

THOMAS DITTRICH

Publications in Journals

133. A. Belaidi, Th. Dittrich, D. Kieven, J. Tornow, K. Schwarzburg, M. Kunst, N. Allsop, M.-Ch. Lux-Steiner, S. Gavrilov, „ZnO nanorod arrays for solar cells with extremely thin sulfidic absorber”, PV SEC17, submitted to Sol. En. Mats. Sol. Cells.

132. S. Gavrilov, Th. Dittrich, B. Lim, A. Belaidi, M. Lux-Steiner, „Ultra-thin charge selective systems based on MeS_xH_y (Me = In, Cu, Pb)”, Thin Solid Films, accepted.

131. Y. Zidon, Y. Shapira, H. Shaim, Th. Dittrich, „Interactions at tetraphenyl-porphyrin / InP interfaces observed by surface photovoltage spectroscopy”, Appl. Surf. Sci., accepted.

130. I. Mora-Seró, Th. Dittrich, A. S. Sussha, A. L. Rogach, J. Bisquert, „Large increase of electron extraction from CdSe quantum dots into TiO_2 by N3 dye coadsorption”, submitted.

129. Th. Dittrich, P. Zabel, „Photocurrent transients in inhomogeneous Pt / TiO_2 Schottky diodes”, submitted.

128. Th. Dittrich, P. Zabel, F. Lenzmann, G. Morales, L. Otero „Au / TiO_2 contacts modified with a monolayer of $\text{Ru}(\text{dcbpyH}_2)_2(\text{NCS})_2$ molecules”, Thin Solid Films, accepted.

127. J. Mwabora, K. Ellmer, A. Belaidi, J. Rappich, W. Bohne, J. Röhrich, Th. Dittrich, “Reactively sputtered TiO_2 layers on $\text{SnO}_2:\text{F}$ substrates: a Raman and surface photovoltage study”, Thin Solid Films, in press, online.

2007

126. I. Mora-Seró, J. Bisquert, Th. Dittrich, A. Belaidi, A. S. Sussha, A. L. Rogach, „Photosensitization of TiO_2 layers with CdSe quantum dots: Correlation between light absorption and photoinjection”, J. Chem. Phys. C 111 (2007) 14889-14892.

125. J. A. Anta, I. Mora-Seró, Th. Dittrich, J. Bisquert, „Dynamics of charge separation and trap-limited electron transport in TiO_2 nanos-

tructures”, J. Chem. Phys. C 111 (2007) 13997-14000.

124. Y. Zidon, Y. Shapira, Th. Dittrich, „Modulated charge separation at tetraphenylporphyrin / Au interfaces”, Appl. Phys. Lett. 90 (2007) 142103.

123. Y. Zidon, Y. Shapira, Th. Dittrich, L. Otero, „Light induced charge separation in thin tetraphenyl-porphyrin layers deposited on Au”, Phys. Rev. B 75 (2007) 195327 1-6.

122. F. Fungo, M. E. Milanesio, L. Sereno, E. N. Durantini, L. Otero, Th. Dittrich, “Optically induced switch of the surface work function in TiO_2 / Porphyrin- C_{60} dyad system”, Mater. Chem. 17 (2007) 2107-2112.

121. Th. Dittrich, B. Neumann, H. Tributsch, “Sensitization via reversibly inducible $\text{Ru}(\text{dcbpyH}_2)_2(\text{NCS})_2 - \text{TiO}_2$ charge transfer complex”, J. Phys. Chem. C 111 (2007) 2265-2269.

2006

120. I. Mora-Seró, J. A. Anta, Th. Dittrich, G. Garcia-Belmonte, J. Bisquert, „Continuous time random walk simulation of short-range electron transport in TiO_2 layers compared with transient surface photovoltage measurements”, J. Photochem. Photobiol. A: Chemistry 182 (2006) 280-287.

119. U. Koslowski, K. Ellmer, P. Bogdanoff, Th. Dittrich, T. Guminskaya, H. Tributsch, “Structural, electrical, optical, and photoelectrochemical properties of thin titanium oxinitride films ($\text{TiO}_{2-2x}\text{N}_x$ with $0 \leq x \leq 1$)”, J. Vac. Sci. Technol. A24 (2006) 2199-2205.

118. I. Mora-Seró, Th. Dittrich, G. Garcia-Belmonte, J. Bisquert, „Determination of spatial charge separation of diffusing electrons by transient photovoltage measurements”, J. Appl. Phys. 100 (2006) 103705 1-6.

117. A. Ofir, Th. Dittrich, S. Tirosh, L. Grinis, A. Zaban, „Influence of sintering temperature, pressing and conformal coatings on electron diffusion in electrophoretically deposited porous TiO_2 layers”, J. Appl. Phys. 100 (2006) 074317.

116. S. Tirosh, Th. Dittrich, A. Ofir, L. Grinis, A. Zaban, „Influence of ordering in porous TiO₂ layers on electron diffusion”, J. Phys. Chem. B Letters 110 (2006) 16165-16168.
115. Th. Dittrich, A. Ofir, S. Tirosh, L. Grinis, A. Zaban, „Influence of the porosity on diffusion and lifetime in porous TiO₂ layers”, Appl. Phys. Lett., 88 (2006) 182110.
114. R. Bayón, R. Musembi, A. Belaidi, M. Bär, T. Guminskaya, C. H. Fischer, M. C. Lux-Steiner, Th. Dittrich, „Highly structured In(OH)_xS_y/Pb(OH)_xS_y to be used in photovoltaic applications“, C. R. Chimie 9 (2006) 730-734.
113. S. Gavrilov, I. Oja, B. Lim, A. Belaidi, W. Bohne, E. Strub, J. Röhrich, M-Ch. Lux-Steiner, Th. Dittrich, „Charge selective contact on ultra-thin In(OH)_xS_y/Pb(OH)_xS_y heterostructure prepared by SILAR“, phys. stat. sol. (a) 203 (2006) 1024-1029.
112. I. Mora-Seró, J. Bisquert, F. Fabregat-Santiago, G. Garcia-Belmonte, G. Zoppi, K. Durose, Y. Proskuryakov, I. Oja, A. Belaidi, Th. Dittrich, R. Tena-Zaera, A. Katty, C. Lévy-Clement, V. Barrioz, S. J. C. Irvine, “Implications of the negative capacitance observed at forward bias in nanocomposite and polycrystalline solar cells”, Nanoletters, 6 (2006) 640-650.
111. I. Oja, A. Belaidi, L. Dloczik, M-Ch. Lux-Steiner, Th. Dittrich, „Photoelectrical properties of In(OH)_xS_y/PbS(O) structures deposited by SILAR on TiO₂“, Semicond. Science & Technol. 21 (2006) 520-526.
110. S. Rühle, Th. Dittrich, “Recombination controlled signal transfer through mesoporous TiO₂ films”, J. Phys. Chem. B. 110 (2006) 3883-3888.
109. J. Rappich, A. Merson, K. Roodenko, Th. Dittrich, M. Gensch, K. Hinrichs, Y. Shapira, „Electronic properties of Si surfaces and side reactions during electrochemical grafting of phenyl groups“, J. Phys. Chem. B 110 (2006) 1332-1337.
108. Th. Dittrich, I. Mora-Seró, G. Garcia-Belmonte, J. Bisquert, „Temperature dependent normal and anomalous diffusion in porous TiO₂ studied by transient surface photovoltage”, Phys. Rev. B 73 (2006) 045407. Virtual Journal of Nanoscale Science & Technology 13 (3) (2006).
- 2005
107. Th. Dittrich, V. Zinchuk, V. Skryshevskyy, I. Urban, O. Hilt, „Electrical transport in passivated Pt / TiO₂ / Ti Schottky-diodes”, J. Appl. Phys. 98 (2005) 104501.
106. M. Gensch, K. Roodenko, K. Hinrichs, R. Hunger, A. G. Güell, A. Merson, U. Schade, Y. Shapira, Th. Dittrich, J. Rappich, N. Esser, „Molecule-solid interfaces studied with infrared ellipsometry: Ultrathin nitrobenzene films”, J. Vac. Sci. Technol. B 23 (2005) 1838-1842.
105. J. Rappich, P. Hartig, N. H. Nickel, I. Sieber, S. Schulze, Th. Dittrich, „Stable electrochemically passivated Si surfaces by ultra thin benzene-type layers“, Microelectronic Engineering 80 (2005) 62-65.
104. I. Mora-Seró, Th. Dittrich, A. Belaidi, G. Garcia-Belmonte, J. Bisquert, “Observation of diffusion and tunneling recombination of dye-photoinjected electrons in ultrathin TiO₂ layers by surface photovoltage transients”, J. Phys. Chem. B 109 (2005) 14932-14938.
103. S. Rühle, Th. Dittrich, “Investigation of the electric field in TiO₂ / FTO junctions used in dye-sensitized solar cells by photocurrent transients”, J. Phys. Chem. B. 109 (2005) 9522-9526.
102. S. Gavrilov, I. Sieber, A. Belaidi, L. Nosova, L. Dloczik, Th. Dittrich, „Synthesis of semiconductor nanowires by pulsed current electrodeposition of metal with subsequent sulfurization“, phys. stat. sol. (a) 202 (2005) 1497-1501.
101. V. Gayvoronsky, A. Galas, S. Nepijko, M. Brodyn, V. Timoshenko, Th. Dittrich, F. Koch, I. Petrik, N. Smirnova, A. Eremenko, „Giant nonlinear optical response application for

nanoporous titanium dioxide photocatalytic activity monitoring“,
phys. stat. sol. (c) 2(9) (2005) 3303-3307.

100. C. Lévy-Clement, S. Lust, M. Mamor, J. Rappich, Th. Dittrich, „Investigation of p-type macroporous silicon formation“,
phys. stat. sol. (a) 202 (2005) 1390-1395.

99. M. Aggour, Th. Dittrich, A. Belaidi, I. Sieber, J. Rappich, „Anodic preparation of porous TiO₂ in fluoride solutions“,
phys. stat. sol. (c) 2(9) (2005) 3344-3348.

98. B. R. Sankapal, A. Ennaoui, T. Guminskaya, Th. Dittrich, W. Bohne, J. Röhrich, E. Strub, M. Ch. Lux-Steiner, „Characterization of p-CuI prepared by the SILAR technique on Cu-tape/n-CuInS₂ for solar cells“, Thin Solid Films 480-481 (2005) 142-146.

97. R. Bayon, R. Musembi, A. Belaidi, T. Guminskaya, M. Ch. Lux-Steiner, Th. Dittrich, „Highly structured TiO₂ / In(OH)_xS_y / PbS / PEDOT:PSS for photovoltaic applications“, Solar Cell Mater. and Solar Cells 89 (2005) 13-25.

96. V. Gayvoronsky, A. Galas, E. Shepeyavyy, Th. Dittrich, V. Yu. Timoshenko, S. A. Nepijko, M. S. Brodyn, F. Koch, „Giant nonlinear optical response of nanoporous anatase layers“
Appl. Phys. B 80 (2005) 97-100.

95. Th. Dittrich, H.-J. Muffler, M. Vogel, T. Guminskaya, A. Ogacho, A. Belaidi, E. Strub, W. Bohne, J. Röhrich, O. Hilt, M. Ch. Lux-Steiner, „Passivation of TiO₂ by ultra-thin alumina“, Appl. Surf. Sci. 240 (2005) 236-243.

2004

94. Th. Dittrich, „Retarded surface photovoltage response from dye molecules adsorbed on metal oxide surfaces“,
phys. stat. sol. (a) 201 (2004) R69-R71.

93. Th. Dittrich, L. Dloczik, T. Guminskaya, M. Ch. Lux-Steiner, N. Grigorieva, I. Urban, „Photovoltage characterization of CuAlO₂ crystallites“,
Appl. Phys. Lett. 85 (2004) 742.

92. A. Merson, Th. Dittrich, Y. Zidon, J. Rappich, Y. Shapira “Charge transfer from TiO₂ into adsorbed diazonium compounds”,
Appl. Phys. Lett. 85 (2004) 1075.

91. B. Mahrov, Th. Dittrich, L. Dloczik, G. Boschloo, A. Hagfeldt, „Photovoltage study of charge injection from dye molecules into transparent hole and electron conductors“,
Appl. Phys. Lett. 84 (2004) 5455.

90. L. Dloczik, Y. Tomm, R. Könenkamp, M. C. Lux-Steiner, Th. Dittrich, „CuAlO₂ prepared by ion exchange from LiAlO₂“,
Thin Solid Films 451-452 (2004) 116-119.

89. V. A. Skryshevskyy, Th. Dittrich, J. Rappich, „Infrared-active defects in a TiO₂ mixture of coexisting anatase and rutile phases“,
phys. stat. sol. (a) 201 (2004) 157-161.

2003

88. V. Kytin, Th. Dittrich, J. Bisquert, E. A. Lebedev, F. Koch, „Limitation of the mobility of charge carriers in a nanoscale heterogeneous system by dynamical Coulomb screening“,
Phys. Rev. B 68 (2003) 195308.

87. S. Garcia-Belmonte, V. Kytin, T. Dittrich, J. Bisquert, „Effect of humidity on the ac conductivity of nanoporous TiO₂“,
J. Appl. Phys. 94 (2003) 5261-5264.

86. F. Yahyaoui, Th. Dittrich, M. Aggour, J.-N. Chazalviel, F. Ozanam, J. Rappich, „Etch rates of anodic silicon oxides in dilute fluoride solutions“ J. Electrochem. Soc. 150 (2003) 8205.

85. V. A. Skryshevskyy, V. A. Vikulov, O. A. Tretiak, V. M. Zinchuk, F. Koch, Th. Dittrich, „Electrical characterization of gas sensing devices based on porous TiO₂“,
phys. stat. sol. (a) 197 (2003) 534-538.

84. V. Kytin, A. Petrov, V. Yu Timoshenko, V. Parkhutk, P. K. Kashkarov, J. Weidmann, F. Koch, Th. Dittrich, „Photoassisted electrical transport in porous TiO₂“,
phys. stat. sol. (a) 197 (2003) 487-491.

83. V. Kytin, H. E. Porteanu, O. Loginenko, Th. Dittrich, E. Konstantinova, V. Yu. Timoshenko, F. Koch, P. K. Kashkarov „The role of inter-

and intraparticle transport for the microwave photoresponse in nanocrystalline semiconductors", *phys. stat. sol. (a)* 197 (2003) 257-262.

82. Th. Dittrich, V. Duzhko, „Photovoltage in free-standing mesoporous silicon layers", *phys. stat. sol. (a)* 197 (2003) 107-112.

2002

81. E. A. Lebedev, T. Dittrich, „Space charge limited currents in porous silicon and anatase semiconductors", *Semiconductors* 36 (2002) 1188.

80. Th. Dittrich, T. Bitzer, T. Rada, V. Yu. Timoshenko, J. Rappich, „Non-radiative recombination at reconstructed Si surfaces", *Solid State Electronics*, 46 (2002) 1863-1872.

79. V. Duzhko, F. Koch, Th. Dittrich, „Transient photovoltage and dielectric relaxation time in porous silicon", *J. Appl. Phys.* 91 (2002) 9432-9434.

78. Th. Dittrich, V. Duzhko, V. Kytin, J. Rappich, F. Koch, „Trap limited photovoltage in ultrathin metal oxide layers", *Phys. Rev. B* 65 (2002) 1553191-5.

77. P. Hartig, Th. Dittrich, J. Rappich, „Engineering of Si surfaces by electrochemical grafting of p-nitrobenzene molecules", *Appl. Phys. Lett.* 80 (2002) 67-69.

76. P. Hartig, Th. Dittrich, J. Rappich, „Surface dipole formation and non-radiative recombination at p-Si(111) Si surfaces during electrochemical deposition of organic layers", *J. Electroanal. Chem.* 524-25 (2002) 120-126.

75. J. Rappich, Th. Dittrich, „Electrochemical passivation of Si and SiGe" in *Thin Films Handbook*, ed. By H. S. Nalwa (Academic Press, 2002), Vol. 4, pp. 1-56, *Thin Films* 29 (2002) 135-259. BUCHARTIKEL

2001

74. Th. Dittrich, V. Yu. Timoshenko, J. Rappich, L. Tsybeskov, „Room temperature electroluminescence from a c-Si p-i-n structure", *J. Appl. Phys.* 90 (2001) 2310-2313.

73. V. Yu. Timoshenko, Th. Dittrich, V. Lysenko, M. G. Lisachenko, F. Koch, „Free charge carriers in mesoporous silicon", *Phys. Rev. B* 64 (2001) 0853141-0853148

72. V. Duzhko, V. Yu. Timoshenko, F. Koch, Th. Dittrich, „Photovoltage in nanocrystalline porous TiO₂", *Phys. Rev. B* 64 (2001) 0752041-07520417.

71. V. Kytin, Th. Dittrich, „Injection currents into porous TiO₂", *phys. stat. sol. (a)* 185 (2001) 461-470.

70. V. Kytin, V. Duzhko, V. Yu. Timoshenko, J. Rappich, Th. Dittrich, „Injection photovoltage in thin anodic TiO₂ layers", *phys. stat. sol. (a)* 185 (2001) R1.

69. V. Kytin, Th. Dittrich, F. Koch, E. Lebedev, „Injection current and effect of negative capacitance in porous TiO₂", *Appl. Phys. Lett.* 79 (2001) 108-110

68. V. Duzhko, Th. Dittrich, B. Kamenev, V. Yu. Timoshenko, W. Brütting, „Diffusion photovoltage in poly-(p-phenylenevinylene)", *J. Appl. Phys.* 89 (2001) 4410-4412.

67. Th. Dittrich, Th. Burke, F. Koch, J. Rappich, „Passivation of an anodic oxide / p-Si interface stimulated by electron injection", *J. Appl. Phys.* 89 (2001) 4636-4642.

66. T. Bitzer, T. Rada, N. V. Richardson, T. Dittrich, F. Koch, „Gap states at the interface of ultra-thin oxide and organic films on Si(100)", *Solid State Phenomena* 76-77 (2001) 131-134.

2000

65. T. Bitzer, T. Dittrich, T. Rada, N. V. Richardson, „The electronic properties at the maleic anhydride / Si(100)-2x1 interface", *Chem. Phys. Lett.* 331 (2000) 433-438.

64. T. Bitzer, T. Rada, N. V. Richardson, T. Dittrich, F. Koch, „Gap state formation during the initial oxidation of Si(100)-2x1", *Appl. Phys. Lett.* 77 (2000) 3779-3781.

63. V. Yu. Timoshenko, Th. Dittrich, F. Koch, „Infrared free carrier absorption in mesoporous silicon",

phys. stat. sol. (b) 222 (2000) R1.

62. V. Yu. Timoshenko, Th. Dittrich, F. Koch, B. V. Kamenev, J. Rappich, „Annihilation of nonradiative defects on hydrogenated silicon surfaces under pulsed-laser irradiation“, Appl. Phys. Lett. 77 (2000) 3006-3008.

61. V. Timoshenko, Th. Dittrich, I. Sieber, J. Rappich, B. V. Kamenev, P. K. Kashkarov, „Laser induced melting of porous silicon“, phys. stat. sol. (a) 182 (2000) 325-330.

60. H. Porteanu, V. Yu. Timoshenko, Th. Dittrich, F. Koch „Microwave conductivity and raman spectroscopy of porous TiO₂“, phys. stat. sol. (a) 182 (2000) 201-206.

59. V. Yu. Timoshenko, V. Lysenko, Th. Dittrich, F. Koch, „Electrical conductivity of mesoporous Si: effect of the condensation of polar liquids“, phys. stat. sol. (a) 182 (2000) 163-168.

58. V. Yu. Timoshenko, V. Duzhko, Th. Dittrich, „Diffusion photovoltage in porous semiconductors and dielectrics“, phys. stat. sol. (a) 182 (2000) 227-232.

57. Th. Dittrich, „Porous TiO₂: Electron transport and application to dye sensitized injection solar cells“, phys. stat. sol. (a) 182 (2000) 447-455.

56. J. Rappich, V. Yu. Timoshenko, R. Würz, Th. Dittrich, „Is there a limit for the passivation of Si surfaces during anodic oxidation in acidic NH₄F solutions ?“, Electrochim. Acta 45 (2000) 4629-33.

55. V. Yu. Timoshenko, A. B. Petrenko, Th. Dittrich, W. Füssel, J. Rappich, „Photoluminescence characterization of nonradiative defect density on silicon surfaces and interfaces at room temperature“, Thin Solid Films 364 (2000) 196-199.

54. E. Konstantinova, J. Weidmann, Th. Dittrich, „Influence of adsorbed water and oxygen on the photoluminescence and EPR of porous TiO₂ (anatase)“, J. of Porous Materials 7 (2000) 389-392.

53. Th. Dittrich, J. Weidmann, V. Yu. Timoshenko, A. A. Petrov, F. Koch, M. G. Lisachenko, E. Lebedev, „Thermal activation of the electronic transport in porous titanium dioxides“, Material Science and Engineering B69-70 (2000) 489-493.

1999

52. Th. Dittrich, J. Weidmann, I. Uhlendorf, I. Laueremann, F. Koch, „Temperature and oxygen partial pressure dependent electrical conductivity in nanoporous rutile and anatase“, Appl. Phys. Lett. 75 (1999) 3982

51. H. E. Porteanu, E. Lifshitz, Th. Dittrich, V. Petrova-Koch, „Sidebands in nontunable photoluminescence of Si⁺-implanted SiO₂“, Phys. Rev. B 60 (1999) 15538-15541.

50. Th. Dittrich, V. Yu. Timoshenko, M. Schwartzkopff, E. Hartmann, J. Rappich, P. K. Kashkarov, F. Koch „Effect of local surface structure on electronic properties of hydrogenated Si surfaces“, Microelectronic Engineering 48 (1999) 75-78.

49. Th. Dittrich, M. Schwartzkopff, E. Hartmann, J. Rappich, „On the origin of the positive charge on hydrogenated Si surfaces and their dependence on the surface morphology“, Surface Science 437 (1999) 154-162.

48. V. Yu. Timoshenko, Th. Dittrich, J. Rappich, „Effect of roughness of hydrogenated Si(111) surfaces on defect annealing and formation under excimer laser irradiation“, phys. stat. sol. (a) 173 (1999) R3.

47. V. Yu. Timoshenko, A. B. Petrenko, M. N. Stolyarov, Th. Dittrich, W. Füssel, J. Rappich, „Quantitative analysis of room temperature photoluminescence of c-Si wafers excited by short laser pulses“, J. Appl. Phys. 85 (1999) 4171.

46. J. Weidmann, Th. Dittrich, E. Konstantinova, I. Laueremann, I. Uhlendorf, F. Koch, „Influence of oxygen and water related surface defects on the dye sensitized TiO₂ solar cell“, Solar Energy Materials and Solar Cells 56 (1999) 153.

1998

45. W. Brütting, E. Lebedev, S. Karg, T. Dittrich, V. Petrova-Koch, M. Schwoerer „Charge carrier mobility in poly(p-phenylenevinylene)“, SPIE VOL. 3281 (1998) 257-265.
44. Th. Dittrich, J. Weidmann, P. Beer, I. Lauermann, F. Koch, „Barrier lowering in dye sensitized por-TiO₂ solar cells“, Appl. Phys. Lett. 73 (1998) 1901.
43. Th. Dittrich, V. Yu. Timoshenko, J. Rappich, „Unusual stabilization of Si surfaces during roughening in fluoride solution“, Appl. Phys. Lett. 72 (1998) 1635.
42. Th. Dittrich, E. Lebedev, J. Weidmann, „Electron drift mobility in TiO₂ (anatase)“, phys. stat. sol. (a) 165 (1998) R5.
41. V. Yu. Timoshenko, E. A. Konstantinova, Th. Dittrich, „Investigation of photovoltage in por-Si/p-Si structures by pulsed photovoltage method“, Fizika i tehnika poluprovodnikov 32 (1998) 613-619.
40. V. Yu. Timoshenko, J. Rappich, Th. Dittrich, „Express characterization by in-situ PL of semiconductor surfaces during electrochemical and chemical treatments“, Appl. Surf. Sci. 123/124 (1998) 111.
- 1997
39. T. Schuster, T. Dittrich, H. E. Porteanu, T. Fischer, E. Hechtel, V. Petrova-Koch, F. Koch, „Improvement of the luminescing behaviour of Si⁺-implanted SiO₂ films“, Mat. Res. Soc. Symp. Proc. Vol. 452 (1997) 111.
38. Th. Dittrich, V. Yu. Timoshenko, J. Rappich, „In-situ characterization of the surface state density by photoluminescence during electrochemical treatments of silicon surfaces“, Mat. Res. Soc. Symp. Proc. Vol. 451 (1997) 203.
37. Th. Dittrich, V. Yu. Timoshenko, J. Rappich, „In-situ photoluminescence investigation of the initial por-Si formation in 0.2 M NH₄F (pH 3.2)“, Mat. Res. Soc. Symp. Proc. Vol. 452 (1997) 505.
36. J. Rappich, Th. Dittrich, V. Yu. Timoshenko, I. Beckers and W. Fuhs, „Influence of hydrogen incorporation into silicon on the room-temperature photoluminescence“, Mat. Res. Soc. Symp. Proc. Vol. 452 (1997) 797.
35. J. Rappich, V. Yu. Timoshenko, Th. Dittrich, „Nonradiative recombination on Si surfaces during anodic oxidation in fluoride solution“, Mat. Res. Soc. Symp. Proc. Vol. 448 (1997) 51.
34. E. Lebedev, Th. Dittrich, V. Petrova-Koch, S. Karg, W. Brütting, „Charge carrier mobility in poly(p-phenylenevinylene) studied by the time-of-flight technique“, Appl. Phys. Lett. 71 (1997) 2686.
33. Th. Dittrich, J. Rappich, V. Yu. Timoshenko, „Blocking effect of charge transfer at the porous silicon / silicon interface“, Appl. Phys. Lett. 70 (1997) 2705.
32. V. Yu. Timoshenko, J. Rappich, Th. Dittrich, „In-situ photoluminescence analysis of nonradiative recombination on silicon surfaces treated in fluoride solutions“, Jap. J. Appl. Phys. 36 (1997) L58.
31. J. Rappich, V. Yu. Timoshenko, Th. Dittrich, „Correlation between surface non-radiative recombination and current oscillation at p-Si(100) during electropolishing in fluoride solution“, Ber. Bunsenges. Chem. Phys. 101 (1997) 139.
30. J. Rappich, V. Yu. Timoshenko, Th. Dittrich, „In-Situ monitoring of electrochemical processes at the p-Si(100)/aqueous NH₄F electrolyte interface by photoluminescence“, J. Electrochem. Soc. 144 (1997) 493.
29. M. Dittrich, Th. Dittrich, I. Sieber, R. Koschel, „Elimination of phosphorus by artificial calcite precipitation in a stratified hardwater lake - a balance and EDX analysis“, Water Research 31 (1997) 237.
- 1996
28. Th. Dittrich, I. Sieber, W. Henrion, S. Rauscher, N. Wanderka, J. Rappich, „Selective laser induced melting of ultrathin nanoporous silicon layers“,

Appl. Phys. A 63 (1996) 467-470.25.

27. Th. Dittrich, K. Kliefoth, I. Sieber, J. Rappich, S. Rauscher, V. Yu. Timoshenko, „Electronic properties of thin Au/nanopor-Si/n-Si structures“, Thin Solid Films 276 (1996) 183.

26. Th. Dittrich, I. Sieber, S. Rauscher, J. Rappich, „Preparation of thin nanoporous silicon layers on n- and p-Si“, Thin Solid Films 276 (1996) 200.

25. V. Yu. Timoshenko, A. R. Gareeva, P. K. Kashkarov, V. I. Petrov, I. Sieber, Th. Dittrich, „Stable and efficient cathodo- and photoluminescence from ultrathin porous silicon layers“, Thin Solid Films 276 (1996) 287.

24. V. Yu. Timoshenko, P. K. Kashkarov, A. B. Matveeva, E. A. Konstantinova, H. Flietner, Th. Dittrich, „Influence of photoluminescence and trapping on the photovoltage at the por-Si/p-Si structure“, Thin Solid Films 276 (1996) 216.

23. E. A. Konstantinova, Th. Dittrich, V. Yu. Timoshenko, P. K. Kashkarov, „Adsorption induced modification of spin and recombination centers in porous silicon“, Thin Solid Films 276 (1996) 265.

1995

22. Th. Dittrich, H. Flietner, „Investigation of Electronic Properties of por-Si by the Pulsed Photovoltage Technique“, Mat. Res. Soc. Symp. Proc. 358 (1995) 581.

21. Th. Dittrich, S. Rauscher, V. Yu. Timoshenko, J. Rappich, I. Sieber, H. Flietner, H. J. Lewerenz, „Ultrathin luminescent nanoporous silicon on n-Si: pH dependent preparation in aqueous NH₄F solutions“, Appl. Phys. Lett. 67 (1995) 1134.

20. S. Rauscher, Th. Dittrich, M. Aggour, J. Rappich, H. Flietner, H. J. Lewerenz, „Reduced interface state density after photocurrent oscillations and electrochemical hydrogenation of n-Si(111): a SPV investigation“, Appl. Phys. Lett. 66 (1995) 3018.

19. Th. Dittrich, S. Rauscher, Th. Bitzer, M. Aggour, H. Flietner, H. J. Lewerenz, „Electronic

properties of n-Si(111) during electrochemical surface transformation towards H-termination“, J. Electrochem. Soc. 142 (1995) 2411-2413.

18. Th. Dittrich, P. K. Kashkarov, E. A. Konstantinova, V. Yu. Timoshenko, „Relaxation mechanisms of electronic excitation in nanostructures of porous silicon“, Thin Solid Films 255 (1995) 74-76.

17. Th. Dittrich, E. A. Konstantinova, V. Yu. Timoshenko, „Influence of molecules adsorption on porous silicon photoluminescence“, Thin Solid Films 255 (1995) 238-240.

16. Th. Dittrich, V. Yu. Timoshenko, P. K. Kashkarov, H. Flietner, „Influence of the oxidation process on the luminescence of HF treated porous silicon“, Thin Solid Films 255 (1995) 149-151.

1994

15. Th. Dittrich, H. Angermann, H. Flietner, Th. Bitzer, H. J. Lewerenz, „Surface electronic properties of electrolytically hydrogen terminated Si (111)“, J. Electrochem. Soc. 141 (1994) 3595.

14. H. Angermann, Th. Dittrich, H. Flietner, „Investigation of native oxide growth on HF treated Si (111) surfaces measuring the surface state distribution“, Appl. Phys. A 59 (1994) 193-197.

13. Th. Dittrich, V. Yu. Timoshenko, „Influence of H₂O atmosphere on the photoluminescence of HF passivated porous silicon“, J. Appl. Phys. 75 (1994) 5436-5437.

1993

12. Th. Dittrich, H. Angermann, W. Füssel, H. Flietner, „Electronic properties of the HF-passivated Si (111) surface during the initial oxidation in air“, phys. stat. sol. (a) 140 (1993) 463-470.

11. Th. Dittrich, M. Brauer, L. Elstner, „Simultaneous determination of surface potential and excess carrier concentration with the pulsed surface photovoltage method“, phys. stat. sol. (a) 137 (1993) K29.

1991

10. Th. Dittrich, S. John, W. John, „Characterization of the n-GaAs surface after CF₄, SF₆, CCl₂F₂, and CCl₂F₂:O₂ plasma treatment by photoreflectance“, phys. stat. sol. (a) 128 (1991) 435-446.

9. Th. Dittrich, S. John, „Influence of low power plasma hydrogenation on the barrier height and passivation of n-GaAs“, phys. stat. sol. (a) 126 (1991) K49-K52.

1990

8. Th. Dittrich, V. Yu. Timoshenko, „Laser induced modification of n-GaAs below the classical melting point“, phys. stat. sol. (a) 121 (1990) 547-554.

7. Th. Dittrich, „Laser induced generation of a micro-crack structure on (111) GaP“, phys. stat. sol. (a) 121 (1990) K15-K16.

6. J.-Th. Zettler, Th. Dittrich, L. Schrottke, „Modulation ellipsometry - a new technique for characterization of semiconductor materials and complex semiconductor structures“, phys. stat. sol. (a) 110 (1990) K91-K95.

5. Th. Dittrich, „Correlation between photoreflectance and CV measurements of n-GaAs epitaxial layers“, phys. stat. sol. (a) 119 (1990) 479-485.

4. N. G. Chechenin, T. Dittrich, K. K. Bourdel, A. M. Gaskov, M. S. Djidjojev, A. Obukhov, „Oberflächenstrukturen auf GaP nach Impulslaserbestrahlung“, Poverkhnostj: Fiz. Khim. Mekh. 10 (1990) 76-81.

1988

3. K. K. Bourdel, T. Dittrich, P. K. Kashkarov, N. G. Chechenin, „Untersuchung der Schichtung von GaP mit RBS und AES nach Impulslaserbestrahlung“, Poverkhnostj: Fiz. Khim. Mekh. 6 (1988) 139-141.

2. V. I. Emelyanov, P. K. Kashkarov, N. G. Chechenin, T. Dittrich, „Entstehung laserinduzierter periodischer Defektstrukturen auf Halbleiteroberflächen“,

Fizika Tverdovo Tela 30 (1988) 2259-2263.

1. K. K. Bourdel, T. Dittrich, N. G. Chechenin, „Laserinduzierte Defekte in GaP“, Fizika i Khimiya Obrabotki Materialov 2 (1987) 25-27.