, „Single molecule photobleaching: increasing photon yield and survival time through suppression of two-step photolysis“, *Chem. Phys. Lett.* **365**, 387-395 (2002).
- [114] C. Julien, A. Débarre, D. Nutarelli, A. Richard, P. Tchénio, „Single molecule study of perylene orange photobleaching in thin sol-gel films“, *J. Phys. Chem B* **109**, 23145-23153 (2005).

- [115] A. Otto, „The 'chemical' (electronic) contribution to surface-enhanced Raman scattering“, *J. Raman Spectrosc.* **36**, 497-509 (2005).
- [116] J. R. Lombardi, R. L. Birke, „Time-dependent picture of the charge-transfer contributions to surface enhanced Raman spectroscopy“, *J. Chem. Phys.* **126**, 244709 (2007).
- [117] G. Picardi, *Raman spectroscopy and light emission at metal surfaces enhanced by the optical near field of a scanning tunneling tip*, Dissertation, Freie Universität Berlin (2004).
- [118] A. Downes, D. Salter, A. Elfick, „Finite element simulations of tip-enhanced Raman and fluorescence spectroscopy“, *J. Phys. Chem. B* **110**, 6692-6698 (2006).
- [119] Z. J. Wang, L. J. Rothberg, „Origins of blinking in single-molecule Raman spectroscopy“, *J. Phys. Chem. B* **109**, 3387-3391 (2005).
- [120] S. R. Emory, R. A. Jensen, T. Wenda, M. Y. Han, S. M. Nie, „Re-examining the origin of spectral blinking in single-molecule and single-nanoparticle SERS“, *Faraday Discussions* **132**, 249-259 (2006).
- [121] J. Steidtner, B. Pettinger, „High-resolution-microscope for tip-enhanced optical processes“, *Rev. Sci. Instrum.* **78**, 103104 (2007).
