

Publications Prof. Grunze

1. M. Grunze, W. Hirschwald
Vacuum microbalance investigations of heterogeneous surface reaction mechanisms
J. Vac. Sci. Technol. 11, 424-428
(1973)
2. M. Grunze
Struktur- und Fehlordnungsabhängigkeit der Reduktion von Zinkoxidoberflächen mit Kohlenmonoxid und Wasserstoff
Dissertation, F.U. Berlin
(1974)
3. M. Grunze, W. Hirschwald
Vacuum microbalance investigations on the pressure and temperature dependence of solid/gas reactions in Progress in Vacuum Microbalance Techniques
Vol. 3, Ed. C. Eyraud und M. Escoubes, Heyden and Son, London, 233.
(1975)
4. M. Grunze, W. Hirschwald, E. Thull
Characterization of thin zinc-rich and oxygenrich zinc oxide layers
J. Thin Solid Films, 351
(1976)
5. M. Grunze, W. Hirschwald, E. Thull
Der Einfluss einer intensiven Sauerstoffbehandlung auf die thermische, chemische und photochemische Stabilität von Zinkoxid
Z. Phys. Chem. N. F. 100, 201
(1976)
6. M. Grunze, W. Hirschwald, S. Krebs
Struktur- und Fehlordnungsabhängigkeit der Reduktion von Zinkoxid mit Kohlenmonoxid and Wasserstoff", Teil I: "Nichtstationäres Reduktionsverhalten
Z. Phys. Chem. N.F. 102, 57
(1976)
7. M. Grunze, W. Hirschwald, S. Krebs
Teil II: Die Druckabhängigkeit der Reduktionsgeschwindigkeit
Z. Phys. Chem. N. F. 102, 83
(1976)
8. M. Grunze, W. Hirschwald, S. Krebs
Teil III: Temperaturabhängigkeit der Reduktionsgeschwindigkeit
Z. Phys. Chem. N. F. 102, 83
(1976)
9. M. Grunze, W. Hirschwald
Teil IV: Modellvorstellungen und formalkinetische Behandlung
Z. Phys. Chem. N. F. 102, 93
(1976)

10. G. Ertl, M. Grunze, M. Weiss
Chemisorption on N₂ on an Fe(100)-surface
J. Vac. Sci. Technol. 13, 314-317
(1976)
11. D. Hofmann, W. Hirschwald, M. Grunze
The reduction of cadmiumoxid with CO
J. Vac. Sci. Technol. 13, 542
(1976)
12. F. Bozso, G. Ertl, M. Grunze, M. Weiss
Chemisorption of hydrogen in iron surfaces
Appl. Surface Science 1, 103
(1977)
13. F. Bozso, G. Ertl, M. Grunze, M. Weiss
Interaction of nitrogen with iron surfaces
J. Catalysis 49, 18
(1977)
14. M. Grunze, G. Ertl
UPS and thermal desorption studies on the interaction of ammonia with an Fe(111)-surface
Proc. 7th Intern. Vac. Congr. and 3rd Intern. Conf. Solid Surfaces, Wien, 1137
(1977)
15. M. Grunze, F. Bozso, G. Ertl, M. Weiss
Interaction of ammonia with Fe(111) and Fe(100) surfaces
Appl. Surface Science 1, 241
(1978)
16. Y. Takasu, R. Unwin, B. Tesche, A.M. Bradshaw, M. Grunze
Photoemission from palladium particles arrays on an amorphous silica substrate
Surface Science 77, 219
(1978)
17. M. Grunze
UV-photoelectron spectroscopy of carbon monoxide adsorbed on small palladium particles
Chem. Phys. Lett. 58, 409
(1978)
18. M. Grunze
Ein Vergleich zwischen der homogenen und heterogenen Hydrierung des Stickstoffes und Kohlenmonoxids
Habilitationsschrift, Freie Universität Berlin
(1978)
19. M. Grunze
The interaction of Hydrazine with an Fe(111)-surface
Surface Science 81, 603
(1979)

20. M. Grunze, R.K. Driscoll, G.N. Burland, J.C.L. Cornish and J. Pritchard
Molecular and dissociative chemisorption of N₂ on Ni(110)
Surface Science 89, 381
(1979)
21. F.P. Netzer, R.A. Wille and M. Grunze
Ultraviolet photoemission of Bromine adsorbed on Au(100)
Solid State Comm. 36, 159
(1980)
22. M. Golze, M. Grunze, R.K. Driscoll and W. Hirsch
**XPS as a tool to study the kinetics and thermodynamics of molecular adsorption:
N₂ on Ni(110)**
Appl. Surface Science 6, 464
(1980)
23. M. Bonasewicz, M. Grunze and R. Littbarski
Adsorption phenomena on ZnO
Current Topics in Materials Science, Vol. 7, ed. Kaldis, North Holland
(1981)
24. M. Grunze
Reduction and chlorination of ZnO
Current Topics in Materials Science, Vol. 7, ed. Kaldis, North Holland, 433-447.
(1981)
25. F.P. Netzer, R.A. Wille and M. Grunze
Ultraviolet photoemission of erbium exposed to oxygen, water and hydrogen
Surface Science 102, p.75
(1981)
26. J. Goschnick and M. Grunze
**A calibrated flow reactor to determine reaction rates: CO-oxidation on Pd(110)-
surface**
J. Vac. Sci. Technol. 18 (2), 561-565
(1981)
27. M. Grunze, M. Golze, R.K. Driscoll and P.A. Dowben
Ammonia adsorption and decomposition on a Ni(110)-surface
J. Vac. Sci. Technol. 18 (2), 611-615
(1981)
28. M. Golze, M. Grunze and W. Hirschwald
The effect of attractive lateral interactions on flash-desorption spectra
Vacuum 31, 697
(1981)
29. M. Grunze, W. Hirschwald and D. Hoffman
Zinc-Oxide: surface structure, stability and mechanisms of surface reactions
J. Cryst. Growth 52
(1981)

30. P.A. Dowben and M. Grunze
Interaction of CFCL₃ with an Fe(100)-surface. Part I: Adsorption and X-ray induced effects at 90 K
Ber. Bunsenges. Phys. Chem. 85, 728
(1981)
31. P.A. Dowben, M. Grunze, R.G. Jones and E. Illenberger
Interaction of CFCL₃ with an Fe(100)-surface. Part II: Adsorption and decomposition at ambient temperatures
Ber. Bunsenges. Phys. Chem. 85, 209
(1981)
32. P.A. Dowben, M. Grunze and R.G. Jones
Nitrogen induced reconstruction of a stepped iron surface
Surface Science 109, L519
(1981)
33. M. Grunze and P.A. Dowben
Adsorption of halocarbon compounds - A review
Appl. Surface Science 10, 209
(1982)
34. G. Schulz-Ekloff, D. Wright and M. Grunze
E.s.c.a. study of monomodal metal phases in a FAUJASITE matrix
Zeolites 2, 70
(1982)
35. M. Grunze
Synthesis and Decomposition of Ammonia
The Chemical Physics of Solid Surfaces and Heterogeneous Catalysis, eds. D.A. King and D.P. Woodruff, Elsevier Scientific Publ. Comp., Vol. 4, 143
(1982)
36. M. Grunze, C.R. Brundle and D. Tomanek
Adsorption and decomposition of Ammonia on a W(110) surface: photoemission fingerprinting and interpretation of the core level binding energies using the equivalent core approximation
Surface Science 119, 133-149
(1982)
37. M. Grunze, P.A. Dowben and C.R. Brundle
Ammonia cluster formation and NH₃-decomposition on an Ni(100)-surface
Surface Science 128, 311
(1983)
38. P.A. Dowben, M. Grunze and D. Tomanek
Bromine and Iodine adsorption on an Fe(100)-surface
Phys. Scripta, Vol. T4, 106
(1983)

39. D. Tomanek, P.A. Dowben and M. Grunze
Thermodynamic interpretation of core level binding energies
Surface Science 126, 112
(1983)
40. M. Grunze, P.H. Kleban, W.N. Unertl and Franz Rys
Evidence for a commensurate-incommensurate phase transition with an intermediate fluid phase: molecular nitrogen adsorbed on nickel(110)
Phys. Rev. Lett. 51, 582
(1983)
41. M. Golze, W. Hirschwald, M. Grunze and M. Polak
An XPS-study of the intermediates in nitrogen dissociation on an Fe(100)-surface
3S'83 Symposium on Surface Science, Obertraun, ed. P. Braun, HTU-Druck Wien, Austria, 254-257
(1983)
42. P.A. Dowben and M. Grunze
Combined application of AES and XPS to study carbon diffusion through the selvedge of a Fe(100)-surface
J. Electr. Spectr. Rel. Phen. 28, 249
(1983)
43. M. Grunze, R.K. Driscoll, W.N. Unertl and M. Golze
Thermodynamic and kinetic measurements for N₁-adsorption on an Ni(110)-surface
3S'83 Symposium on Surface Science, Obertraun, ed. P. Braun, HTU-Druck Wien, Austria, 208
(1983)
44. P.A. Dowben, M. Grunze and D. Wright
Surface segregation of Chromium in a Fe₇₂Cr₂₈(110) crystal
Surface Science 134, L524
(1983)
45. M. Grunze, J. Fuhler, M. Neumann, C.R. Brundle, D. Auerbach and J. Behm
A search for precursor states to molecular nitrogen chemisorption on Ni(100), Re(0001) and W(100) surfaces at ~20 K
Surface Science 139, 109
(1984)
46. M. Grunze, P.A. Dowben and R. Jones
Thermodynamic measurements for N₂ adsorption on Ni(100)
Surface Science 141, 455
(1984)
47. M. Grunze, M. Golze, J. Fuhler and M. Neumann
The intermediates in nitrogen dissociation on Rhenium and Iron surfaces
Proc. of 8th Intern. Congress on Catalysis, Berlin, 455
(1984)

48. M. Grunze, W.N. Unertl and M. Golze
Adsorption of molecular N₂ on Ni(110): The effect of phase transitions on thermodynamic and kinetic phenomena
J. Vac. Sci. Technol. A2 (2), 896-897
(1984)
49. M. Grunze, M. Golze, H.-J. Freund, H. Pulm, U. Seip, M.C. Tsai, G. Ertl and J. Kupper
 π -bonded N₂ on Fe(111): The precursor of dissociation
Phys. Rev. Lett. 53, 850
(1984)
50. M. Grunze, H.J. Ruppender and J.H. Block
Ammonia decomposition on single crystal metal surfaces
Proc. 9th Ibero-American Symposium on Catalysis, Lissabon, 468
(1984)
51. C.R. Brundle, J. Behm, D.J. Auerbach and M. Grunze
Search for precursor states: Molecular adsorption of N₂ on Ni(100)
J. Vac. Sci. Technol. A2 (2), 1014
(1984)
52. G. Strasser, M. Grunze and M. Golze
The mechanism of Nitrogen dissociation on Fe(111)
J. Vac. Sci. Technol., A3 (3), 1562
(1985)
53. P.A. Dowben, M. Grunze and S. Varma
Characteristic electron energy loss studies of molecular halogens adsorbed on Fe(100)
Solid State Communications, Vol. 57, 631
(1986)
54. M. Grunze
Thermodynamics and kinetics in weakly adsorbed phases
Chemistry and Physics of Solid Surfaces VI, eds. R. Vanselow and R. Howe, Springer Berlin,
Vol. VI, 197-235
(1986)
55. P.A. Dowben and M. Grunze
Dissociative and molecular Bromine adsorption on an Fe(100) surface
Langmuir, 2, 368-372
(1986)
56. L.J. Whitman, C.E. Bartosch, W. Ho, G. Strasser, M. Grunze
Alkali-metall promotion of a dissociation precursor: N₂ on Fe(111)
Phys. Rev. Lett. 56, (18), 1984-1987
(1986)

57. M. Grunze, G. Strasser and O. Elshazly
Chemical cleaning of iron and nickel single crystal surfaces
 J. Vac. Sci. Technol. A4 (5), 2396-2398
 (1986)
58. J. Goschnick, M. Grunze, W.N. Unertl, J.H. Block and J. Loboda-Cackovic
Adsorption of O₂ on Pd{110}
 Surface Science 178, 831
 (1986)
59. M. Wolf, A. Goschnick, J. Loboda-Cackovic, M. Grunze, W.N. Unertl and J. H. Block
LEED studies on a clean and contaminated Pd{110}-surface
 Surface Science, 182, 489-498
 (1987)
60. M. Golze, M. Grunze, and W.N. Unertl
A multitechnique approach to weakly chemisorbed phases: N₂ on Ni{110}
 Progress in Surface Science, Pergamon Press, Vol. 22 (2), 101-179
 (1987)
61. M. Grunze and R.N. Lamb
Preparation and adhesion of ultrathin polyimide films on polycrystalline silver
 Chem. Phys. Lett. 133, 283
 (1987)
62. J. Goschnick, J. Loboda-Cackovic, J.H. Block and M. Grunze
The reaction of carbonmonoxide with chemisorbed oxygen on Pd{110}: An example for a structure sensitive reaction
 Kinetics of Interface Reactions, eds. M. Grunze and H.J. Kreuzer, Springer in Surface Science, Vol. VIII, Springer, Heidelberg, 269
 (1987)
63. M. Grunze and R. Lamb
Characterization of ultrathin polyimide films ($d \sim 11 \text{ \AA}$) formed by vapor deposition of 4,4 oxydianiline and 1,2,4,5-benzenetetracarboxylic anhydride
 J. Vac. Sci. Technol. A5 (4), 1685-1686
 (1987)
64. M. Grunze, G. Strasser, M. Golze, and W. Hirschwald
Thermodynamic and kinetic parameters of molecular nitrogen adsorption on Fe{111}
 J. Vac. Sci. Technol. A5 (4), 527-534
 (1987)
65. M. Grunze, G. Strasser and M. Golze
Precursor mediated and direct adsorption of molecular nitrogen on Fe{111}
 Appl. Physics A44, 19-29
 (1987)

66. H.J. Freund, B. Bartos, R.P. Messner, M. Grunze, H. Kuhlenbeck and M. Neumann
The adsorption of N₂ on Fe{111}: Angle resolved photoemission and theoretical model studies
Surface Science 185, 187-202
(1987)
67. J. Goschnick, M. Grunze, J. Loboda-Cackovic and J.H. Block
Sticking probability of CO on an oxygen covered Pd{110}-surface under reaction conditions
Surface Science 189/190, 137-146
(1987)
68. M. Grunze, J.P. Baxter, C.W. Kong, R.N. Lamb, W.N. Unertl and C.R. Brundle
Vapor phase deposition and growth of polyimide films on Copper
G.W. Rubloff, (Ed.) in Deposition and Growth: Limits for Microelectronics, American Institute of Physics, Conference Proceedings No. 167, Anaheim, CA, 355.
(1987)
69. M. Grunze, W.N. Unertl, S. Gnanarajan and J. French
Chemistry of adhesion at the polyimide metal interface in Proceedings of the Materials Research Society Symposium on Electronic Packaging
Materials Science, Vol. 108, Boston, MA, December, 189-199
(1987)
70. P.A. Dowben, A. Miller, H.J. Ruppender and M. Grunze
The influence of surface metal composition of Fe-Cr alloys on dissociative adsorption of N₂
Surface Science 193, 336-352
(1988)
71. R.N. Lamb, J. Baxter, M. Grunze, C.W. Kong and W.N. Unertl
An XPS study of the composition of thin polyimide films formed by vapor deposition
Langmuir 4, 249-256
(1988)
72. M. Grunze, H. Ruppender and O. Elshazly
Chemical cleaning of metal surfaces in vacuum systems by exposure to reactive gases
J. Vac. Sci. Technol. A6, 1266-1275
(1988)
73. M. Grunze and R.N. Lamb
Adhesion of vapor phase deposited ultrathin polyimide films on polycrystalline silver
Surface Science 204, 183-212
(1988)

74. W.N. Unertl, M. Grunze and J.J. Weimer
Surface properties of a lead-tin alloy
 Diffusion at Interfaces: Microscopic Concepts, eds. M. Grunze and H.J. Kreuzer, in Springer Series in Surface Sciences, Vol. 12, Springer Verlag Berlin, 132-141 (1988)
75. H. Ruppender, M. Grunze, P.A. Dowben
Formation of Cr₂N overlayers on a Fe/Cr(110) crystal
 J. Vac. Sci. Technol. A6, 784 (1988)
76. J. Baxter, M. Grunze and C.W. Kong
Interaction of SO₂ with copper and copper-oxide surfaces
 J. Vac. Sci. Technol. A 6 (3) , 1123-1127 (1988)
77. M. Grunze and R.N. Lamb
Chemistry of adhesion at the polyimide/metal interface
 extended abstract, Symposium on Surface Science, Obertraun, ed. P. Braun, HTU-Druck Wien, Austria (1988)
78. J.J. Weimer, J. Kokosinski, M.R. Cook and M. Grunze
Contamination of chip surfaces by particles during destructive physical analysis of integrated circuit devices
 Particles on Surfaces 1, ed. K.L. Mittal, Plenum Press, New York, 69-76 (1988)
79. M. Wolf, J. Loboda - Cackovic, K. Kambe, J.H. Block and M. Grunze
Anomalous electron energy-loss spectra of Ni(430) and a disordering of atomic steps
 J. Phys.: Condens. Matter 1, 3701-3707 (1989)
80. M. Grunze, D.J. Dwyer, S. Marohn
Surface science studies on the surface acoustic wave hydrogen sulfide sensor
 Dechema Monographien Bd. 118, "Katalyse", Hrsg. H. Kral u. D. Behrens, VCH Weinheim, 273-284 (1989)
81. R.N. Lamb, M. Grunze, J. Baxter, C.W. Kong and W.N. Unertl
Vapor deposition of polyimide and polyimide precursors on Copper
 Adhesion and Friction, eds. M. Grunze and H.J. Kreuzer, Springer Series in Surface Sciences, Vol. 17, 36-52 (1989)

82. M. Grunze
Properties and adhesion of polyimides in microceronic devices
 Advanced Materials and Processes, eds. H.E. Exner and V. Schumacher, Proceedings of EUROMAT '89 'European Conference on Advanced Materials and Processes', Nov. 22-24, (1989)
 Aachen (FRG), Vol. 2, 871-880 (1990)
83. H.J. Ruppender, M. Grunze, C.W. Kong, M. Wilmers
In situ X-ray photoelectron spectroscopy of surfaces at pressures up to 1 mbar
 Surf. Interface Analysis, Vol. 15 (4), 245-293 (1990)
84. M. Grunze, G. Hähner, M. Kinzler, A. Killinger, C. Mainka, W. Meyer, A. Ortega-Villamil, Ch. Wöll und W. Schrepp
Chemische Bindung und Orientierung von Makromolekülen auf Oberflächen
Berichtsb. zum Symposium "Haftung bei Verbundwerkstoffen und
Werkstoffverbunden",
 W. Brockmann (Hrsg.), Konstanz, 21. und 22. Juni 1990, 11-31 (1990)
85. C. Hahn, T. Strunskus, D. Frankel and M. Grunze
FTIRAS study of vapor deposited Pyromellitic dianhydride and Oxydianilin and their solid state reaction to Polyimide on Pt(111)
 J. Electr. Spectr. Rel. Phen. 54/55, 1123-11 (1990)
86. T. Strunskus, M. Grunze and S. Gnanarajan
Solventless polyamic acid - Consequences for reactivity with metals
 Metallization of Polymers, E. Sacher, J.J. Pireaux and S. Kowalczyk (Eds), ACS Symposium Series 440, 353-369 (1990)
87. Liew, S., U.R. Kelkar, , Z.A. Shana, D.T. Haworth, M. Grunze and F. Josse
Applications of Lithium Niobate acoustic plate mode as sensor for conductive liquids
 IEEE (1990), Ultrasonics Symposium Proceedings, Vol. 1, 285-290 (1990)
88. M. Grunze, A. Killinger, C. Thümmeler, C. Hahn, T. Strunskus
Comparison between the interfacial chemistry of metallized polyimides and polyimide films on bulk metal substrates Proceedings of the 2nd Symposium on **Metallized Plastics: Fundamental and Applied**
 Aspects, Electrochemical Society Meeting in Montreal, May 1990, ed. K.L. Mittal, 165-177 (1991)

89. T. Strunskus, M. Grunze, C. Hahn and D. Frankel
Interaction of evaporated copper with vapor-deposited thin polyimide films
 J. Vac. Sci. Technol. A 9 (3), 1272-1277
 (1991)
90. G. Hähner, M. Kinzler, Ch. Wöll, M. Grunze, M. Scheller, L.S. Cederbaum
NEXAFS-determination of alkyl-chain orientation: Breakdown of the 'Building Block' scheme
 Phys. Rev. Lett. 67 (7), 851-854
 (1991)
91. P.A. Dowben, H.J. Ruppender, M. Grunze
Molecular nitrogen adsorption on Cr(100)
 Surface Science Lett. 254, L482-L486
 (1991)
92. M. Buck, F. Eisert, J. Fischer, M. Grunze, F. Träger
Investigation of self-organizing thiol films by optical Second Harmonic Generation and X-ray photoelectron spectroscopy
 Appl. Phys. A 53, 552-556
 (1991)
93. G. Hähner, M. Kinzler, Ch. Wöll, M. Grunze, M. Scheller, L.S. Cederbaum
Errata: NEXAFS-determination of alkyl-chain orientation: Breakdown of the 'Building Block' scheme
 Phys. Rev. Lett. 69 (4), 694
 (1992)
94. F. Josse, Z.A. Shana, D.T. Haworth, S. Liew and M. Grunze
On the use of ZX-LiNbO₃ acoustic plate mode devices as detectors for dilute electrolytes
 Sensors and Actuators B, 9, 97-112
 (1992)
95. Killinger, C. Thümmeler, M. Grunze, W. Schrepp
Interfacial chemistry of Langmuir-blodgett deposited polyimide films on Si(100)
 J. Adhesion 36, 229-245
 (1992)
96. A.Kruse, C. Thümmeler, A. Killinger, W. Meyer und M. Grunze
X-ray photoemission studies on vapour-phase-deposited polyamide films
 J. Electr. Spectr. Rel. Phen. 60, 193-209
 (1992)
97. W. Meyer, M. Grunze, R. Lamb, A. Ortega-Vilamil, W. Schrepp and W. Braun
Langmuir-blodgett deposited polyimide films on gold and silver surfaces
 Surface Science 273, 205-218
 (1992)

)

98. R. Dahint, M. Grunze, F. Josse and J.C. Andle
Probing of strong and weak electrolytes with acoustic wave fields
 Sensors and Actuators, Elsevier Sequoia S.A., Vol. 9 (2), 155-162
 (1992)
99. M. Kinzler, M. Grunze, N. Blank, H. Schenkel and I. Scheffler
X-ray photoelectron microscopy applied to metal/epoxy laminates
 J. Vac. Sci. Technol. A 10 (4), 2691-2697
 (1992)
100. G. Hähner, M. Kinzler, Ch. Thümmel, Ch. Wöll and M. Grunze
The structure of self-organizing organic films: A near edge X-ray absorption fine structure investigation of thiol layers adsorbed on gold
 J. Vac. Sci. Technol. A 10 (4), 2758-2763
 (1992)
101. M. Buck, F. Eisert, J. Fischer, M. Grunze, F. Träger
Adsorption kinetics of n-alkyl thiols on gold studied by Second Harmonic Generation and X ray photoelectron spectroscopy
 J. Vac. Sci. Technol. A 10, 926 – 929
 (1992)
102. M. Grunze, D.J. Dwyer, M. Nassir, Y. Tsai
Controlled-Atmosphere Photoelectron Spectroscopy (CAPES)
 Surface Science of Catalysis: In Situ Probes and Reaction Kinetics, Eds. D.J. Dwyer und F.M. Hoffmann, ACS Books, Washington DC, ACS Symposium Series 482, 169-182
 (1992)
103. S. Seeger, K. Bierbaum, R. Dahint, C.L. Feng, M. Mantar, M. Grunze
Preparation and characterisation of antibody films on Lithium Niobate surfaces in Synthetic Microstructures in Biological Research, Eds. Schnur, Peckerar, Plenum Press, NY, 53-66
 (1992)
104. M. Buck, F. Eisert, J. Fischer, M. Grunze, F. Träger
Optical Second Harmonic Generation of thiols adsorbed on gold
 Mat. Res. Soc. Symp. Proc., Vol. 237, 297-301
 (1992)
105. M. Kinzler and M. Grunze
Der Blick durch das chemische Mikroskop
 Zeitschrift: Forschung - Mitteilungen der DFG 3-4, 10-12
 (1992)
106. M. Grunze and M. Buck
Second Harmonic Generation applied to the formation of ultrathin organic films on inorganic substrates
 Springer Series in Surface Science, Vol. 73, 67-77
 (1993)

107. M. Grunze, G. Hähner, Ch. Wöll and W. Schrepp
Interphase orientation of polyimide on polycrystalline gold, silver and Si(100)
 Surf. Interface Analysis 20, 393-401
 (1993)
108. M. Kinzler and M. Grunze
The view through the chemical microscope investigating surfaces with X-ray
 German Research-Reports of the DFG, No 1, 30-32
 (1993)
109. M. Grunze and T. Strunskus
Chemical and structural studies of polyimide/metal interfaces
 Handbook of Polymer Metallization, Ed. S.P. Kowalczyk, Marcel Dekker, New York
 (1992)
110. R. Dahint, Z.A. Shana, F. Josse, S.A. Riedel and M. Grunze
Identification of metal ion solutions using acoustic plate mode devices and pattern recognition
 IEEE Trans. UFFC, Vol. 40 (2), 114-120
 (1993)
111. T. Strunskus, C. Hahn and M. Grunze
Mechanism of X-ray-induced degradation of pyromellitic dianhydride
 J. Electr. Spectr. Rel. Phen. 61, 193-216
 (1993)
112. K. Edinger, A. Gölzhäuser, K. Demota, Ch. Wöll and M. Grunze
Formation of self-assembled monolayers of n-alkyl-thiols on gold: A STM study on the modification of substrate morphology
 Langmuir, Vol. 9 (1), 4-8
 (1993)
113. G. Hähner, Ch. Wöll, M. Buck and M. Grunze
Investigation of intermediate steps in the self-assembly of n-Alkyl-thiols on gold surfaces by soft X-ray spectroscopy
 Langmuir, Vol. 9 (8), 1955 – 1958
 (1993)
114. H.U. Müller, B. Völkel, M. Hofmann, Ch. Wöll and M. Grunze
Emission properties of electron point sources
 Ultramicroscopy 50, 57-64
 (1993)
115. M. Buck, F. Eisert, M. Grunze, F. Träger
Wavelength dependent Second Harmonic Generation: A new spectroscopic tool for the study of interfaces
 Berichte Bunsengesellschaft 97, No. 3, 399-401
 (1993)

116. C.M. Schneider, K. Meinel, K. Holldack, M. Kinzler, M. Grunze, H.P. Oepen, H. Petersen, J. Kirschner
Magnetic spectromicroscopy from Fe(100)
J. Appl. Phys. 63 (17), 2432-2434
(1993)
117. N. Ernst, J. Unger, H.-W. Fink, M. Grunze, H.U. Müller, B. Völkel, M. Hofmann, Ch. Wöll
Comment on: Field-emission spectroscopy of single-atom tips
Phys. Rev. Letters, Vol. 70 (16), 2503
(1993)
118. R. Dahint, K. Bierbaum and M. Grunze
Applications of Lithium Niobate acoustic plate mode devices as sensors for liquids
Springer Series Surf. Sci., Vol. 33, 279- 290
(1993)
119. M. Grunze
Preparation and characterisation of self-assembled organic films on solid substrates
Physica Scripta T49, 711-717
(1993)
120. R. Dahint, F. Josse, M. Grunze
Analyse des Salzgehaltes von Lösungen mit Ultraschall
Spektrum der Wissenschaft, Juli (1993), 24-26
(1993)
121. C.M. Schneider, K. Meinel, K. Holldack, H.P. Oepen, M. Grunze, J. Kirschner
Magnetic spectro-microscopy using magnetic-dichroic effects in photon-induced auger electron emission
Mat. Res. Soc. Symp. Proc. San Francisco, Vol. 313, 631-636
(1993)
122. T. Kachel, W. Gudat, K. Holldack, M. Grunze
Element specific magnetic domain imaging from an antiferromagnetic overlayer system
Appl. Phys. Lett. 64 (5), 655-657
(1994)
123. K. Holldack, M. Grunze
Recent advances in X-ray photoelectron microscopy
Anal. Chimica Acta 297/1-2, 125-138
(1994)
124. M. Kinzler, M. Grunze, N. Blank, H. Schenkel, I. Scheffler
Aging process of metal/epoxy laminates investigated with x-ray photoelectron microscopy and spectroscopy
J. Adhesion 45, 207 – 226
(1994)

125. M. Kinzler, A. Schertel, G. Hähner, Ch. Wöll, M. Grunze, H. Albrecht, G. Holzhüter, Th. Gerber
Structure of mono- and multilayer Langmuir-Blodgett films from Cd arachidate and Ca arachidate
 J. Chem. Phys. 100 (10), 7722-7735
 (1994)
126. M. Grunze, M. Buck, Ch. Dressler, M. Langpape
New experimental approaches for the study of polymer/metal interphases
 J. Adhesion 45, 227-243
 (1994)
127. Ch. Hahn, T. Strunskus, M. Grunze
FTIRRAS study of the adsorption and crystallization of pyromellitic dianhydride on Pt(111)
 J. Phys. Chem. 98, 3851- 3858
 (1994)
128. B. Frühberger, M. Grunze, D.J. Dwyer
The formation and stability of sulfhydryl (SH) groups on Au(110) surface
 J. Phys. Chem. 98, 609-616
 (1994)
129. F. Bender, R. Dahint, F. Josse, M. Grunze, M. v. Schickfus
Mass sensitivity of acoustic plate mode liquid sensors on ZX-LiNbO₃
 J. Acoust. Soc. Am. 95 (3), 1386-1389
 (1994)
130. Ch. Zubrägel, F. Schneider, M. Neumann, G. Hähner, Ch. Wöll, M. Grunze
Electronic structure of alkane-chains. Complete one-dimensional band structures of the valence states
 Chem. Phys. Letters 219, 127-131
 (1994)
131. M. Buck, Ch. Dressler, M. Grunze, T. Schaich, W. Schrepp, D. Segal, F. Träger
Polymer films on metals investigated by optical Second Harmonic Generation
 J. Anal. Chem. 349, 58-62
 (1994)
132. C.M. Schneider, Z. Celinski, M. Neuber, C. Wilde, M. Grunze, K. Meinel, J. Kirschner
Magneto-dichroic effects in energy- and angle-resolved photoemission: contrast mechanisms for the elementally sensitive imaging of magnetic domains
 J. Phys. Condens. Matter 6, 1177-1182
 (1994)
133. M. Hofmann, H. Wegner, A. Glenz, Ch. Wöll, M. Grunze
Adsorption of the cyclic ether trioxane on Cu(111)
 J. Vac. Sci. Technol. A 12 (4), 2063-2068
 (1994)

134. R. Bennewitz, M. Reichling, R.M. Wilson, R. T. Williams, K. Holldack, M. Grunze, E. Matthias
Characterization of Ca aggregates on CaF₂(111)-surfaces by atomic force, XPS, and Fluorescence Microscopy
Nucl. Instr. Meth. B, 91, 623
(1994)
135. R. Dahint, M. Grunze, F. Josse, J. Renken
Acoustic plate mode sensor for immunochemical reactions
Anal. Chem. 66, 2888-2892
(1994)
136. A. Pertsin, M. Grunze
Low-energy structures of a monolayer of octadecanethiol self-assembled on Au(111)
Langmuir 10, 3668-3674
(1994)
137. R. Dahint, M. Grunze, H. Quirrenbach
Nachweis gelöster Moleküle mit Schallwellen: Konzert der Moleküle
Ruperto Carola 2, 26-31
(1994)
138. C.M. Schneider, K. Meinel, J. Kirschner, M. Neuber, M. Grunze
Element-spezifische Abbildung magnetischer Mikrostrukturen
Physikal. Bl. 50 (10), 939-941
(1994)
139. J. Schumacher, R. Dahint, F. Josse, M. Grunze
Experimental determination of mass sensitivity of APM sensors by CVD thin films
Proc. IEEE Ultrasonics Symposium, Vol. 1, 629-632
(1994)
140. C.W. Hutchings, M. Grunze
Apparatus for chemical vapor deposition (CVD) of polyimide films
Rev. Sci. Instr. 66 (7), 3943-3947
(1995)
141. F. Josse, J.C. Andle, J.F. Vetelino, R. Dahint, M. Grunze
Theoretical and experimental study of mass sensitivity of PSAW-APMs on ZX-LiNbO₃
IEEE Trans. UFFC, Vol 42 (4), 517-524
(1995)
142. M. Buck, F. Eisert, M. Grunze, F. Träger
Second order nonlinear susceptibilities of surfaces: A systematic study of the wavelength and coverage dependence of thiol adsorption on polycrystalline gold
Appl. Phys. A, 60, 1-12
(1995)

143. K. Holldack, M. Grunze, M. Kinzler, H. Kerkow, C.R. Brundle
Photoelectron- and NEXAFS-microscopy of radiation induced changes in Cd-arachidate films
 J. Electr. Spectr. Rel. Phen. 73, 239-247
 (1995)
144. M. Kinzler, W. Schrepp, Ch. Wöll, M. Grunze
Substrate effects on the structure of Langmuir-Blodgett-monolayers of Cd arachidate using x ray absorption spectroscopy
 Langmuir 11, 696 – 698
 (1995)
145. K. Bierbaum, M. Grunze, A.A. Baski, L.F. Chi, W. Schrepp, H. Fuchs
Growth of self-assembled n-alkyltrichlorosilane films on Si(100) investigated by atomic force microscopy
 Langmuir 11 (6), 2143-2150
 (1995)
146. A. Gölhäuser, S. Panov, M. Mast, A. Schertel, M. Grunze, Ch. Wöll
Growth of pyromellitic dianhydride on an amino-terminated surface
Surface Science 334, 235-247
 (1995)
147. Ch. Zubrägel, C. Deuper, F. Schneider, M. Neumann, A. Schertel, Ch. Wöll, M. Grunze
The presence of two different sulfur species in self-assembled films of n-alkanethiols on Au and Ag surfaces
 Chem. Phys. Lett. 238, 308-312
 (1995)
148. R. Dahint, F. Bender und M. Grunze
Proteinnachweis mit akustischen Sensoren
 Physikalische Blätter 51 (6), 509-511
 (1995)
149. K. Bierbaum, M. Kinzler, Ch. Wöll, M. Grunze, G. Hähner, S. Heid, F. Effenberger:
A near edge X-ray absorption fine structure spectroscopy and X-ray photoelectron spectroscopy study on the film properties of self-assembled monolayers of organosilanes on oxidized Si(100)
 Langmuir 11 (2), 512 – 518
 (1995)
150. H.U. Müller, C. David, B. Völkel, M. Grunze
Nanostructuring of alkanethiols with ultrasharp field emitters
 J. Vac. Sci. Technol. B, 13 (6), 2846-2849
 (1995)

151. C. Mainka, P.S. Bagus, A. Schertel, T. Strunskus, M. Grunze, Ch. Wöll
Linear dichroism in X-ray adsorption spectroscopy of strongly chemisorbed planar molecules: role of adsorption induced rehybridisations
Surface Science 341, L1055-L1060
(1995)
152. J. Renken, R. Dahint, M. Grunze, F. Josse
Multifrequency evaluation of different immunosorbents on acoustic plate mode sensors
Anal. Chem. 68, 176-182
(1996)
153. S. Heid, F. Effenberger, K. Bierbaum, M. Grunze
Self-assembled mono- and multilayers of terminally functionalized organosilyl compounds on Silicon substrates
Langmuir 12 (8), 2118-2120
(1996)
154. T. Strunskus, M. Grunze, G. Kochendoerfer, Ch. Wöll
Identification of physical and chemical interaction mechanisms for Gold, Silver, Copper, Palladium, Chromium and Potassium with polyimide surfaces
Langmuir 12 (11), 2712-2725
(1996)
155. C. David, H.U. Müller, B. Völkel, M. Grunze
Low energy electron proximity printing using a self-assembled monolayer resist
Proc. Int. Conf. Micro- and Nanofabrication 1995, Microelectronic Engineering 30, 57-60
(1996)
156. B. Frühberger, M. Grunze, D.J. Dwyer
Surface chemistry of H₂S sensitive tungsten oxide films
Sensors and Actuators B, 31, 167-174
(1996)
157. Ch. Taut, A.J. Pertsin, M. Grunze
Monte Carlo studies of self-assembled monolayers using simple generalized models. 1. Behavior of headgroups in a periodic substrate field
Langmuir 12 (14), 3481-3489
(1996)
158. M. Buck, Ch. Dressler, M. Grunze, F. Träger
Non-destructive in situ analysis of interface processes and thin film growth
J. Adhesion, 58, 227-241
(1996)
159. M. Grunze, A. Schertel, T. Strunskus, R. Uhrig, A. Welle, Ch. Wöll
The role of adhesion promoters on the molecular and mesoscopic structure of the interphase
J. Adhesion, 58, 43-67
(1996)

160. A. Schertel, G. Hähner, M. Grunze, Ch. Wöll
Near edge x-ray adsorption fine structure investigation of the orientation and thermally induced order-disorder transition in thin organic films containing long chain hydrocarbons
J. Vac. Sci. Technol. A, 14 (3), 1801-1806
(1996)
161. C.R. Brundle, M. Grunze, U. Mäder, N. Blank
Detection and characterization of dimethylethanolamine-based corrosion inhibitors at steel surfaces; (I) the use of XPS and ToF-SIMS
Surf. Interface Analysis, Australasia-Asia XPS Symp. (1995), Vol. 24 (9), 549-563
(1996)
162. A. Welle, M. Grunze
Polyphosphazenes as antithrombotic coatings for prosthetic heart valves
Proceedings 19th Annual Meeting Adhesion Society, Feb. 1996, ed. by T.C. Ward, Myrtle Beach, 432-435
(1996)
163. T. Strunskus, M. Grunze
Vapor Phase Deposition of Polyimides
Polyimides: Fundamentals and Applications, ed. by M.K. Ghosh und K.L. Mittal, Marcel Dekker, Inc., 187-205
(1996)
164. C.M. Schneider, K. Meinel, J. Kirschner, M. Neuber, C. Wilde, M. Grunze, K. Holldack, Z. Celinski, F. Baudelet
Element specific imaging of magnetic domains in multicomponent thin film systems
J. Magnetism and Magnetic Mat. 162, 7-20
(1996)
165. R. Dahint, R. Ros Seigel, P. Harder, M. Grunze, F. Josse
Detection of non-specific protein adsorption at artificial surfaces by the use of acoustic plate mode sensors
Sensors and Actuators B, 35-36, 497-505
(1996)
166. F. Bender, F. Meimeth, R. Dahint, M. Grunze, F. Josse
Mechanisms of interaction in acoustic plate mode immunosensors
Sensors and Actuators B, 40, 105-110
(1997)
167. C. Mainka, H. Wegner, A. Schertel, Ch. Wöll, M. Grunze
A multitechnique spectroscopic investigation of the adsorption of pyromellitic dianhydride (PMDA) on Pt(111)
Physikal. Chemie, Bd. 198, 221-243
(1997)

168. P. Harder, K. Bierbaum, Ch. Wöll, M. Grunze, S. Heid, F. Effenberger
Induced orientational order in long alkyl chain aminosilane molecules by preadsorbed octadecyltrichlorosilane on hydroxylated Si(100)
 Langmuir 13 (3), 445-454
 (1997)
169. A.J. Pertsin, M. Grunze
Monte Carlo studies of self-assembled monolayers using simple generalized models. II. A two-site molecular model
 J. Chem. Phys. 106 (17), 7343-7351
 (1997)
170. M. Grunze, A.J. Pertsin
Two simple models for computer simulation of self-assembled monolayers
Proceedings CAT 96,
 J. Mol. Cat. A Chemical, 119, 113-123
 (1997)
171. M.H. Koch, A.J. Hartmann and R.N. Lamb, M. Neuber, J. Walz, M. Grunze
X-ray absorption spectroscopy study of thin ZnO films grown by single source CVD on Si(100)
 Surf. Rev. Lett., vol. 4, 39-44
 (1997)
172. F. Bender, R. Dahint, M. Grunze, F. Josse, A.J. Ricco, S.J. Martin
Investigation of high-sensitivity acoustic plate mode biosensors
 Electrochem. Society Proceedings, Vol. 97-19, 165-169
 (1997)
173. F. Morhard, J. Schumacher, A. Lenenbach, T. Wilhelm, R. Dahint, M. Grunze, D.S. Everhart
Optical diffraction - a new concept for rapid on-line detection of chemical and biochemical analytes
 Electrochem. Society Proceedings, Vol. 97-19, 1058-1065
 (1997)
174. B. Jäger, H. Schürmann, H.U. Müller, H.-J. Himmel, M. Neumann, M. Grunze, Ch. Wöll
X-ray and low energy electron induced damage in alkanethiolate monolayers on Au-substrates
 Physikal. Chemie, Vol. 202, Part I/II, 263-272
 (1997)
175. H.J. Kreuzer, S.H. Payne, M. Grunze, Ch. Wöll
Adsorption and desorption of N₂ on Ni(110): Entropy versus energy
 Physikal. Chemie, Vol. 202, Part I/II, 273-296
 (1997)

176. H. Wegner, K. Weiss, M. Grunze, Ch. Wöll
Determination of molecular orientation in ultrathin liquid crystal films on solid substrates using X-ray absorption spectroscopy
Appl. Physics A, Mater. Sci. Process., 65(3), 231-234
(1997)
177. H.-J. Himmel, K. Weiss, B. Jäger, O. Dannenberger, M. Grunze, Ch. Wöll
Ultrahigh vacuum study on the reactivity of organic surfaces terminated by -OH and -COOH groups prepared by self-assembly of functionalized alkanethiols on Au substrates
Langmuir 13(19), 4943-4947
(1997)
178. A. Welle, J.D. Liao, K. Kaiser, M. Grunze, U. Mäder, N. Blank‘
Interactions of N,N'-dimethylaminoethanol with steel surfaces in alkaline and chlorine containing solutions
Appl. Surface Science 119, 185-198
(1997)
179. K. Edinger, M. Grunze, Ch. Wöll
Corrosion of gold by alkane thiols
Ber. Bunsenges. 12(97), 1811-1815
(1997)
180. F. Morhard, J. Schumacher, A. Lenenbach, R. Dahint, M. Grunze, D.S. Everhart
Optical diffraction – a new concept for rapid on-line detection of chemical and biochemical analytes
Electrochemical Society Proc. 97-19, 10581065
(1997)
181. C. David, D. Kayser, H.U. Müller, B. Völkel, M. Grunze
A new method for the manufacture of large area condenser zone plates with small outermost zone widths
in: X-Ray Microscopy and Spectromicroscopy, eds. J. Thieme, G. Schmal, E. Umbach and D. Rudolf, Springer Verlag Heidelberg,
(1997)
182. R.L.C. Wang, H.J. Kreuzer, M. Grunze
Molecular conformation and solvation of oligo(ethylene glycol) terminated self-assembled monolayers and their resistance to protein adsorption
J. Phys. Chem. B, Vol 101(47), 9767-9773
(1997)
183. M.H. Koch, A.J. Hartmann, R.N. Lamb, M. Neuber, M. Grunze
Self-texture in the initial stages of ZnO film-growth
J. Phys. Chem.B 101(41), 8231-8236
(1997)

184. B. Völkel, A. Götzhäuser, H.U. Müller, C. David, M. Grunze
Influence of secondary electrons in proximal probe lithography
J. Vac. Sci. Technol. B 15(6), 2877-2881
(1997)
185. R. Ros Seigel, P. Harder, R. Dahint, M. Grunze, F. Josse, M. Mrksich, G.M. Whitesides
On-Line Detection of Nonspecific Protein Adsorption at Artificial Surfaces
Anal. Chem. 69, 3321-3328
(1997)
186. R. Hild, C. David, H.U. Müller, B. Völkel, D.R. Kayser, M. Grunze
Formation and characterization of self-assembled monolayers of octadecyltrimethoxysilane on chromium: application in low energy electron lithography
Langmuir 14 (2), 342-346
(1998)
187. M. Zharnikov, M. Neuber, M. Grunze
Photoelectron diffraction imaging of microcrystallites on the surface of a Ni polycrystal
Surf. Rev. Lett., 5(2), 501-513
(1998)
188. A. Welle, M. Grunze, D. Tur
Plasma protein adsorption and platelet adhesion on poly[bis(trifluoroethoxy)phosphazene] and reference material surfaces
J. Colloid Interf. Sci. 197, 263-274
(1998)
189. P. Harder, M. Grunze, R. Dahint, G.M. Whitesides, P.E. Laibinis
Molecular conformation in oligo(ethylene glycol) terminated self-assembled monolayers on gold and silver surfaces determines their ability to resist protein adsorption
J. Phys. Chem. B 102 (2), 426-436
(1998)
190. Ch. Jung, O. Dannenberger, Yue Xu, M. Buck, M. Grunze
Self-assembled monolayers from organosulfur compounds: A comparison between sulfides, disulfides and thiols'
Langmuir 14, 1103-1107
(1998)
191. M. Himmelhaus, I. Gauss, M. Buck, F. Eisert, Ch. Wöll, M. Grunze
Adsorption of docosanethiol from solution on polycrystalline silver surfaces: an XPS and NEXAFS study
Proceedings FSRS '97, J. El. Spec. Rel. Phen. 92, 139-149
(1998)

192. R. Henda, M. Grunze, A.J. Pertsin
Static Energy Calculations of Stress-Strain Behavior of Self-Assembled Monolayers
 Tribology Lett. 5, 191-195
 (1998)
193. A. Götzhäuser, B. Völkel, B. Jäger, M. Zharnikov, H.J. Kreuzer, M. Grunze
Holographic Imaging of Macromolecules
 J.Vac.Sci.Technol A, 16(5), 3025-3028
 (1998)
194. J.H. Thywissen, K.S. Johnson, N.H. Dekker, M. Prentiss, S.S. Wong, K. Weiss, M. Grunze
Metastable-atom-activated growth of an ultra-thin carbonaceous resist for reactive ion etching of SiO₂ and Si₃N₄
 J.Vac.Sci.Technol.B, 16(3), 1155-1160
 (1998)
195. A.J. Pertsin, M. Grunze, I.A. Garbuzova
Low energy configurations of methoxy tri(ethylene glycol) terminated alkanethiol self assembled monolayers and their relevance to protein adsorption
 J. Phys. Chem B, 102(25), 4918-4926
 (1998)
196. R. Kohring, M. Buck, F. Eisert, M. Grunze, J. Vogelsang
Electrochemistry of steel electrodes: a combined study by linear reflectivity measurements and second harmonic generation
 Ber. Bunsenges. Phys. Chemie, 102, 1393-1400
 (1998)
197. M. Grunze, A. Welle, D. Tur
Blood compatibility of poly[bis(trifluoroethoxy) phosphazene]
 Soc. Plast. Eng. Ann. Tech. Conf., 44, 2713-2717
 (1998)
198. H.U. Müller, M. Zharnikov, B. Völkel, A. Schertel, P. Harder, M. Grunze
Low energy electron-induced damage in hexadecanethiolate monolayers
 J. Phys. Chem. B, 102(41), 7949-7959
 (1998)
199. J. Thome, M. Himmelhaus, M. Zharnikov, M. Grunze
Increased lateral density in alkanethiolate films on gold by mercury adsorption
 Langmuir, 14(26), 7435-7449
 (1998)
200. F. Morhard, R. Dahint, M. Grunze
In situ detection of cells and biochemical reactions by optical diffraction
 Micro Total Analysis Systems '98, Proceedings of the μ Tas '98 Workshop, edited by D. J. Harrison and A. van den Berg, Kluwer Academic Publishers, Dordrecht, 1998, 469-472.
 (1998)

201. M. Zharnikov, M. Neuber, M. Grunze
Novel contrast mechanisms in photoelectron microscopy
J. El. Spec. Rel. Phen. 98-99, 25-40
(1999)
202. M. Himmelhaus, M. Buck, M. Grunze
Mercury induced reorientation of alkanethiolates adsorbed on gold
Appl. Phys.B 68, 595-59.
(1999)
203. M. Neuber, M. Zharnikov, J. Walz, M. Grunze
The adsorption geometry of benzoic acid on Ni(110)
Surf. Rev. Lett., Vol. 6(1), 53-75
(1999)
204. C. Yan, A. Götzhäuser, M. Grunze, Ch. Wöll
Formation of Alkanethiolate Self-Assembled Monolayers on Oxidized Gold Surfaces
Langmuir, 15, 2414-2419
(1999)
205. I. Böhm, A. Lampert, M. Buck, F. Eisert, M. Grunze
A spectroscopic study of thiol layers prepared by contact printing
Appl. Surface Science 141, 237-243
(1999)
206. J. Schumacher, M. Ranft, T. Wilhelm, R. Dahint, M. Grunze
Chemical analysis based on environmentally sensitive hydrogels and optical diffraction
Micro Total Analysis Systems '98, Proceedings of the μ Tas '98 Workshop, edited by D. J. Harrison and A. van den Berg, Kluwer Academic Publishers, Dordrecht, 1998, 61-64.
(1998)
207. O. Dannenberger, M. Buck, M. Grunze
Self-assembly of n-alkanethiols: a kinetic study by second harmonic generation
J. Phys. Chem. B, 103(12), 2202-2213
(1999)
208. M. Grunze
Driven Liquids
Science (Perspective) 293, 41
(1999)
209. M. Zharnikov, W. Geyer, A. Götzhäuser, S. Frey, M. Grunze
Modification of alkanethiolate monolayers on Au-substrates by low energy electron irradiation: Alkyl chains and the S-Au interface
Phys.Chem.Chem.Phys., 1, 3163 – 3171
(1999)

210. K. Heister, D.L. Allara, K. Bahnck, S. Frey, M. Zharnikov, M. Grunze
Deviations from 1:1 compositions in self-assembled monolayers formed from asymmetric dialkyl disulfides on gold
Langmuir 15, 5440-5443
(1999)
211. K. Feldman, G. Hähner, N.D. Spencer, P. Harder, M. Grunze
Probing resistance to protein adsorption of oligo(ethylene glycol)-terminated self-assembled monolayers by scanning force microscopy
J.Am.Chem.Soc., Vol. 121, Nr. 43, 10134-10141
(1999)
212. M. Himmelhaus, F. Eisert, M. Buck, M. Grunze
Self-assembly of n-alkanethiol monolayers: a study by IR-vis sum frequency spectroscopy (SFG)
J. Phys. Chem. B, 104(3), 576-584
(1999)
213. W. Geyer, V. Stadler, W. Eck, M. Zharnikov, A. Gölzhäuser, M. Grunze
Electron induced crosslinking of aromatic self-assembled monolayers: negative resists for nanolithography
Appl. Phys. Lett., Vol 75(16), 2401-2403
(1999)
214. H.J. Kreuzer, R.L.C. Wang, M. Grunze
Effect of stretching on the molecular conformation of oligo (ethylene oxide): a theoretical study
New Journal of Physics 1, 1.1 – 1.16
(1999)
215. F. Morhard, J. Pipper, R. Dahint, M. Grunze
Immobilization of antibodies in micropatterns for cell detection by optical diffraction
Sensors and Actuators B 70, 232-242
(2000)
216. A.J. Pertsin, H.J. Kreuzer, M. Grunze, R.L.C. Wang
The Effect of Electrostatic Fields on an Oligo(Ethylene Glycol) Terminated Alkanethiol Self Assembled Monolayer
Phys.Chem.Chem.Phys., 2, 1729-1733
(2000)
217. R.L.C. Wang, H.J. Kreuzer, M. Grunze, A.J. Pertsin
The effect of electrostatic fields on an oligo(ethylene glycol) molecule: dipole moments, polarizabilities and field dissociation
Phys.Chem.Chem.Phys., 2, 1721-1727
(2000)

218. M. Sundermann, J. Hartwich, K. Rott, E. Majkova, U. Kleineberg, M. Grunze, U. Heinzmann
Nanopatterning of Au absorber films on MO/Si EUV multilayer mirrors by STM lithography in Self-Assembled Monolayers
 Surface Science 454-456, 1104-1109
 (2000)
219. M. Zharnikov, S. Frey, K. Heister, M. Grunze
Modification of alkanethiolate monolayers by low energy electron irradiation: Dependence on the substrate material and on the length and isotopic composition of the alkyl chains
 Langmuir 16 (6), 2697-2705
 (2000)
220. F. Eisert, M. Gurka, A. Legant, M. Buck, M. Grunze
Detection of Molecular Alignment in Confined Films
 Science, Vol 287, 468-470
 (2000)
221. P. Harder, M. Grunze, J.H. Waite
Interaction of the Adhesive Protein Mefp-1 and Fibrinogen with Methyl and Oligo(ethylene glycol)-terminated Self assembled Monolayers
 J. Adhesion, 73, 161-177
 (2000)
222. W. Eck, A. Götzhäuser, V. Stadler, W. Geyer, M. Zharnikov, M. Grunze
Generation of surface amino groups on aromatic self-assembled monolayers by low energy electron beams – A first step towards chemical lithography
 Adv.Mater.12, No. 11, 805-808
 (2000)
223. M. Grunze, A. Pertsin
Molecular Conformations in Organic Monolayers Affect Their Ability to Resist Protein Adsorption
 Chemistry at the Beginning of the Third Millenium, Eds.: L. Fabbriizzi, A. Poggi, Springer Verlag Berlin Heidelberg
 (2000)
224. S Frey, K. Heister, M. Zharnikov, M. Grunze, K. Tamada, R. Colorado Jr., M. Graupe, O.E. Shmakova, T.R. Lee
Structure of self-assembled monolayers of semifluorinated alkanethiols on gold and silver substrates
 Isr. J. Chem.Vol 40, 81-97
 (2000)
225. S. Frey, K. Heister, M. Zharnikov, M. Grunze,
Modification of semifluorinated alkenethiolate monolayers by low energy electron irradiation
 Phys.Chem.Chem.Phys., 2, 1979-1987
 (2000)

226. M. Zharnikov, S. Frey, H. Rong, Y.-J. Yang, K. Heister, M. Buck, M. Grunze
The effect of the sulfur-metal bonding on the structure of self-assembled monolayers
Phys.Chem.Chem.Phys., 2, 3359-3362
(2000)
227. C. Yan, M. Zharnikov, A. Götzhäuser, M. Grunze
Preparation and Characterization of Self-Assembled Monolayers on Indium Tin Oxide
Langmuir 16, 6208-6215
(2000)
228. M. Zolk, F. Eisert, J. Pipper, S. Herrwerth, W. Eck, M. Buck, M. Grunze
Solvation of oligo(ethylene glycol) terminated self assembled monolayers studies by vibrational sum frequency spectroscopy
Langmuir 16, 5849-5852
(2000)
229. A.J. Pertsin, M. Grunze
Computer Simulation of Water near the Surface of Oligo(Ethylene Glycol) Terminated Alkanethiol Self-Assembled Monolayers
Langmuir, 16, 8829-8841
(2000)
230. R.L.C. Wang, H.J. Kreuzer, M. Grunze
The interaction of oligo(ethylene oxide) with water: a quantum mechanical study
Phys.Chem.Chem.Phys., 2, 3613-3622
(2000)
231. A. Welle, M. Grunze, D. Tur
Blood Compatibility of Poly[bis(trifluoroethoxy)phosphazene]
JAMP, Vol 4, No. 1, 6-10
(2000)
232. A. Götzhäuser, W. Geyer, V. Stadler, W. Eck, M. Grunze
Nanoscale patterning of self-assembled monolayers with electrons
J.Vac.Sci.Technol. B 18(6), 3414-3418
(2000)
233. F. Buckel, F. Effenberger, C. Yan, A. Götzhäuser, M. Grunze
Influence of Aromatic Groups Incorporated in Long-Chain Alkanethiol Self-Assembled Monolayers on Gold
Adv. Mater. 12, No. 12, 901-905
(2000)
234. H.J. Kreuzer, M. Grunze
Stretching of single polymer strands: a first principles theory
Europhysics Letters, 55 (5), 640-646
(2001)

235. K.-H. Ernst, M. Neuber, M. Grunze, U. Ellerbeck
NEXAFS Study on the Orientation of Chiral P-Heptahelicene on Ni(100)
J. Am. Chem. Soc. 123, 493-495
(2001)
236. K. Heister, M. Zharnikov, M. Grunze
Characterization of X-ray induced damage in alkanethiolate monolayers by high resolution photoelectron spectroscopy
Langmuir 17, 8-11
(2001)
237. S. Frey, V. Stadler, K. Heister, W. Eck, M. Zharnikov, M. Grunze, B. Zeysing, A. Terfort
Structure of thioaromatic self-assembled monolayers on gold and silver
Langmuir 17, 2408-2415
(2001)
238. K. Heister, M. Zharnikov, M. Grunze, L.S.O. Johansson
Adsorption of alkanethiols and biphenylthiols on Au and Ag substrates: A high resolution X ray photoelectron spectroscopy study
J. Phys. Chem. B, 105, 4058-4061
(2001)
239. K. Heister, H.-T. Rong, M. Buck, M. Zharnikov, M. Grunze, L.S.O. Johansson
Odd-even effects at the S-metal interface and in the aromatic matrix in biphenyl-substituted alkanethiol self-assembled monolayers
J. Phys. Chem. B, 105, 6888-6894
(2001)
240. A. Pertsin, T. Hayashi, M. Grunze
The interaction of oligo(ethylene glycol) with water: testing an atomic force field for transferability
Phys.Chem.Chem.Phys. 3, 1598-1601
(2001)
241. A. Götzhäuser, W. Eck, W. Geyer, V. Stadler, Th. Weimann, P. Hinze, M. Grunze
Chemical Nanolithography with Electron Beams
Advanced Materials, 13, No. 11 June 5, 806-809
(2001)
242. K.V.P.M. Shafi, A. Ulman, X. Yan, N.-L. Yang, M. Himmelhaus, M. Grunze
Sonochemical Preparation of Silane-Coated Titania Particles
Langmuir, 17, 1726-1730
(2001)
243. D. Schwendel, R. Dahint, S. Herrwerth, M. Schlörholz, W. Eck, M. Grunze
Temperature dependence of the protein resistance of poly- and oligo(ethylene glycol) terminated alkanethiolate monolayers
Langmuir 17, 5717-5720,
(2001)

244. M. Zharnikov, M. Grunze
Spectroscopic characterization of thiol-derived self-assembling monolayers
Journal of Physics: Condensed Matter 13, 11333-11365
(2001)
245. W. Geyer, V. Stadler, W. Eck, A. Götzhäuser, M. Grunze, M. Sauer, T. Weimann, P. Hinze
Electron induced chemical nonolithography with self-assembled monolayers
J. Vac. Sci. Techn. B., 19, 2732-2735
(2001)
246. Y.-T. Long, S. Herrwerth, W. Eck, M. Grunze
Synthesis and characterization of self-assembled monolayers based on redox-active silane compounds on platinum surfaces
Phys.Chem.Chem.Phys., Vol. 4, No. 3, 522-526
(2002)
247. J.-D. Liao, P.-J. Wang, C.-C. Weng, R. Klauser, S. Frey, M. Zharnikov, M. Grunze
Modification of alkanethiolate self-assembled monolayers by free radical-dominant plasma
J.Phys.Chem. B, 106, 77-84
(2002)
248. A. Götzhäuser, B. Völkel, M. Grunze, H.J. Kreuzer
Optimization of the low energy electron point source microscope: Imaging of macromolecules
Micron, 33 241-255
(2002)
249. M. Zharnikov, M. Grunze
Modification of thiol-derived self-assembling monolayers by electron and X-ray irradiation:
Scientific and lithographic aspects
J. Vac. Sci. Techn. B, 20(5), 1793-1807
(2002)
250. A. Pertsin, T. Hayashi, M. Grunze
Grand Canonical Monte Carlo Simulations of Hydration Interaction between Oligo(Ethylene Glycol) Terminated Alkanethiol Self-Assembled Monolayers
J. Phys. Chem. B, 106, 12274-12281
(2002)
251. T. Hayashi, A. J. Pertsin, and M. Grunze
Grand canonical Monte Carlo simulation of hydration forces between non-orienting and orienting structureless walls
J. of Chem. Phys., 117 (13), 6271-6280
(2002)

252. S. Tokumitsu, A. Liebich, S. Herrwerth, W. Eck, M. Himmelhaus, M. Grunze
Grafting of Alkanethiol-terminated Poly(ethylene glycol) on Gold
 Langmuir 18, 8862-8870
 (2002)
253. M. Zharnikov, S. Frey, K. Heister, M. Grunze
An extension of the mean free path approach to X-ray absorption spectroscopy
 Journal of Electron Spectroscopy and Related Phenomena 124, 15-24
 (2002)
254. U. Schmelmer, R. Jordan, W. Geyer, W. Eck, A. Götzhäuser, M. Grunze, A. Ulman
Surface-Initiated Polymerization on Self-Assembled Monolayers: Amplification of Patterns on the Micrometer and Nanometer Scale
 Angewandte Chemie, Int. Ed. 2003, 42, No. 5, 559-563
 (2003)
255. E.C. Walter, B. Murray, F. Favier, G. Kaltenpoth, M. Grunze, R.M. Penner
Noble and Coinage Metal Nanowires by Electrochemical Step Edge Decoration
 J. Phys. Chem. B., Vol. 106, No. 44, 11407-11411
 (2002)
256. Y.-T. Long, H.-T. Rong, M. Buck, M. Grunze
Odd-even effects in the cyclic voltammetry of self-assembled monolayers of biphenyl based thiols
 Journal of Electroanalytical Chemistry 524-525, 62-67
 (2002)
257. T.L. Brower, J.C. Garno, A. Ulman, G. Liu, Ch. Yan, A. Götzhäuser, M. Grunze
Self-Assembled Multilayers of 4,4'-Dimercaptobiphenyl Formed by Cu(II)-Catalyzed Oxidation
 Langmuir 2002, 18, 6207-6216
 (2002)
258. M. Zharnikov, A. Götzhauser, and M. Grunze, R. Klauser, J.-D. Liao
Control Over Surface Properties Through Modification of Monomolecular Films
 SRRC Activity Report 2002, 30-33
 (2002)
259. M. Wang, J.-D. Liao, Ch. Weng, R. Klauser, St. Frey, M. Zharnikov, M. Grunze
The Effect of the Substrate on Response of Thioaromatic Self-Assembled Monolayers to Free Radical-Dominant Plasma
 J. Phys. Chem. B 2002, 106, 6220-6226
 (2002)
260. E.C. Walter, B.J. Murray, F. Favier, G. Kaltenpoth, M. Grunze, R.M. Penner
Noble and Coinage Metal Nanowires by Electrochemical Step Edge Decoration
 Journal of Physical Chemistry B, Vol 106, No. 44, November 7, 2002, 11407-11411
 (2002)

261. K. Adlkofer, W. Eck, M. Grunze, M. Tanaka
Surface Engineering of Gallium Arsenide with 4-Mercaptobiphenyl Monolayers
J. Phys. Chem. B, 2003, 107, 587-591
(2003)
262. K. Heister, L.S.O. Johansson, M. Grunze, M. Zharnikov
A detailed analysis of the C 1s photoemission of n-alkanethiolate films on noble metal substrates
Surface Science 529 (2003), 36-46
(2003)
263. D. Schwendel, T. Hayashi, R. Steitz, F. Schreiber, R. Dahint, A.J. Pertsin, M.Grunze
Interaction of Water with Self Assembled Monolayers: Neutron Reflectivity Measurements of the Water Density in the Interface Region
Langmuir, Vol 19, No.6, 2284-2293,
(2003)
264. A.J. Pertsin, M. Grunze
Long ranged solvation forces in a fluid with short ranged interactions
J. Chem. Phys., Vol. 118, No. 17, 8004-8009
(2003)
A.J. Pertsin, M. Grunze
Erratum: Long ranged solvation forces in a fluid with short ranged interactions
J. Chem. Phys., Vol. 118, 8004, 9322
(2003)
265. S. Herrwerth, T. Rosendahl, C. Feng, J. Fick, W. Eck, M. Himmelhaus, R. Dahint, M. Grunze
Covalent Coupling of Antibodies to Self-Assembled Monolayers of Carboxy-Functionalized Poly(ethyleneglycol): Protein Resistance and Specific Binding of Biomolecules
Langmuir Vol. 19, No. 5, 1880-1887
(2003)
266. G. Kaltenpoth, M. Himmelhaus, L. Slansky, F. Caruso, M. Grunze
Conductive Core-Shell Particles: An Approach to Self-Assembled Mesoscopic Wires
Advanced Materials, 15, 1113-1118
(2003)
267. T.P. O'Brien, C. J. Bult, C. Cremer, M. Grunze, B. Knowles, J. Langowski, J. McNally, T. Pederson, J.C. Politz, A. Pombo, G. Schmahl, J.P. Spatz, R. van Driel
Genome Function and Nuclear Architecture: From Gene Expression to Nanoscience
Genome Research 13, 1029-1041
(2003)

268. S. Herrwerth, W. Eck, S. Reinhardt, M. Grunze
Factors that determine the protein resistance of oligoether self-assembled monolayers - internal hydrophilicity, terminal hydrophilicity and lateral packing density
J. Am. Chem. Soc., 125(31); 9359-9366.
(2003)
269. Y.M. Chan, R. Schweiss, C. Werner, M. Grunze
Electrokinetic characterization of oligo- and poly(ethylene glycol)-terminated self-assembled monolayers on gold and glass surfaces
Langmuir, 19(18); 7380-7385.
(2003)
270. H.J. Kreuzer, R.L.C. Wang, M. Grunze
Hydroxide ion adsorption on self assembled monolayers
J. Am. Chem. Soc., 125(27); 8384-8389
(2003)
271. M.-C. Wang, J.-D. Liao, C.-C. Weng, R. Klauser, A. Shaporenko, M. Grunze, M. Zharnikov
Modification of Aliphatic Monomolecular Films by Free Radical Dominant Plasma: The Effect of the Alkyl Chain Length and the Substrate
Langmuir, 19, 9774-9780
(2003)
272. G. Tzvetkov, Y. Zubavichus, G. Koller, Th. Schmidt, C. Heske, E. Umbach, M. Grunze, M.G. Ramsey, F. P. Netzer
Growth of H₂O layers on an ultra-thin Al₂O₃ film: from monomeric species to ice
Surface Science 543, 131-140
(2003)
273. K. Adlkofer, A. Shaporenko, M. Zharnikov, M. Grunze, A. Ulman, M. Tanaka
Chemical Engineering of Gallium Arsenide Surfaces with 4'-Methyl-4-Mercaptobiphenyl and 4'-Hydroxy-4-Mercaptobiphenyl Monolayers
J. Phys. Chem. B, 107, 11737-11741
(2003)
274. M. Zwahlen, S. Herrwerth, W. Eck, M. Grunze, G. Hähner
Conformational Order in Oligo(ethylene Glycol)-Terminated Self-Assembled Monolayers on Gold Determined by Soft X-Ray Absorption
Langmuir, 19, 9305-9310
(2003)
275. G. Kaltenpoth, P. Schnabel, E. Menke, E.C. Walter, M. Grunze, R.M. Penner
Multi-Mode Detection of Hydrogen Gas Using Palladium-Covered Silicon μ -Channels
Anal. Chem., 75, 4756-4765
(2003)

276. M. Himmelhaus, T. Bastuck, S. Tokumitsu, M. Grunze, L. Livadaru, H. J. Kreuzer
Growth of a dense Polymer brush layer from solution
Europhysics Letters, Vol. 64, Number 3, 378-384
(2003)
277. Y. Zubavichus, M. Zharnikov, A. Schaporenko, M. Grunze
NEXAFS study of glycine and glycine-based oligopeptides
J. of Electron Spectroscopy, 134, 25-33
(2004)
278. Y. Zubavichus, Y. Yang, M. Zharnikov, O. Fuchs, Th. Schmidt, C. Heske, E. Umbach, G. Tzvetkov, F.P. Netzer, M. Grunze
Local structure of amorphous ice as revealed by O K-edge EXAFS
ChemPhysChem, 5, 509-514
(2004)
279. S. M. Luber, K. Adlkofer, U. Rant, A. Ulman, M. Grunze, D. Schuh, M. Tanaka, M. Tornow, G. Abstreiter
Liquid phase sensors based on chemically functionalized GaAs/AlGaAs heterostructures
Physica E: Low-dimensional Systems and Nanostructures, Volume 21, Issues 2-4 ,
March 2004, 1111-1115
(2004)
280. K. Heister, S. Frey, A. Ulman, M. Grunze, M. Zharnikov
Irridiation Sensitivity of Self-Assembled Monolayers with an Introduced "Weak Link"
Langmuir, 20, 1222-1227
(2004)
281. A. Pertsin, M. Grunze
Water-Graphite Interaction and the Behavior of Water near Graphite Surface
J. Phys. Chem. B, 108, 1357-1364
(2004)
282. Ursula Schmelmer, Anne Paul, Alexander Küller, Rainer Jordan, Armin Gölzhäuser, Michael Grunze, Abraham Ulman
Surface-Initiated Polymerization on Self-Assembled Monolayers: Effect of Reaction Conditions
Macromol. Symp., 217, 223-230
(2004)
283. A. Shaporenko, M. Brunnbauer, A. Terfort, M. Grunze, M. Zharnikov
Structural forces in self-assembled monolayers: Terphenyl-substituted alkanethiols on noble metal substrates
J. Phys. Chem. B, 108, 14462-14469
(2004)

284. Y. Tai, A. Shaporenko, W. Eck, M. Grunze, and M. Zharnikov
Depth distribution of irradiation-induced cross-linking in aromatic self-assembled monolayers
Langmuir, 20, 7166-7170
(2004)
285. Y. Tai, A. Shaporenko, H.-T. Rong, M. Buck, W. Eck, M. Grunze, M. Zharnikov
Fabrication of thiol-terminated surfaces using aromatic self-assembled monolayers
J. Phys. Chem. B 2004, 108, 16806-16810
(2004)
286. J. Fick, R. Steitz, V. Leiner, S. Tokumitsu, M. Himmelhaus, M. Grunze
Swelling Behavior of Self-Assembled Monolayers of Alkanethiol-Terminated Poly(ethylene glycol): A Neutron Reflectometry Study
Langmuir, 20, 3848-3853
(2004)
287. Y. Zubavichus, O. Fuchs, L. Weinhardt, C. Heske, E. Umbach, J.D. Denlinger, M. Grunze
Soft X-Ray-Induced Decomposition of Amino Acids: An XPS, Mass Spectrometry, and NEXAFS Study
Radiation Research 161, 346-358
(2004)
288. Y. Zubavichus, M. Zharnikov, A. Shaporenko, O. Fuchs, L. Weinhardt, C. Heske, E. Umbach, J.D. Denlinger, M. Grunze
Soft X-ray induced decomposition of phenylalanine and tyrosine: a comparative study
J. Phys. Chem. A, 108, 4557-4565
(2004)
289. Y. Zubavicus, M. Grunze
New Insights into the Structure of Water with Ultrafast Probes
Science, Vol. 304, 974-976
(2004)
290. A. Pertsin, M. Grunze
Computer Simulation of Water in Asymmetric Slit-Like Nanopores
J. Phys. Chem. B, 108, 16533-16539
(2004)
291. Andrew W. Doyle, Joerg Fick, Michael Himmelhaus, Wolfgang Eck, Irene Graziani, Igor Prudovsky, Michael Grunze, Thomas Maciag, David J. Neivandt
Protein Deformation of Lipid Hybrid Bilayer Membranes studied by Sum Frequency Generation Vibrational Spectroscopy (SFS)
Langmuir, 20, 8961-8965
(2004)

292. A. Shaporenko, K. Adlkofer, L. S. O. Johansson, A. Ulman, M. Grunze, M. Tanaka, M. Zharnikov
Spectroscopic characterization of 4'-substituted aromatic self-assembled monolayers on GaAs (100) surface
J. Phys. Chem. B 108, 17964-17972
(2004)
293. G. Tzvetkov, G. Koller, Y. Zubavichus, O. Fuchs, M. B. Casu, C. Heske, E. Umbach, M. Grunze, M., G. Ramsey, F. P. Netzer
Bonding and structure of glycine on ordered Al₂O₃ film surfaces
Langmuir, 20, 10551-10559
(2004)
294. Yu-Chang Tyan, Jiunn-Der Liao, Shiang-Bin Jong, Pao-Chi Liao, Ming-Hui Yang, Yin-Wei Chang, Ruth Klauser, Michael Himmelhaus, Michael Grunze
Proteomic profiling of platelet proteins by trypsin immobilized self-assembled monolayers digestion chip and protein identification using electrospray ionization tandem mass spectrometry
Journal of biomedical materials research, 71A(1), 90
(2004)
295. Chih-Chiang Weng, Jiunn-Der Liao, Yi-Te Wu, Ming-Chen Wang, Ruth Klauser, Michael Grunze, Michael Zharnikov
Modification of Aliphatic Self-Assembled Monolayers by Free-Radical-Dominant Plasma: The Role of the Plasma Composition
Langmuir 20, 10093-10099
(2004)
296. S.M. Lubera, K. Adlkofer, U. Ranta, A. Ulman, A. Götzhäuser, M. Grunze, D. Schuh, M. Tanaka, M. Tornowa, G. Abstreiter
Liquid phase sensors based on chemically functionalized GaAs/AlGaAs heterostructures
Physica, E 21 (2004) 1111–1115
(2004)
297. Y. Tai, A. Shaporenko, W. Eck, M. Grunze, M. Zharnikov
Abrupt change in the structure of self-assembled monolayers upon metal evaporation
Applied Physics Letters, Vol. 85, Nr. 25, 6257-6259
(2004)
298. Y. Zubavichus, M. Zharnikov, Y. Yang, O. Fuchs, E. Umbach, C. Heske, A. Ulman, M. Grunze
X-ray Photoelectron Spectroscopy and Near-Edge X-ray Absorption Fine Structure Study of Water Adsorption on Pyridine-Terminated Thiolate Self-Assembled Monolayers
Langmuir, 20, 11022-11029
(2004)

299. George M. Whitesides, Xingyu Jiang, Emanuele Ostuni, Robert G. Chapman, M. Grunze
SAMS and biofunctional surfaces. The "inert surface" problem.
Polymer Preprints (American Chemical Society, Division of Polymer Chemistry),
45(1), 90-91
(2004)
300. Y. Zubavichus, M. Zharnikov, Y.-J. Yang, O. Fuchs, C. Heske, E. Umbach, G. Tzvetkov, Falko P. Netzer, M. Grunze
Surface Chemistry of Ultrathin Films of Histidine on Gold As Probed by High-Resolution
Surface Photoemission
Synchrotron Photoemission
J. Phys. Chem. B 109, 884-891
(2005)
301. A. Shaporenko, M. Brunnbauer, A. Terfort, L. S. O. Johansson, M. Grunze, M. Zharnikov
Odd-even effects in photoemission from terphenyl-substituted alkanethiolate self-assembled monolayers
Langmuir, 21, 4370-4375
(2005)
302. A. Shaporenko, K. Heister, A. Ulman, M. Grunze, M. Zharnikov
The effect of halogen substitution in self-assembled monolayers of 4-mercaptopbiphenyls on noble metal substrates
Journal of Physical Chemistry B, 109(9), 4096-4103
(2005)
303. W. Eck, A. Küller, M. Grunze, B. Völkel, A. Götzhäuser
Freestanding nanosheets from crosslinked biphenyl self-assembled monolayers
Advanced Materials, 17, 2583–2587
(2005)
304. R.Y. Wang, M. Himmelhaus, J. Fick, S. Herrwerth, W. Eck, M. Grunze
Interaction of self-assembled monolayers of oligo(ethylene glycol)-terminated alkanethiols with water studied by vibrational sumfrequency generation (VSFG)
Journal of Chemical Physics, 122, 164702-6
(2005)
305. Y. Tai, A. Shaporenko, H. Noda, M. Grunze, M. Zharnikov
Fabrication of a stable metal film on the surface of self-assembled monolayers
Advanced Materials, 17, 1745-1749
(2005)

306. Yu-chang Tyan, Jiunn-Der Liao, Shiang-Bin Jong, Pao-Chi Liao, Ming-Hui Yang, Yin-Wei Chang, Ruth Klauser, Michael Himmelhaus, Michael Grunze
Characterization of trypsin immobilized on the functionable alkylthiolate self-assembled monolayers: A preliminary application for trypsin digestion chip on protein identification using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry.
Journal of Materials Science: Materials in Medicine, 16(2), 135-142
(2005)
307. A. Pertsin, D. Platonov, M. Grunze
Direct computer simulation of water-mediated force between supported phospholipid membranes
Journal of Chemical Physics, 122, 244708
(2005)
308. Hiroyuki Noda, Yian Tai, Andrei Shaporenko, Michael Grunze, Michael Zharnikov
Electrochemical Characterizations of Nickel Deposition on Aromatic Dithiol Monolayers on Gold Electrodes
J. Phys. Chem. B, 109, 22371-22376
(2005)
309. M. Odelius, H. Ogasawara, D. Nordlund, O. Fuchs, L. Weinhardt, F. Maier, E. Umbach, C. Heske, Y. Zubavichus, M. Grunze, J. D. Denlinger, L.G.M. Pettersson, A. Nilsson
Ultra-fast Core Hole Induced Dynamics in Water probed by X-ray Emission Spectroscopy
Physical Review Letters, 94(22), 227401/1-227401/4
(2005)
310. S. Balamurugan, Linnea K. Ista, Juchao Yan, Gabriel P. López, M. Himmelhaus, J. Fick, M. Grunze
Reversible Protein Adsorption and Bioadhesion on Monolayers Terminated with Mixtures of Oligo(ethylene glycol) and Methyl Groups
Journal of the American Chemical Society, 127(42), 14548-9
(2005)
311. Y. Tai, A. Shaporenko, M. Grunze, M. Zharnikov
The effect of irradiation dose in making an insulator from a self-assembled monolayer
J. Phys. Chem. B, 109, 19411-19415
(2005)
312. Yan Zubavichus, Andrey Shaporenko, Michael Grunze, Michael Zharnikov
Innershell Absorption Spectroscopy of Amino Acids at All Relevant Absorption Edges
J. Phys. Chem. A, 109, 6998-7000
(2005)

313. Goetz M. Richter, Ulrike Stampfl, Sibylle Stampfl, Christoph Rehnitz, Susann Holler, Philip Schnabel, Michael Grunze
A New Polymer Concept for Coating of Vascular Stents Using PTFEP (poly(bis(trifluoroethoxy)phosphazene) to Reduce Thrombogenicity and Late In-Stent Stenosis
Investigative Radiology, Vol. 40, Nr. 4, 210-218
(2005)
314. Yu-Chang Tyan, Shiang-Bin Jong, Jiunn-Der Liao, Pao-Chi Liao, Ming-Hui Yang, Chia-Yuan Liu, Ruth Klausner, Michael Himmelhaus, Michael Grunze
Proteomic profiling of erythrocyte proteins by proteolytic digestion chip and identification using two-dimensional electrospray ionization tandem mass spectrometry.
Journal of Proteome Research, (2005), 4(3), 748-757
(2005)
315. M. Zharnikov, A. Shaporenko, H. Noda, M. Grunze
Integration of self-assembled monolayers in a multilayer assembly.
Abstracts of Papers, 230th ACS National Meeting, Washington, DC, United States, Aug. 28-Sept. 1
(2005)
316. M. Maccarini, M. Himmelhaus, S. Stoycheva, M. Grunze
Characterisation and stability of hydrophobic surfaces in water
Applied Surface Science, 252, 1941–1946
(2005)
317. M. Schmidt, U. Schade, M. Grunze
Microspectroscopic observation of vibrational linear dichroism using polarization-modulated infrared synchrotron radiation
Infrared Physics & Technology, 49, 69-73
(2006)
318. A. Shaporenko, A. Terfort, M. Grunze, M. Zharnikov
A detailed analysis of the photoemission spectra of basic thioaromatic monolayers on noble metal substrates
Journal of Electron Spectroscopy and Related Phenomena 151, 45–51
(2006)
319. M. G. Anderson, Tamás Haraszti, Greg E. Petersen, Sue Wirick, Chris Jacobson, Simon W.M. John, Michael Grunze
Scanning transmission X-ray microscopic analysis of purified melanosomes of the mouse iris
Micron, 37(8), 689-698
(2006)
320. Y. Zubavichus, A. Shaporenko, M. Grunze, M. Zharnikov
Solid-State Near-Edge X-ray Absorption Fine Structure Spectra of Glycine in Various Charge States
J. Phys. Chem. B, 110, 3420-3427
(2006)

321. Qiang He, Ying Tian, A. Küller, M. Grunze, A. Götzhäuser, Junbai Li
Self-Assembled Molecular Pattern by Chemical Lithography and Interfacial Chemical Reactions
Journal of Nanoscience and Nanotechnology, 6 (6), 1838-1841
(2006)
322. Sv. Stoycheva, M. Himmelhaus, J. Fick, A. Kornviakov, M. Grunze, A. Ulman
Spectroscopic Characterization of Omega-Substituted Biphenylthiolates on Gold and Their Use as Substrates for “On-Top” Siloxane SAM Formation
Langmuir, 22-9, 4170-4178
(2006)
323. Alexander Pertsin, Dmitry Platonov, Michael Grunze
Computer simulation of short-range repulsion between supported phospholipid membranes
Biointerphases, 1(1), 40-49,
(2006)
324. A. Pertsin, M. Grunze
Water as a lubricant for graphite: a computer simulation study
Journal of Chemical Physics, 125, 114707
(2006)
325. Yan Zubavichus, Michael Zharnikov, Yong-Jie Yang, Oliver Fuchs, Eberhard Umbach, Clemens Heske, Michael Grunze
Oxygen K-edge XAFS studies of vacuum-deposited ice films
Langmuir, 22, 7241-7247
(2006)
326. U. Schmelmer, A. Paul, A. Küller, M. Steenackers, A. Ulman, M. Grunze, A. Götzhäuser, R. Jordan
Nanostructured Polymer Brushes
Small (2007), 3(3), 459-465
(2007)
327. Alexander Pertsin, Dmitry Platonov, Michael Grunze
The Origin of Short-Range Repulsion between Hydrated Phospholipid Bilayers: A Computer Simulation Study
Langmuir, 23(3), 1388-1393
(2007)
328. Martin Schmidt, Notburga Gierlinger, Ulrich Schade, Tilmann Rogge, Michael Grunze
Polarized Vibrational Spectroscopy of Single Spruce Fibres: Observing Hydrogen Bonding and Oriented Structures in Wood Polymers
Biopolymers; Vol. 83, 546-555
(2006)

329. M. Maccarini, R. Steitz, M. Himmelhaus, J. Fick, S. Tatur, M. Wolff, M. Grunze, J. Janecek, R.R. Netz
Density depletion at solid-liquid interfaces: a neutron reflectivity study
Langmuir, 23(2), 598-608
(2007)
330. R. L. C. Wang, H. J. Kreuzer and M. Grunze
Theoretical modeling and interpretation of X-ray absorption spectra of liquid water
Phys. Chem. Chem. Phys., 8, 4744–4751
(2006)
331. Qiang He, Alexander Küller, Michael Grunze, Junbai Li
Fabrication of Thermosensitive Polymer Nanopatterns through Chemical Lithography and Atom Transfer Radical Polymerization
Langmuir 23, 3981-3987
(2007)
332. M. Schmidt, T. Wolfram, M. Rumpler, C.P. Tripp, M. Grunze
Live cell adhesion assay with attenuated total reflection infrared spectroscopy
Biointerphases, 2(1), 1-5
(2007)
333. D. Gassull, S. Lubert, A. Ulman, M. Grunze, M. Tornow, G. Abstreiter, M. Tanaka
pH Sensitivity of Gallium Arsenide (GaAs) Electrodes Functionalized with Methyl-mercaptobiphenyl Monolayers.
Journal of Physical Chemistry C, 111(33), 12414-12419
(2007)
334. A. Rosenhahn, R. Barth, X. Cao, M. Schürmann, M. Grunze, S. Eisebitt
Vacuum-ultraviolet Gabor holography with synchrotron radiation
Ultramicroscopy, 107(12), 1171-1177
(2007)
335. Qiang He, A. Kueller, S. Schilp, F. Leisten, H.-A. Kolb, M. Grunze, J. Li
Fabrication of Controlled Thermosensitive Polymer Nanopatterns with One-step Polymerization through Chemical Lithography
SMALL 3, 1860
(2007)
336. S. Schilp, A. Kueller, A. Rosenhahn, M. Grunze, M. Pettitt, M.E. Callow, J.A. Callow
Settlement and Adhesion of Algal Cells to Hexa(ethylene glycol)-Containing Self-Assembled Monolayers with Systematically Changed Wetting Properties
Biointerphases 2(4), 1934-8630
(2007)
337. M. Steenackers, A. Küller, N. Ballav, M. Zharnikov, M. Grunze, R. Jordan
Morphology Control of Structured Polymer Brushes
SMALL, 2007, 3, No. 10, 1764 – 1773
(2007)

338. Y. Zubavichus, A. Shaporenko, M. Grunze, M. Zharnikov
NEXAFS spectroscopy of homopolypeptides at all relevant absorption edges: polyisoleucine, polytyrosine, and polyhistidine
Journal of Physical Chemistry B, 2007, 111, 9803-9807
(2007)
Erratum:
Yan Zubavichus, Andrey Shaporenko, Michael Grunze, and Michael Zharnikov
11866 J. Phys. Chem. B, Vol. 111, No. 40,
(2007)
339. Alexander Pertsin, Michael Grunze
Temperature dependence of the short-range repulsion between hydrated phospholipid membranes: A computer simulation study
Biointerphases, 2(3), 105-108
(2007)
340. T. Weidner, K. Rössler, P. Ecorchard, H. Lang, M. Grunze, M. Zharnikov
Self-Assembled Monolayers of Ruthenocene-Substituted Biphenyl Ethynyl Thiols on Gold
Journal of Electroanalytical Chemistry 621, 159–170
(2008))
341. S. Satzl, C. Henn, P. Christoph, P. Kurz, U. Stampfl, S. Stampfl, F. Thomas, B. Radeleff, I. Berger, M. Grunze Goetz M. Richter
The Efficacy of Nanoscale Poly[bis(trifluoroethoxy) phosphazene] (PTFEP) Coatings in Reducing Thrombogenicity and Late In-Stent Stenosis in a Porcine Coronary Artery Model.
Investigative Radiology, 42(5), 303-311
(2007)
342. Yu-Chang Tyan, Ming-Hui Yang, Pao-Chi Liao, Jiunn-Der Liao, Shiang-Bin Jong, Chia-Yuan Liu, Ming-Chen Wang, Michael Grunze
MALDI-TOF MS sample preparation by using alkanethiolate self-assembled monolayers: A preliminary application for protein sample analysis.
International Journal of Mass Spectrometry, 262(1-2), 67-72
(2007)
343. M. Heydt, A. Rosenhahn, M. Grunze, M. Pettitt, M.E. Callow, J.A. Callow
Digital In-Line Holography as a Three-Dimensional Tool to Study Motile Marine Organisms During Their Exploration of Surfaces.
Journal of Adhesion (2007), 83(5), 417-430
(2007)
344. O. Fuchs, F. Maier, L. Weinhardt, M. Weigand, M. Blum, M. Zharnikov, J. Denlinger, M. Grunze, C. Heske and E. Umbach
A liquid flow cell to study the electronic structure of liquids with soft x-rays
Journal of Nuclear Instruments and Methods A, 585, 172–177
(2008)

345. O. Fuchs, M. Zharnikov, L. Weinhardt, M. Blum, M. Weigand, Y. Zubavichus, M. Bär, F. Maier, J. D. Denlinger, C. Heske, M. Grunze, and E. Umbach
Isotope and Temperature Effects in Liquid Water Probed by X-Ray Absorption and Resonant X-Ray Emission Spectroscopy
Physical Review Letters, PRL 100, 027801
(2008)
346. F. Zeifang, M. Grunze, G. Delling, H. Lorenz, C. Heisel, G. Tosounidis, D. Sabo, H.-G. Simank, J. H. Holstein
Improved osseointegration of PTFEP-coated titanium implants
Med Sci Monit, 14(2), BR35-40,
(2008)
347. Y. Zubavichus, A. Shaporenko, M. Grunze, M. Zharnikov
Is X-ray absorption spectroscopy sensitive to the amino acid composition of functional proteins?
The Journal of Physical Chemistry B Letters,
Published on Web 03/22/2008
(2008)
348. D. Gassull, A. Ulman, M. Grunze, M. Tanaka
Electrochemical Sensing of Membrane Potential and Enzyme Function Using Gallium Arsenide Electrodes Functionalized with Supported Membranes
The Journal of Physical Chemistry B, 112, 5736-5741
(2008)
349. M. Schmidt, J. S. Lee, M. Grunze, K. H. Kim, U. Schade
Anisotropy Studied by Polarization-Modulated Fourier Transform Infrared Reflection Difference Microspectroscopy
Applied Spectroscopy, Vol. 62, 2,
(2008)
350. A. Rosenhahn, R. Barth, F. Staier, T. Simpson, S. Mittler, S. Eisebitt, M. Grunze
Digital in-line soft x-ray holography with element contrast
Optical Society of America, A/Vol. 25, No. 2
(2008)
351. Y. Zubavichus, A. Shaporenko, V. Korolkov, M. Grunze, M. Zharnikov
X-ray absorption spectroscopy of the nucleotide bases at the carbon, nitrogen, and oxygen K-edges
J. Phys. Chem. B, 112, 13711–13716
(2008)
352. J. Fu, J. Ji, L. Shen, A. Küller, A. Rosenhahn, J. Shen, M. Grunze
pH Amplified Exponential Growth Multilayers: A Facile Method to Develop Hierarchical Micro- and Nanostructured Surfaces
Langmuir, 25, 2, 672-675
(2009)

353. A. Pertsin, M. Grunze
Quasistatic Computer Simulation Study of the Shear Behavior of Bi- and Trilayer Water Films Confined between Model Hydrophilic Surfaces
 Langmuir, 24, 4750-4755
 (2008)
354. A. Pertsin, M. Grunze
A Computer Simulation Study of Stick-Slip Transitions in Water Films Confined between Model Hydrophilic Surfaces. 1. Monolayer Films
 Langmuir, 24, 135-141
 (2008)
355. C. Gutt, L.-M. Stadler, S. Streit-Nierobisch, A.P. Mancuso, A. Schropp, B. Pfau, C.M. Günther, R. Könecke, J. Gulden, B. Reime, J. Feldhaus, E. Weckert, I.A. Vartanians, O. Hellwig, F. Staier, R. Barth, M. Grunze, A. Rosenhahn, D. Stickler, H. Stillrich, R. Frömter, H.P. Oepen, M. Martins, T. Nisius, T. Wilhein, B. Faatz, N. Guerassimova, K. Honkavaara, V. Kocharyan, R. Treusch, E. Saldin, S. Schreiber, E.A. Schneidmiller, M.V. Yurkov, S. Eisebitt, G. Grübel
Resonant magnetic scattering with soft x-ray pulses from a free electron laser at 1.59 nm
 Physical Review B 79, 212406
 und Virtual Journal of Ultrafast Science
 (2009)
356. L. Weinhardt, O. Fuchs, M. Blum, M. Bär, M. Weigand, J.D. Denlinger, Y. Zubavichus, M. Zharnikov, M. Grunze, C. Heske, E. Umbach
Resonant x-ray emission spectroscopy of liquid water: novel instrumentation, high resolution, and the “map” approach
 Journal Electron Spectroscopy and Related Phenomena
 (2009)
357. O. Fuchs, M. Zharnikov, L. Weinhardt, M. Blum, M. Weigand, Y. Zubavichus, M. Bär, F. Maier, J. D. Denlinger, C. Heske, M. Grunze, E. Umbach
Reply to a comment by Petterson et al on “Isotope and Temperature Effects in Liquid Water Probed by X-ray Absorption and Resonant X-ray Emission Spectroscopy
 Physical Review Letters 100, 24
 (2008)
358. M.Grunze
Commentary: Patterns from molecular corrals
 Nature, 454, 585-586
 (2008)
359. M. Grunze, I. Fedyanin, A. Pertsin
Mechanism of short-range interfacial repulsion between hydrated phosphatidylcholine bilayers: Comparison with phosphatidylethanolamine
 Surface Science, 603, 1937–1944
 (2009)

360. M. Schmidt, A. Cavaco, N. Gierlinger, N. Aldred, P. Fratzl, M. Grunze, A. S. Clare
In situ imaging of barnacle (*Balanus amphitrite*) cyprid cement using confocal Raman microscopy
 The Journal of Adhesion, 85,139–151
 (2009)
361. M. Steenackers, A. Küller, S. Stoycheva, M. Grunze, R. Jordan
Structured and Gradient Polymer Brushes from Biphenylthiol Self-assembled Monolayers by Self-Initiated Photografting and Photopolymerization (SIPGP)
 Langmuir, Article ASAP, DOI: 10.1021/la803386c
 (2009)
362. C. Howell, M.-O. Diesner, M. Grunze, P. Koelsch
Probing the Extracellular Matrix with Sum-Frequency-Generation Spectroscopy
 Langmuir, 24 (24), 13819-13821
 (2008)
363. F. Höök, B. Kasemo, M. Grunze, S. Zauscher
Quantitative Biological Surface Science: Challenges and Recent Advances
 ACS Nano, Vol. 2, No. 12
 (2008)
364. X. Cao, M.E. Pettit, S.L. Conlan, W. Wagner, A.D. Ho, A.S. Clare, J.A. Callow, M.E. Callow, M. Grunze, A. Rosenhahn
Resistance of polysaccharide coatings to proteins, hematopoietic cells and marine organisms
 Biomacromolecules, 10, 907–915
 (2009)
365. T. Weidner, N. Ballav, M. Grunze, A. Terfort, M. Zharnikov
Modification of biphenylselenolate monolayers by low-energy electrons
 Phys. Status Solidi B, 246, 7, 1519–1528
 (2009)
366. A.P. Mancuso, A. Schropp, B. Reime, L.-M. Stadler, A. Singer, J. Gulden, S. Streit-Nierobisch, C. Gutt, G. Grbel, J. Feldhaus, F. Staier, R. Barth, A. Rosenhahn, M. Grunze, T. Nisius, T. Wilhein, D. Stickler, H. Stillrich, R. Frmter, H.P. Oepen, M. Martins, B. Pfau, C.M. Gnther, R. Knecke, S. Eisebitt, B. Faatz, N. Guerassimova, K. Honkavaara, V. Kocharyan, R. Treusch, E. Saldin, S. Schreiber, E.A. Schneidmiller, M.V. Yurkov, E. Weckert, I.A. Vartanyants
Coherent-Pulse 2D Crystallography Using a Free-Electron Laser X-Ray Source
 Physical Review Letters 102, 035502
 (2009)
367. W. Eck, M. Grunze
Chemical Nanolithography
 Bunsen-Magazin, 11. Jahrgang 1/2009
 (2009)

368. M. Steenackers, R. Jordan, A. Küller, M. Grunze
Engineered Polymer Brushes by Carbon Templating
Adv. Materials, 21, 1–5
(2009)
369. M. Mueller, M. Grunze, E. H. Leiter, P. C. Reifsnnyder, U. Klueh, D. Kreutzer
Non-invasive glucose measurements in mice using mid-infrared emission spectroscopy
Sensors and Actuators B 142, 502–508
(2009)
370. E. Sondergard, R. Jribi, E. Barthel, M. Grunze, P. Kölsch, D. Verrault, H. Bluhm
Ultraviolet Irradiation Suppresses Adhesion on TiO₂
The Journal of Physical Chemistry C, 113, 8273–8277
(2009)
371. A. Rosenhahn, F. Staier, T. Nisius, D. Schäfer, R. Barth, C. Christophis, L.-M. Stadler, S. Streit-Nierobisch, C. Gutt, A. Mancuso, A. Schropp, J. Gulden, B. Reime, J. Feldhaus, E. Weckert, B. Pfau, C. M. Günther, R. Könnecke, S. Eisebitt, M. Martins, B. Faatz, N. Guerassimova, K. Honkavaara, R. Treusch, E. Saldin, S. Schreiber, E. A. Schneidmiller, M. V. Yurkov, I. Vartanyants, G. Grübel, M. Grunze, T. Wilhein
Digital In-line Holography with femtosecond VUV radiation provided by the free-electron laser FLASH
OPTICS EXPRESS 8220, 17, 10
(2009)
372. A. Rosenhahn, J. A. Finlay, M. E. Pettit, A. Ward, W. Wirges, R. Gerhard, M. E. Callow, M. Grunze, J. A. Callow
Zeta potential of motile spores of the green alga *Ulva linza* and the influence of electrostatic interactions on spore settlement and adhesion strength
Biointerphases 4, 1
(2009)
373. M. W. A. Skoda, F. Schreiber, R. M. J. Jacobs, J. R. P. Webster, M. Wolff, R. Dahint, D. Schwendel, M. Grunze
Protein Density Profile at the Interface of Water with Oligo(ethylene glycol) Self-Assembled Monolayers
Langmuir, 25, 4056-4064
(2009)
374. Y. Zubavichus, A. Shaporenko, M. Grunze, M. Zharnikov
NEXAFS spectroscopy of biological molecules: From amino acids to functional proteins
Nuclear Instruments and Methods in Physics Research, A 603 111–114
(2009)

375. M. Heydt, P. Divós, M. Grunze, A. Rosenhahn
Analysis of holographic microscopy data to quantitatively investigate three-dimensional settlement dynamics of algal zoospores in the vicinity of surfaces
Eur. Phys. J. E 29
(2009)
376. A.P. Mancuso, Th. Gorniak, F. Staier, O.M. Yefanov, R. Barth, C. Christophis, B. Reime, J. Gulden, A. Singer, M. E. Pettit, Th. Nisius, Th. Wilhein, C. Gutt, G. Grübel, N. Guerassimova, R. Treusch, J. Feldhaus, S. Eisebitt, E. Weckert, M. Grunze, A. Rosenhahn, I.A. Vartanyants
Coherent Imaging of Biological Samples with Femtosecond Pulses at the Free Electron Laser FLASH
New Journal of Physics 12, 035003
(2010)
377. I. Tunc, P. Koelsch, M. Bruns, H. Gliemann, M. Grunze
Bandgap determination and charge separation in Ag@TiO₂ core shell nanoparticle films
Surface and Interface Analysis
DOI 10.1002/sia.3558
(2010)
378. A. Pertsin, I. Fedyanin, M. Grunze
Computer simulation of water-mediated forces between gel-phase phospholipid bilayers
The Journal of Chemical Physics 131, 215102
(2009)
JPC Editors' Choice 2009
379. C. Gutt, S. Streit-Nierobisch, L.-M. Stadler, B. Pfau, C.M. Günther, R. Könnecke, R. Frömter, A. Kobs, D. Stickler, H. P. Oepen, R.R. Fäustlin, R. Treusch, J. Feldhaus, E. Weckert, I. A. Vartanyants, M. Grunze, A. Rosenhahn, T. Wilhein, S. Eisebitt, G. Grübel
Single-pulse resonant magnetic scattering using a soft x-ray free-electron laser
Physical Review B 81, 100401(R)
(2010)
380. V.Kurz, M. Grunze, P. Koelsch
In situ characterization of thermo responsive poly(N-isopropylacrylamide) films with sum-frequency generation spectroscopy
ChemPhysChem 0000, 00, 1 – 6
(DOI: 10.1002/cphc.200900978)
(2010)
381. S. Schilp, A. Rosenhahn, M. E. Pettitt, J. Bowen, M. E. Callow, J.A. Callow, M.Grunze
Physicochemical Properties of (Ethylene Glycol)-Containing Self-Assembled Monolayers Relevant for Protein and Algal Cell Resistance
Langmuir 25(17), 10077–10082
(2009)

382. T. Haraszti*, M. Grunze³, M. G. Anderson
STXMPy: a new software package for automated region of interest selection and statistical analysis of XANES data
Chemistry Central Journal, 4:11
(2010)
383. A. Rosenhahn, S. Schilp, J. Kreuzer, M. Grunze
The role of “inert” surface chemistry in marine biofouling prevention
Phys. Chem. Chem. Phys., 12, 4275–4286
(2010)
384. T. Haraszti; C.M. Trantow; A. Hedberg-Buenz; M. Grunze; M.G. Anderson
Spectral analysis by XANES reveals that GPNMB influences the chemical composition of intact Melanosomes
Pigment Cell Melanoma Res. 24; 187–196
(2010)
385. S. Weiße, M. Heydt, T. Maier, S. Schulz, J.P. Spatz, M. Grunze, T. Haraszti, A. Rosenhahn
Flow conditions in the vicinity of microstructured interfaces studied by holography and implications for the assembly of artificial actin networks
PCCP, 13, 13395-13402
2011)
386. A. Braun, U. Schönfeld, T. Welsch, M. Kadmon, B. Funke, D. Gotthardt, A. Zahn, F. Autschbach, P. Kienle, M. Zharnikov, M. Grunze, W. Stremmel, R. Ehehalt
Reduced hydrophobicity of the colonic mucosal surface in ulcerative colitis as a hint at a physicochemical barrier defect
International Journal of Colorectal Disease 26:989–998
(2011)
387. C. Christophis, M. Grunze, A. Rosenhahn
Quantification of the adhesion strength of fibroblast cells on ethylene glycol terminated self-assembled monolayers by a microfluidic shear force assay
Phys. Chem. Chem. Phys., 12, 4498–450
(2010)
388. R. Barth, F. Staier, T. Simpson, S. Mittler, S. Eisebitt, M. Grunz, A. Rosenhahn
Soft X-ray holographic microscopy of chromosomes with high aspect ratio pinholes
Journal of Biotechnology 149, 238–242
(2010)
389. X. Cao, M. E. Pettitt, F. Wode, M. P. Arpa-Sancet, J. Fu, J. Ji, M. E. Callow, J. A. Callow, A. Rosenhahn, M. Grunze
Interaction of Zoospores of the Green Alga Ulva with Bioinspired Micro- and Nanostructured Surfaces Prepared by Polyelectrolyte Layer-by-Layer Self-Assembly
Adv. Funct. Materials 20, 1–10
(2010)

390. A. Pertsin, M. Grunze
Nanotribology of Confined Water by Quasistatic Computer Simulations: Effect of Impurities
 Tribol Lett 40:167–173
 (2010)
391. K. Giewekemeyer, M. Beckers, T. Gorniak, M. Grunze, T. Salditt, and A. Rosenhahn
Ptychographic coherent x-ray diffractive imaging in the water window
 OPTICS EXPRESS, Vol. 19, No. 2, 1037-1050
 (2011)
392. M. Strobl, R. Steitz, M. Kreuzer, M. Rose, H. Herrlich, F. Mezei, M. Grunze, R. Dahint
BioRef - a versatile time-of-flight reflectometer for soft matter applications at Helmholtz-Zentrum Berlin
 Review of Scientific Instruments 82, 055101
 (2011)
393. R. Heine, T. Gorniak, T. Nisius, C. Christophis, M.E. Pettitt, F. Staier, T. Wilhein, S. Rehbein, M. Grunze, A. Rosenhahn
Digital in-line X-ray holography with zone plates
 Ultramicroscopy 111 (2011) 1131–1136
 (2011)
394. A. Pertsin, M. Grunze
Computer simulations of water-mediated force between phospholipid membranes
 Current Opinion in Colloid & Interface Science 16, 534–541
 (2011)
395. T. Gorniak, R. Heine, A. P. Mancuso, F. Staier, C. Christophis, M. E. Pettitt, A. Sakdinawat, R. Treusch, N. Guerassimova, J. Feldhaus, C. Gutt, G. Grübel, S. Eisebitt, A. Beyer, A. Götzhäuser, E. Weckert, M. Grunze, I. A. Vartanyants, A. Rosenhahn
X-ray holographic microscopy with zone plates applied to biological samples in the water window using 3rd harmonic radiation from the free-electron laser FLASH
 OPTICS EXPRESS, Vol. 19, No. 12, 11059- 11070
 (2011)
396. K. Timm, C. Myant, H.A. Spikes, M. Grunze
Particulate lubricants in cosmetic applications
 Tribology International, 44, 1695-1703
 (2011)
397. I. Fedyanin, A. Pertsin, M. Grunze
Quasistatic computer simulations of shear behavior of water nanoconfined between mica surfaces
 Journal of Chemical Physics 135, 174704
 (2011)

398. C. Christophis, K. Sekeroglu, G. Demirel, I. Thomé, M. Grunze, M. C. Demirel, A. Rosenhahn
Fibroblast adhesion on unidirectional polymeric nanofilms
 Biointerphases 6(4)
 (2011)
399. C. Christophis, I. Taubert, G.R. Meseck, M. Schubert, M. Grunze, A.D. Ho, A. Rosenhahn
Shear stress regulates adhesion and rolling of CD44 + leukemic and hematopoietic progenitor cells on hyaluronan
 Biophysical Journal, 101, 585-593
 (2011)
400. I. Thomé, M.E. Pettitt, M.E. Callow, J.A. Callow, M. Grunze, A. Rosenhahn
Conditioning of surfaces by macromolecules and its implication for the settlement of zoospores of the green alga *Ulva linza*
 Biofouling, 28, 5, 501-510
 (2012)
401. M. Heydt, M.E. Pettitt, X. Cao, M.E. Callow, J.A. Callow, M. Grunze, A. Rosenhahn
Settlement behavior of zoospores of *ulva linza* during surface selection studied by digital holographic microscopy
 Biointerphases 7:33
 (2012)
402. S. Weiße, N. Heddergott, M. Heydt, D. Pfästerer, T. Maier, T. Haraszti, M. Grunze, M. Engstler, A. Rosenhahn
A quantitative 3D motility analysis of *trypanosoma brucei* by use of digital in-line holographic microscopy
 PloS ONE, 7, 5, e37296
 (2012)
403. A. Pertsin, M. Grunze
Computer simulation of adhesion between hydrophilic and hydrophobic self-assembled monolayers in water
 Journal of Chemical Physics, 137, 054701
 (2012)
404. A. Pertsin, M. Grunze
Computer simulation of water –mediated adhesion between phospholipid bilayer and solid support functionalized with self-assembled monolayers
 Biointerphases 7:57
 (2012)
405. K. Timm, C. Myant, H. Nuguid, H.A. Spikes, M. Grunze
Investigation of friction and perceived skin feel after application of suspensions of various cosmetic powders
 Int. Journal for Cosmetic Science, 34, 458-465
 (2012)

406. S. Maleschlijski, G. H. Sendra, A. Di Fino, L. Leal-Taixé, I. Thome, A. Terfort, N. Aldred, M. Grunze, A. S. Clare, B. Rosenhahn, A. Rosenhahn
Three Dimensional Tracking of Exploratory Behavior of Barnacle Cyprids Using Stereoscopy
Biointerphases 7:50
(2012)
407. L. Xiao, S.E. M. Thompson, M. Röhrig, M.E. Callow, J.A. Callow, M. Grunze, A. Rosenhahn
Hot embossed microtopographic gradients reveal morphological cues that guide the settlement of zoospores
Langmuir, 29, 4, 1093-1099
(2013)
408. L. Xiao; J. Li, S. Mieszkin, A. Fino, A. Clare, M. Callow, J. Callow, M. Grunze, A. Rosenhahn, P. Levkin
Slippery Liquid-Infused Porous Surfaces Showing Marine Antibiofouling Properties
ACS Appl. Mater. Interfaces 5, 10074–10080
(2013)
409. M. Grunze
Out of the liquid-into the vacuum
Biointerphases 8:35
(2013)
410. S. Braune, M. Grunze, A. Straub, F. Jung
Are there sufficient standards for the in vitro hemocompatibility testing of biomaterials?
Biointerphases 8:33
(2013)
411. P. Wuchter, C. Leinweber, R. Saffrich, M. Hanke, V. Eckstein, A. D. Ho, M. Grunze, A. Rosenhahn
Plerixafor induces the rapid and transient release of stromal cell-derived factor-1 alpha from human mesenchymal stromal cells and influences the migration behavior of human hematopoietic progenitor cells
Cell Tissue Res
Published online: Dec 14, 2013
DOI 10.1007/s00441-013-1759-7
(2013)
412. A. Efremov, M. Grunze, P. Levkin
Digital Liquid Patterning: A Versatile Method for Maskless Generation of Liquid Patterns and Gradients
Adv. Mater. Interfaces, 1300075
(2014)

413. L. Li, J. Li, X. Du, A. Welle, M. Grunze, O. Trapp, P.A. Levkin
Direct UV-Induced Functionalization of Surface Hydroxy Groups by Thiol–OI Chemistry
 Angew. Chem. Int. Ed.; 53, 1 – 6
 (2014)
414. Y. Cheng, H. Suhonen, L. Helfen, J. Li, F. Xu, M. Grunze, P.A. Levkin, T. Baumbach
Direct three-dimensional imaging of polymer–water interfaces by nanoscale hard X-ray phase tomography
 Soft Matter, 10, 2982
 (2014)
415. T. Gorniak, T. Haraszti, V.M. Garamus, A.R. Buck, T. Senkbeil, M. Priebe, A. Hedberg-Buenz, D. Koehn, T. Salditt, M. Grunze, M.G. Anderson, A. Rosenhahn
Nano-Scale Morphology of Melanosomes Revealed by Small-Angle X-Ray Scattering
 PLOS ONE 9, 3, e90884
 (2014)
416. A. Pertsin, M. Grunze
Possible mechanism of adhesion in a mica supported phospholipid bilayer
 The Journal of Chemical Physics 140, 184707
 (2014)
417. M. Grunze
Out of the vacuum-into the liquid: the challenge to understand Bointerphases
 La gazette du Vide, 27, 12-15
 (2013)
418. X. Du, L. Li, J. Li, C. Yang, N. Frenkel, A. Welle, S. Heissler, A. Nefedov, M. Grunze, P.A. Levkin
UV-Triggered Dopamine Polymerization: Control of Polymerization, Surface Coating and Photo-Patterning
 Adv. Mater., 26, 8029–8033
 (2014)
419. I. Thome, S. Bauer, S. Vater, K. Zargiel, J.A. Finlay, M.P. Arpa-Sancet, M. Alles, J.A. Callow, M.E. Callow, G. Swain, M. Grunze, A. Rosenhahn
Conditioning of self-assembled monolayers at two static immersion test sites along the east coast of Florida and its effect on early fouling development
 Biofouling 30, 8, 1011–1021
 (2014)
420. T. Gorniak, T. Haraszti, H. Suhonen, Y. Yang, A. Hedberg-Buenz, D. Koehn, R. Heine, M. Grunze, A. Rosenhahn, M.G. Anderson
Support and challenges to the melanosomal casing model based on nanoscale distribution of metals within iris melanosomes detected by X-ray fluorescence analysis
 Pigment Cell Melanoma Res., 27; 831–834 and Supporting information S1
 (2014)

421. K. L. Cho, A. Rosenhahn, R. Thelen, M. Grunze, M. Lobban, M. L. Karahka, H. J. Kreuzer
Shear-induced detachment of polystyrene beads from SAM-coated surfaces
Langmuir, 31, 11105–11112
(2015)
422. S. Maleshlijski, G.H. Sendra, N. Aldred, A.S. Clare, B. Liedberg, M. Grunze, T. Ederth, A. Rosenhahn
Imaging SPR combined with stereoscopic 3D tracking to study barnacle cyprid–surface interactions
Surface Science, 643, 172-177
(2016)
423. J. S. Li, L. X. Li, X. Du, W. Q. Feng, A. Welle, O. Trapp, M. Grunze, M. Hirtz, P. A. Levkin
Reactive Superhydrophobic Surface and Its Photoinduced Disulfideene and Thiol-ene (Bio)functionalization
Nano Letters, 15, 1, 675-681
(2015)
424. S. M. Vater, J. Finlay, M. E. Callow, J. A. Callow, T. Ederth, B. Liedberg, M. Grunze, A. Rosenhahn
Holographic microscopy provides new insights into the settlement of zoospores of the green alga *Ulva linza* on cationic oligopeptide surfaces
Biofouling, 31, 2, 229-239
(2015)
425. M. Grunze
Physical Chemistry of non-fouling oligo (ethylene oxide) terminated Self Assembled Monolayers
Handbook of Biofunctional Surfaces, ed. Wolfgang Knoll, p.59
2012 Francis and Taylor, CRC Press
(2016)
426. J. Li, B. Kwiatkowska, H. Lu, M. Voglstätter, E. Ueda, M. Grunze, J. Sleeman, P.A. Levkin, I. Nazarenko
Collaborative Action of Surface Chemistry and Topography in the Regulation of Mesenchymal and Epithelial Markers and the Shape of Cancer Cells
ACS Appl. Mater. Interfaces, 8, 28554–28565
(2016)
427. L. Xiao, J.A. Finlay, M. Röhrig, S. Mieszkin, M. Worgull, H. Hölscher, J.A. Callow, M.E. Callow, M. Grunze, A. Rosenhahn
Topographic cues guide the attachment of diatom cells and algal zoospores
Biofouling, 34, 1, 86-97
(2018)

Book Publications Michael Grunze

1. M. Grunze, H.J. Kreuzer, editors
"Kinetics of Interface Reactions"
Springer Series in Surface Science, Vol. 8,
Springer, Heidelberg (1987)
2. M. Grunze, H.J. Kreuzer, J.J. Weimer, editors
"Diffusion at Interfaces Microscopic Concepts"
Springer Series in Surface Sciences, Vol. 12
(Springer, Berlin, 1988)
3. M. Grunze, H.J. Kreuzer, editors
"Adhesion and Friction"
Springer Series in Surface Sciences, Vol. 17
(Springer, Berlin, 1989)
4. W.N. Unertl, M. Grunze, editors
"Proceedings of a Workshop on the Physical and Chemical Mechanisms of Tribology"
in Langmuir 18 (19), 1996