

Martin Müller
Publications before 2000

Refereed Papers

1. A. Blume, W. Hübner, M. Müller and H.D. Bäuerle, Structure and Dynamics of Lipid Model Membranes: FT-IR- and ^2H -NMR-Spectroscopic Studies, *Ber. Bunsenges. Phys. Chem.*, 92, 964-973 (1988)
2. R. Buchet, M. Müller, U.P. Fringeli, Two dimensional infrared spectroscopy (2D IR) on hydrated poly(L-lysine films), *Biophysical Journal*, 66 (2, Part 2), A373 (1994)
3. H.H. Bauer, M. Müller, J. Goette, H.P. Merkle and U.P. Fringeli, Adsorption and Aggregation Associated Secondary Structure Changes of Human Calcitonin Monitored by ATR-FTIR Spectroscopy, *Biochemistry*, 33, 12276-12282 (1994)

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4. M. Müller, C. Werner, K. Grundke, K.-J. Eichhorn and H. J. Jacobasch, Thermodynamic and spectroscopic characterization of the adsorption of plasma proteins onto cellulosic substrates, *Macromol. Symp.*, 103, 55-72 (1996)
5. M. Müller, R. Buchet and U.P. Fringeli, 2D-FTIR ATR Spectroscopy of Thermo-Induced Periodic Secondary Structural Changes of Poly-(L)-Lysine: A Cross Correlation Analysis of Phase Resolved Temperature Modulation Spectra, *J. Phys. Chem.*, 100 (25), 10810-25 (1996)

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6. M. Müller, C. Werner, K. Grundke, K.-J. Eichhorn and H.J. Jacobasch, ATR-FTIR Spectroscopy on Plasma Protein Adsorbed onto Cellulose Films, *Microchim. Acta*, 14, 671-674 (1997)
7. M. Müller and F.J. Schmitt, Quantitative ATR-FTIR-Spectroscopy at Polymer Surfaces: Sorption and Conformation, *Macromol. Symp.* 119, 269 (1997)
8. V.N. Vasilets, G. Hermel, U. König, C. Werner, M. Müller, F. Simon, K. Grundke, Y. Ikada and H.-J. Jacobasch, Microwave CO_2 plasma initiated vapour phase graft polymerization of acrylic acid onto polytetrafluoroethylene for immobilization of human thrombomodulin, *Biomaterials*, 18(17), 1139-1145 (1997)
9. C. Sperling, U. König, V.N. Vasilets, G. Hermel, C. Werner, M. Müller, F. Simon, K. Grundke, Y. Ikada and H.-J. Jacobasch, *Journal of Materials Science: Materials in Medicine*, 8(12), 789-793 (1997)
10. U. König, A. Augsburg, F. Simon, D. Lunkwitz, G. Hermel, C. Werner, M. Müller, H.-J. Jacobasch, *Polymer Preprints*, 38 (1), 1079-1080 (1997)
11. F.J. Schmitt and M. Müller, ATR-FTIR-Spectroscopy on Highly Oriented Polyglutamates, *Thin Solid Films*, 310/1-2, 138-147 (1997)

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12. M. Müller, T. Rieser, K. Lunkwitz, S. Berwald, J. Meier-Haack, D. Jehnichen, An in-situ ATR-FTIR-Study on Polyelectrolyte Multilayer Assemblies on Solid Surfaces and Their Susceptibility to Fouling, *Macromol. Rapid Commun.*, 19 (7), 333 (1998)
13. M. Müller, I. Grosse, H.-J. Jacobasch, P. Sams, Surfactant Adsorption and Water Desorption at Thin Cellulose Films Monitored by In-Situ-ATR-FTIR-Spectroscopy, *Tenside Surfactants Detergents*, 35 (5), 354-359 (1998)
14. R. Buchhold, A. Nakladal, K. Sager, G. Gerlach, K. Sahre, K. J. Eichhorn, M. Müller, Reduction of Stress in Micromachined Components Caused by Humidity-Induced Volume Expansion of Polymer Layers, *Microsystem Technologies*, 5, 3-12 (1998)

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15. R. Buchhold, A. Nakladal, G. Gerlach, K. Sahre, M. Müller, K.-J. Eichhorn, M. Herold, G. Gauglitz, A Study on the Microphysical Mechanisms of Adsorption in Polyimide Layers for Microelectronic Applications, *J. Electrochem. Soc.*, 145, 11 (1998)
16. M. Köthe, M. Müller, F. Simon, H. Komber, H.-J. Jacobasch, H.-J. Adler, Poly(butadiene epoxide) Coatings at Inorganic Surfaces, *Colloids and Surfaces Part A: Physicochem. Eng. Aspects*, 154 (1-2), 75-85 (1999)
17. M. Müller, M. Briššová, T. Rieser, A.C. Powers and K. Lunkwitz, Deposition and Properties of Polyelectrolyte Multilayers Studied by ATR-FTIR Spectroscopy, *Materials Science & Engineering C*, 8-9, 167-173 (1999)
18. M. Müller, T. Rieser, K. Lunkwitz, J. Meier Haack, Polyelectrolyte complex layers: a promising concept for anti-fouling coatings verified by in-situ ATR-FTIR-spectroscopy, *Macromol. Rapid Commun*, 20 (12), 607-611 (1999)
19. U. Oertel, H.-M. Buchhammer, M. Müller, J. Nagel, H.-G. Braun, K.-J. Eichhorn, K. Sahre, Surface modification by polyelectrolytes: Studies on model systems, *Macromol. Symp.*, 145, 39-47 (1999)
20. M. Müller, T. Rieser, M. Köthe, M. Brissova and K. Lunkwitz, Deposition and Bioadhesion Properties of Polymer Multilayers: An in-situ-ATR-FTIR Study, *Macromol. Symp.*, 145, 149-159 (1999)

Diploma/Dissertation/Book Chapters

1. M. Müller, FT-IR-Dichroismusmessungen an orientierten Lipidfilmen mit der ATR-Methode, Diplomarbeit, Albert-Ludwig-Universität, Freiburg (1988)
2. M. Müller, Möglichkeiten und Grenzen der Infrarotspektroskopie bei der Sekundärstrukturaufklärung von Proteinen und Peptiden, *ETH Diss. No 10422*, Eidgenössische Technische Hochschule, Zürich (1993)
3. M. Müller, C. Werner, K. Grundke, H.J. Braun, K.J. Eichhorn, H.M. Buchhammer, U.P. Fringeli und H.J. Jacobasch, ATR-FTIR-Spektroskopie an oberflächenadsorbierten

Proteinen, in *‘Werkstoffe für die Medizintechnik’* (Ed. J. Breme), DGM-Informationsgesellschaft Verlag, Frankfurt (1997)

4. R. Buchhold, A. Nakladal, K. Sager, G. Gerlach, K. Sahre, M. Müller and K.-J. Eichhorn, Reduction of Stress in Micromachined Components Caused by Humidity-Induced Volume Expansion of Polymer Layers, in *‘Proceedings of the Conference and Exhibition Micro Materials (MICRO MAT ‘97)’* (ed. B. Michel and T. Winkler), Berlin, 16.-18. 4. 1997, S. 746-749
5. M. Müller, T. Rieser, M. Brissova, S. Berwald und K. Lunkwitz, Proteinresistente Oberflächen durch Polyelektrolyt-Multischichten, in *‘Werkstoffe für die Medizintechnik / Werkstoffwoche 98, Symposium 4’*, (Ed. H. Planck, H. Stallforth), WILEY-VCH, Weinheim, New York (1999)
6. T. Rieser, K. Lunkwitz, S. Berwald, J. Meier-Haack, M. Müller, F. Cassel, Z. Dioszeghy, F. Simon, Surface Modification of Microporous Polypropylene Membranes by Polyelectrolyte Multilayers, in *‘Membranes Formation and Modification’* / ed. Ingo Pinnau, ACS, Washington (1999) – Chapter 13 (ACS Symposium Series; 744)