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Zeitschriftenartikel, Buchbeiträge und Bücher

Fachge-
biet(e)*

- Bahrke, S., J.M. Einarsson, J. Gislason, S. Haebel, J. Peter-Katalinić, M.G. Peter
Characterization of Chitooligosaccharides by Mass Spectrometry.
Proceedings of the 5th EUCHIS02, pp. 3-10,
NTNU Trondheim, 2003. BC, ESI
- Berkenkamp, S., F. Hillenkamp, A. Loboda, D. van den Boom
Orthogonal Ion Extraction MALDI-TOF with a single -quadrupole:
Features and applications for DNA/RNA analysis.
Proceedings of the 51th ASMS Conference on Mass Spectrometry and
Allied Topics, Montreal, Canada, June 8-12, 2003, extended abstract
(A030082). LM, BC
- Böhm, M., K. Sawicka, J.P. Siebrasse, A. Brehmer-Fastnacht
R. Peters, K.-H. Klempnauer
The transformation suppressor protein Pcdc4 shuttles between nucleus
and cytoplasm and binds RNA.
Oncogene 22 (2003) 4905-4910. BP, ZB
- Bornemann, A., J. Bohl, H.-M. Schneider, H.H. Goebel, P.F. Schmidt,
R. Gherardi
62 year old female with intracellular PAS-positive deposits in the
deltoid muscle biopsy.
Brain Pathol., in press (published on line in July 2003). KM
- Bulau, P., I. Meisen, B. Reichwein-Roderburg, J. Peter-Katalinić,
R. Keller
Two genetic variants of the crustacean hyperglycemic hormone (CHH)
from the Australian crayfish, *Cherax destructor*: Detection of chiral
isoforms due to posttranslational modification.
Peptides 24 (2003) 1871-1879. BC, ESI
- Dreisewerd, K.
The Desorption Process in MALDI.
Chem. Rev., 103 (2003) 395-425 (invited review). LM

* Abkürzungsverzeichnis für Fachgebiete siehe letzte Seite

- Dreisewerd, K., S. Berkenkamp, A. Leisner, A. Rohlfing, C. Menzel
 Fundamentals of Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry with Pulsed Infrared Lasers.
 Int. J. Mass Spectrom., 226 (2003) 189-209 (invited paper). LM
- Du Chesne A, M. Unnewehr, P.F. Schmidt, P. Sotony, B. Brinkmann
 J. Piffkó, G. Fischer, T. Bajanowski
 Deformation characteristics of human mandible in low impact experiments.
 Int. J. Legal Med., in press. KM
- Froesch, M., A.D. Zamfir, J. Peter-Katalinić
 Mapping of O-glycosylated amino acids related to Schindler's Disease by negative ion NanoESI-FT ICR MS and SORI-CID at 9.4 T. Proceedings of the 51st ASMS Conference on Mass Spectrometry and Allied Topics,
 Montreal, Canada, June 8-13, 2003, extended abstract. BC,
 FT-ICR
- Froesch, M., L. Bindila, A. Zamfir, J. Peter- Katalinić
 Sialylation analysis of O-glycosylated sialylated peptides from urine of patients suffering from Schindler's disease by Fourier transform ion cyclotron resonance mass spectrometry and sustained off-resonance irradiation collision-induced dissociation.
 Rapid Comm. Mass Spectrom. 17 (2003) 2822-2832. FT-ICR,
 KM
- Grote, M., R. Valenta, R. Reichelt
 Abortive pollen germination: A mechanism of allergen release in birch, alder, and hazel revealed by immunogold electron microscopy.
 J. Allergy Clin. Immunol. 111(5) (2003) 1017-1023. AL, EM,
 KM
- Grote, M., R. Valenta, R. Reichelt
 Immunogold scanning electron microscopy of abortive pollen germination: How birch, hazel, and alder release allergic particles into the atmosphere.
 Microsc. Microanalysis 9 (Suppl. 3) (2003) 402-403. AL, EM,
 KM
- Hartmer, R., N. Storm, S. Boecker, C. P. Rodi, F. Hillenkamp,
 C. Jurinke, D. van den Boom
 Rnase T1 mediated base-specific cleavage and MALDI-TOF MS for high-throughput comparative sequence analysis.
 Nuc. Acids. Res. 31, (2003) No. 9 e47. LM, BC

- Horneffer, V., R. Reichelt, K. Strupat
Protein incorporation into MALDI-Matrix crystals investigated by high resolution field emission scanning electron microscopy. International Journal of Mass Spectrometry 226 (2003) 117-131. LM, EM, BP
- Kahl, B.C., G. Belling, R. Reichelt, M. Herrmann, R.A. Proctor, G. Peters
Thymidine dependent trimethoprim-sulfamethoxazole resistant small colony variants (SCV) of Staphylococcus aureus exhibit gross morphological and ultrastructural changes consistent with impaired cell separation. J. Clin. Microbiol. 41(1) (2003) 410-413. KM, EM, ZB
- Kiskin, N., J.P. Siebrasse, R. Peters
Optical micro-well assay of membrane transport kinetics. Biophys. J. 85 (2003) 2311-2322. BP, ZB
- König, S., F. Wagner, E. Kauschke, J. Peter-Katalinić, E. L. Cooper, I. Eue
Mass spectrometric analyses of CL₃₉, CL₄₁ and H₁, H₂, H₃ confirm identity with fetidin and lysenin produced by earthworm leukocytes. Develop. Comp. Immunol. 27 (2003) 513-520. BC, ESI
- Krzyzanek, V. and R. Reichelt
MASDET: A new MATLAB package for mass determination of matter using transmitted scattered electrons. Microsc. Microanalysis 9 (Suppl. 3) (2003) 112-113. EM, BP
- Krzyzanek, V. and R. Reichelt
MONCA: A new MATLAB package for monte carlo simulation of electron scattering in thin specimens in the energy range 10 - 200 keV. Microsc. Microanalysis 9 (Suppl. 3) (2003) 110-111. EM, BP
- Kuckling, D., J. Hoffmann, M. Plötner, D. Ferse, H.-J.P. Adler, K.-F. Arndt, R. Reichelt
Photo cross-linkable poly(N-isopropylacrylamide) copolymers III: micro-fabricated temperature responsive hydrogels. Polymer 44 (2003) 4455-4462. EM, NBT

- Kukreja, L. M., A. Rohlfig, P. Misra, F. Hillenkamp
K. Dreisewerd
Cluster formation in UV laser ablation plumes of ZnSe and ZnO
studied by time-of-flight mass spectrometry.
Appl. Phys. A, (2003) Electronic version: DOI: 10.1007/s00339-003-
2272-8. LM
- Künneken, K., G. Pohlentz, A. Schmidt-Hederich, U. Odenthal,
N. Smyth, J. Peter-Katalinić, P. Bruckner, J. Eble
Recombinant human laminin-5 domains: effects of heterotrimerization,
proteolytic processing and N-glycosylation on alpha3beta1 integrin
binding.
J. Biol. Chem., published ahead on Nov. 11, 2003, as Manuscript
M310424200, 279 (2004). BC, ESI
- Laffer, S., S. Hamdi, C. Lupinek, W. R. Sperr, P. Valent, P. Verdinos,
W. Keller, M. Grote, K. Hoffmann-Sommergruber, O. Scheiner,
D. Kraft, M. Rideau, R. Valenta
Molecular characterization of recombinant T1, a non-allergenic
periwinkle (*Catharanthus roseus*) protein, with sequence similarity to
the Bet v 1 plant allergen family.
Biochem. J. 373 (2003) 261-269. AL, EM,
KM
- Leitao, E.A., V.C.B. Bittencourt, R.M.T. Haido, A.P. Valente,
J. Peter-Katalinić, M. Letzel, E. Barreto-Bergter
 β -Galactofuranose-containing O-linked oligosaccharides present in
the cell wall peptidogalactomannan of *Aspergillus fumigatus* contain
immunodominant epitopes.
Glycobiology 13 (2003) 681-692. BC
- Lopez, Z.E., G. González, R. Reichelt
Effect of the Si/Al ratio on the size and morphology of the crystals of
zeolites MFI and MEL.
Microsc. Microanalysis 9 (Suppl. 3) (2003) 362-363. AFM, EM
- Marušić, A., A. Markotić, N. Kovačić, J. Müthing
Expression of glycosphingolipids in lymph nodes of mice lacking
TNF receptor 1: biochemical and flow cytometry analysis.
Carbohydr. Res., in press. BC, KM,
ZB

- Matis, M., M. Žakelj-Mavrič, J. Peter-Katalinić BC, ESI
 Use of mass spectrometry and data base search for identification of
 proteins from organisms with unsequenced genomes.
 Proceedings of the 51st ASMS Conference on Mass Spectrometry and
 Allied Topics,
 Montreal, Canada, June 8-13, 2003, extended abstract.
- Matzelle, T.R., H. Gnaegi, A. Ricker, R. Reichelt AFM, EM
 Characterization of the cutting edge of glass and diamond knives for
 ultramicrotomy by scanning force microscopy using cantilevers with a
 defined tip geometry. Part 2.
 J. Microsc. 209 (2003) 113-117.
- Matzelle, T.R., R. Reichelt, N. Kruse AFM, EM,
 NBT
 The influence of crosslinking density to the elastic properties of
 'smart' polymers: a scanning force and scanning electron microscopy
 study.
 Microsc. Microanalysis 9 (Suppl. 3) (2003) 460-461.
- Meisen, I., J. Peter-Katalinić, J. Müthing BC, ESI
 Direct analysis of silica gel extracts from immunostained
 glycosphingolipids by nanoESI Q-TOF mass spectrometry.
 Anal. Chem., in press.
- Meisen, I., J. Peter-Katalinić, J. Müthing BC, ESI
 Discrimination of neolacto-series gangliosides with α 2-3- and α 2-6-
 linked N-acetylneuraminic acid by nanoESI low-energy CID tandem
 QTOF MS.
 Anal. Chem., 75, (2003) 5719-5725.
- Mormann, M. and J. Peter-Katalinić FT-ICR
 Improvement of electron capture efficiency by resonant excitation.
 Rapid Commun. Mass Spectrom. 17 (2003), 2208-2214.
- Mormann, M., M.G. Peter, J. Peter-Katalinić BC,
 FT-ICR
 Improvement of electron capture dissociation efficiency by resonant
 excitation and its application to sequencing of modified peptides.
 Proceedings of the 51st ASMS Conference on Mass Spectrometry and
 Allied Topics,
 Montreal, Canada, June 8-13, 2003, extended abstract.

- Müthing, J., I. Meisen, P. Bulau, M. Langer, K. Witthohn, H. Lentzen, U. Neumann, J. Peter-Katalinić
Mistletoe lectin I is a sialic acid-specific lectin with strict preference to gangliosides and glycoproteins with terminal Neu5Aca2-6Galβ1-4GlcNAc-residues.
Biochemistry, in press. BC, ZB, ESI
- Müthing, J., S.E. Kemminer, H.S. Conradt, D. Šagi, M. Nimtz, U. Kärst, J. Peter-Katalinić
Effects of Buffering Conditions and Culture pH on Production Rates and Glycosylation of Clinical Phase I Antimelanoma Mouse IgG3 Monoclonal Antibody R24.
Biotechnol. Bioeng. 83 (2003) 321-334. BC, BT, ESI, KM
- Olivier, V., I. Meisen, B. Meckelein, T. R. Hirst, J. Peter-Katalinić, M.A. Schmidt, A. Frey
Influence of targeting ligand flexibility on receptor binding of particular drug delivery systems.
Bioconjugate Chem. 14 (2003) 1203-1208. BC, ESI
- Peters, R.
Nucleocytoplasmic transport measurements using isolated *Xenopus* oocyte nuclei.
In: Cell Biology Techniques (D. Rickwood, J. Graham and J.R. Harris, eds.) John Wiley & Sons, London, in press. BP, ZB
- Peters, R.
Optical single transporter recording: Transport kinetics in microarrays of membrane patches.
Annu. Rev. Biophys. Biomol. Struct. 32 (2003) 47-67. BP, ZB
- Peters, R.
Protein analysis through optical single transporter recording.
Laborwelt 5 (2003) 11-12. BP, ZB
- Peters, R.
Transport measurements in mircoarrays of nuclear envelope patches by optical single transporter recording.
In: Cell Biology Techniques (D. Rickwood, J. Graham and J.R. Harris, eds.) John Wiley & Sons, London, in press. BP, ZB

- Plate, U., Ch. Mentrup, D. Sommer, U. Joos, H.J. Höhling
Mineralization of defined inorganic Ca- and PO₄-solutions along
defined organic matrices.
Proceedings Microsc. Microanal. 9 (2003) 462-463. BC, EM,
NBT
- Pohlentz G. and J. Peter-Katalinić
Electrospray ionization collision-induced dissociation of Ag⁺-
containing molecular ions of oligosaccharides yields diagnostic ring
cleavages.
Proceedings of the 51st ASMS Conference on Mass Spectrometry and
Allied Topics,
Montreal, Canada, June 8-13, 2003, extended abstract. ESI, BC
- Rajčević, U., M. Matis, J. R. Lee, R. Komel, J. Peter-Katalinić
Identification of differentially expressed proteins in gastric
adenocarcinoma, from samples obtained by Laser Capture
Microdissection. BC, KM
Proceedings of the 51st ASMS Conference on Mass Spectrometry and
Allied Topics, Montreal, Canada, June 8-13, 2003, extended abstract.
- Reichelt, R.
Report on the 15th International Congress on Electron Microscopy
(ICEM-15). AFM, EM,
SSM, BP
G.I.T. Imaging & Microscopy 1 (2003) 8-10.
- Reichelt, R., T. Schmidt, D. Kuckling, K.-F. Arndt
Structural characterization of temperature-sensitive hydrogels by field
emission scanning electron microscopy (FESEM). EM, NBT
Macromolecular Symposia (2003), in press.
- Rolfing, A., C. Menzel, L. M. Kukreja, F. Hillenkamp,
K. Dreisewerd LM
Photoacoustic Analysis of Matrix-Assisted Laser
Desorption/Ionization Processes with Pulsed Infrared Lasers.
J. Phys. Chem. B, 107 (2003) 12275-12286.
- Rukosujew, A., R. Reichelt, A.M. Fabricius, G. Drees, T.T.D. Tjan,
M. Rothenburger, A. Hoffmeier, H.H. Scheld, C. Schmid KM, EM
Skeletonization versus pedicle preparation of the radial artery with
and without the ultrasonic scalpel.
Ann. Thorac. Surg. (2003), in press.

- Sisu, E., A. Iascu, V. Bercean, M. T. Caproiu, A. Zamfir, I. Sisu, C. Neanu, C. Csunderlik, V. Rusu, J. Peter-Katalinić
New Glycosyl Derivatives of 5-Substituted-3-mercapto-1,2,4-triazole.
Revista de Chimie (Romania) 54 (2003) 181-183. BC, ESI
- Stracke, W., G. González, U. Keller, S. González, A. Ricker, R. Reichelt
High-resolution scanning electron and scanning force microscopy of the zeolites EMT, FAU, and the intergrowth system EMT/FAU.
Microsc. Microanalysis 9 (Suppl. 3) (2003) 126-127. AFM, EM
- Theiss, D., T. Schmidt, D. Kuckling, K.-F. Arndt, R. Reichelt
Determination of Hydrogel Structures by FESEM-Measurements.
Microsc. Microanalysis 9 (Suppl. 3) (2003) 368-369. EM, NBT
- Ummarino, S., M. M. Corsaro, R. Lanzetta, E. Parrilli, M. Parrilli, J. Peter-Katalinić
Determination of phosphorylation sites in lipooligosaccharides from *Pseudoalteromonas haloplanktis* TAC grown at 15°C and 25°C.
Proceedings of the 51st ASMS Conference on Mass Spectrometry and Allied Topics,
Montreal, Canada, June 8-13, 2003, extended abstract. BC, ESI
- Ummarino, S., M.M. Corsaro, M. Parilli, J. Peter-Katalinić
Determination of phosphorylation sites in the lipooligosaccharides from extremophils *Pseudoalteromonas haloplanktis* TAC grown at 15°C and 25°C.
Rapid Commun. Mass Spectrom. 17 (2003) 2226-2232. BC, ESI
- Unnewehr M, C. Homann, P.F. Schmidt, P. Sotony, G. Fischer, T. Bajanowski, B. Brinkmann, A. Du Chesne
Fracture properties of the human mandible.
Int. J. Legal Med., in press. KM
- Vakhrushev, S., A.D. Zamfir, J. Peter-Katalinić
MS to MS/MS automatic switching for glycoscreening in congenital disorders of glycosylation.
Proceedings of the 51st ASMS Conference on Mass Spectrometry and Allied Topics,
Montreal, Canada, June 8-13, 2003, extended abstract. BC, ESI, KM

Zamfir, A., D.G. Seidler, H. Kresse, J. Peter-Katalinić
Structural investigation of chondroitin/dermatan sulfate
oligosaccharides from human skin fibroblast decorin.
Glycobiology 13 (2003), 733-742.

BC, ESI,
KM

Zamfir, A.D., D.G. Seidler, H. Kresse, J. Peter-Katalinić
Glycomics of glycosaminoglycans by capillary
electrophoresis/quadrupole timer-of-flight mass spectrometry.
Proceedings of the 51st ASMS Conference on Mass Spectrometry and
Allied Topics,
Montreal, Canada, June 8-13, 2003, extended abstract.

BC, ESI

Dissertationen und Diplomarbeiten

Diplom-, Doktor- und Habilitationsarbeiten

La Rotta Angenendt, A. LM
Entwicklung eines Verfahrens zur schnellen Tandem-Flugzeit-
Massenspektrometrie mit hoher Nachweis-Empfindlichkeit.
Dissertation (Fachbereich Physik), März 2003
Betreuer: Prof. Dr. F. Hillenkamp und Prof. Dr. H. Zacharias.

Maček, B. BC, ESI
O-fucosylation of thrombospondin type-1 Repeats: a Mass
Spectrometry Study.
Dissertation (Fachbereich Biologie) WWU Münster, Juli 2003
Betreuer: Prof. Dr. J. Peter-Katalinić und Prof. Dr. W. Stöcker.

Pohlentz, G., PD Dr. PC
Umhabilitation von Universität Bonn nach Universität Münster,
Dezember 2003.

Vorträge (V) und Poster (P) mit Abstracts

- Bartkowiak, K., G. Polentz, J. Peter-Katalinić, B. Brandt
Strategy for identification of c-erbB-2 and its phosphorylation status.
IZKF Status Seminar, Gut Havichorst, October 10 - 11, 2003 (V). BC, ESI
- Bindila, L., M. Froesch, A. Zamfir, S. Usuki, R.K. Yu, J. Peter-Katalinić, Ž. Vukelić
Identification of Sialylated and Sulfated Glycosphingolipids by Fourier Transform Ion Cyclotron Resonance and Sustained off-Resonance Irradiation Mass Spectrometry.
14th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, November 20 - 22, 2003, Lille, France (P). BC, FT-ICR
- Bulau, P., I. Meisen, R. Keller, J. Peter-Katalinić
Identification of Unusual Isoforms in Crustacean Hyperglycemic Hormones from the Australian Crayfish *Cherax destructor*.
36. Diskussionstagung der Deutschen Gesellschaft für Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (P). BC, ESI, ZB
- Dreisewerd, K., A. Rohlfink, B. Spottke, F. Hillenkamp, J. Rauterberg, W. Henkel
Characterisation of fibril-forming collagen proteins by IR-MALDI-MS.
16th International Mass Spectrometry Conference, Edinburgh, Scotland, August 31 - September 4, 2003 (P). BC, LM
- Froesch, M., A. Zamfir, J. Peter-Katalinić
Mapping of O-glycosylated aminoacids related to Schindler's Disease by negative ion nanoESI FT-ICR and SORI-CID ast 9.4 T.
51st ASMS Conference on Mass Spectrometry and Allied Topics, June 8 - 12, 2003, Montreal, Canada (P). BC, KM FT-ICR

- Froesch, M., L. Bindila, A. Zamfir, J. Peter-Katalinić
 Analysis and sequencing of sialylated glycopeptides from urine of patients suffering from Schindler's disease by nanoESI-FT-ICR SORI-CID tandem MS.
 14th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, November 20 - 22, 2003, Lille, France (P). BC, KM, FT-ICR
- G. Pohlentz and J. Peter-Katalinić
 Electrospray ionization collision-induced dissociation of Ag⁺-containing molecular ions of oligosaccharides yields diagnostic ring cleavage ions.
 14th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, November 20 - 22, 2003, Lille, France (P). BC, ESI
- Grote, M., R. Valenta, R. Reichelt
 Immunogold scanning electron microscopy of abortive pollen germination: How birch, hazel, and alder release allergic particles into the atmosphere.
 Microscopy Conference MC 2003. Dresden, September 7 - 12, 2003 (P). AL, EM, KM
- Grünwald, D., M.C. Cardoso, A. Hoekstra, R. Peters, U. Kubitscheck
 Visualization of Single-Molecule Traces and Biomolecular Interactions within Living Cells with Millisecond Time Resolution. Int. Symposium on "Elucidating Biomolecular Networks by Single-Molecule Technologies"
 Ascona, October 26 - 31, 2003 (V). BP, ZB
- Grünwald, D., M.C. Cardoso, A. Hoekstra, R. Peters, U. Kubitscheck
 Dynamical processes within the cell nucleus analyzed at the single-molecule level.
 9th Int. Workshop on "Single Molecule Detection and Ultrasensitive Analysis in the Life Sciences"
 Berlin, September 22 - 24, 2003 (P). BP, ZB

- Hoekstra, A., T. Kues, R. Peters, U. Kubitscheck
Single splicing factors observed in nuclei of living cells.
47th Annual American Biophysical Society Meeting, San Antonio,
Texas, March 1 - 5, 2003 (V). BP, ZB
- Hofsteenge, J., A. Gonzales de Peredo, D. Klein, D. Hess, B.
Maček, J. Peter-Katalinić
Protein C-Mannosylation and Fucosylation.
Gordon Winter Conference on Glycobiology, Ventura, Ca., USA,
Febr. 28 - March 5, 2003 (V). BC, ESI
- Kölbl, S., C. Kunz, M. Flügger, J. Peter-Katalinić, G. Pohlentz
Characterization of Complex Oligosaccharides from Elephant Milk
(*Elephas maximus*).
14th Joint Meeting of the „Studiengruppe Glykobiologie der
Gesellschaft für Biochemie und Molekularbiologie“, the
„Nederlandse Vereininging voor Glycobiologie“ and the „Groupe
Lillois de Glycobiologie“, Nov. 20 - 22, 2003, Lille, France (P). BC, ESI
- Kölbl, S., G. Pohlentz, J. Peter-Katalinić
Elephant Milk proteomics: Identification of proteins from Elephant
Milk (*Elephas maximus*) by *de-novo* Sequencing of Peptides Derived
From in-Gel Tryptic Digests and Homology Search.
36. Diskussionstagung der Deutschen Gesellschaft für
Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (P). BC, ESI
- Krzyzanek, V. and R. Reichelt
MASDET: A New MATLAB Package for Mass Determination of
Matter Using Transmitted Scattered Electrons.
Microscopy Conference MC 2003. Dresden, September 7 - 12, 2003
(P). EM, BP
- Krzyzanek, V. and R. Reichelt
MONCA: A New MATLAB Package for Monte Carlo Simulation
of Electron Scattering in Thin Specimens in the Energy Range 10 -
200 keV.
Microscopy Conference MC 2003. Dresden, September 7 - 12,
2003, (P). EM, BP
- Kubitscheck U., A. Hoekstra, D. Rohleder, T. Kues, J.-P. Siebrasse,
R. Peters
Nucleo-cytoplasmic transport analyzed at the single molecule level.
Focus on Microscopy 2003, April 13-16, 2003, Genua, Italy (V). BP, ZB

- Kubitscheck, U., A. Hoekstra, T. Kues, J. Siebrasse, R. Peters BP, ZB
 Single molecule analysis of nucleo-cytoplasmic transport.
 47th Annual American Biophysical Society Meeting, San Antonio,
 Texas, March 1 - 5, 2003 (P).
- Leisner, A., A. Rohlfing, S. Berkenkamp, U. Röhling, LM, BP
 F. Hillenkamp, K. Dreisewerd
 IR-MALDI mit der Matrix Glycerol: Untersuchung der Dynamik
 der expandierenden Teilchenwolke bei Anregung mit Lasern
 unterschiedlicher Impulslänge.
 36. Diskussionstagung der Deutschen Gesellschaft für
 Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (P).
- Lopez, Z.E., G. González, R. Reichelt AFM, EM
 Effect of the Si/Al ratio on the size and morphology of the crystals
 of zeolites MFI and MEL.
 Microscopy Conference MC 2003. Dresden, September 7 - 12, 2003
 (P).
- Maček, B., D. Klein, D. Hess, J. Peter-Katalinić, J. Hofsteenge BC, ESI,
 ZB
 Identification of structural determinants for O-fucosylation in
 thrombospondin type-1 repeats using site-directed mutagenesis and
 LC-MS.
 36. Diskussionstagung der Deutschen Gesellschaft für
 Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (P).
- Maček, B., D. Klein, D. Hess, J. Peter-Katalinić, J. Hofsteenge BC, ESI
 Structural determinants for O-fucosylation in thrombospondin
 type-1 repeats.
 Gordon Winter Conference on Glycobiology, Ventura, Ca., USA,
 Febr. 28 - March 5, 2003 (V).
- Maček, B., J. Hofsteenge, J. Peter-Katalinić BC, ESI
 Mass spectrometry in analysis of labile posttranslational
 modifications: application to protein O-fucosylation.
 Annual Croatian Conference on Biology,
 Sept. 5 - 7, 2003, Zagreb, Croatia (V).
- Maček, B., J. Hofsteenge, M. Floegel, J. Peter-Katalinić BC, ESI
 Capillary LC-QTOF MS in detection and structural analysis in
 complex peptide mixtures: application to glycosylation analysis of
 immunoglobulin G.
 Glycobiology 2003, December 3 - 6, 2003, San Diego, CA,
 USA (P).

- Matis, M., M. Žakelj-Mavrič, J. Peter-Katalinić
 Use of mass spectrometry and data base search for identification of proteins from organisms with unsequenced genomes.
 51st ASMS Conference on Mass Spectrometry and Allied Topics, June 8 - 12, 2003, Montreal, Canada (P). BC, ESI, BT
- Matzelle, T.R., R. Reichelt, N. Kruse
 The Influence of Crosslinking Density to the Elastic Properties of ‘Smart’ Polymers: A Scanning Force and Scanning Electron Microscopy Study.
 Microscopy Conference MC 2003. Dresden, September 7 - 12, 2003 (P). AFM, EM, NBT
- Meisen, I., J. Peter-Katalinić, J. Müthing
 Discrimination of neolacto-series gangliosides with α 2-3 and α 2-6-linked N-acetylneuraminic acid by nanoESI low energy CID tandem QTOF MS.
 14th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“, and the „Groupe Lillois de Glycobiologie“, November 20 - 22, 2003, Lille, France (P). BC, ESI
- Meisen, I., M. Langer, H. Lentzen, K. Witthohn, J. Peter-Katalinić, J. Müthing
 Structural characterization of receptor gangliosides for rViscummin (recombinant mistletoe lectin I) by immunochemical methods and mass spectrometry.
 36. Diskussionstagung der Deutschen Gesellschaft für Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (V). BC, BT, ESI
- Meisen, I., M. Langer, H. Lentzen, K. Witthohn, U. Neumann, J. Peter-Katalinić, J. Müthing
 Structural characterization of receptor gangliosides for rViscummin (recombinant mistletoe lectin) by immunochemical methods and mass spectrometry.
 36. Diskussionstagung der Deutschen Gesellschaft für Massenspektrometrie, (DGMS) 9. - 12. März 2003, WWU Münster, Germany (P). BC, ESI
- Mormann, M. and J. Peter-Katalinić
 Improvement of electron capture dissociation efficiency by resonant excitation and its applications to sequencing of modified peptides.
 51st ASMS Conference on Mass Spectrometry and Allied Topics, June 8 - 12, 2003, Montreal, Canada (P). BC, FT-ICR

- Mormann, M., B. Maček, J. Hofsteenge, J. Peter-Katalinić
Structural elucidation of O-fucosylated proteins by electron capture dissociation and low energy collision induced dissociation mass spectrometry.
14th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“, and the „Groupe Lillois de Glycobiologie“, November 20 - 22, 2003, Lille, France (P). BC, FT-ICR
- Mormann, M., H. Paulsen, J. Peter-Katalinić
Electron Capture Dissociation of O-glycosylated peptides: Radical site induced cleavage of glycosidic bonds.
5. Iglar MS Tage, Febr. 19 - 21, 2003, Universität Innsbruck, Österreich (1st Poster Prize). BC, FT-ICR
- Mormann, M., H. Paulsen, J. Peter-Katalinić
Fragmentation of glycosidic bonds during Electron Capture Dissociation of O-glycosylated peptides: charge- versus radical site-induced processes.
36. Diskussionstagung der Deutschen Gesellschaft für Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (V). BC, FT-ICR
- Mormann, M., M. Froesch, J. Peter-Katalinić
Electron Capture Dissociation of Peptides: Enhancement of the Electron Capture Process by Resonant Excitation.
36. Diskussionstagung der Deutschen Gesellschaft für Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (P). BC, FT-ICR
- Mormann, M., S. Bahrke, M.G. Peter, J. Peter-Katalinić
Electron capture dissociation of glycoconjugates.
16th International Mass Spectrometry Conference, August 31 - September 5, 2003, Edinburgh, Scotland, UK (P). BC, FT-ICR
- Müthing, J., I. Meisen, P. Bulau, M. Langer, K. Witthohn, H. Lentzen, U. Neumann, J. Peter-Katalinić
Mistletoe lectin I is a sialic acid-specific lectin with strict preference to gangliosides and glycoproteins with terminal Neu5Ac 2-6Galβ1-4GlcNAc residues.
14th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“, and the „Groupe Lillois de Glycobiologie“, Nov. 20 - 22, 2003, Lille, France (V). BC, KM

- Müthing, J., M. Langer, M. Burg, K. Witthohn, J. Peter-Katalinić, J. Eck, H. Lentzen
The anticancer drug rViscumin specifically binds to CD75s receptors.
BDA 7th International Meeting and First World Congress on Biotherapy of Cancer: From Disease to Targeted Treatment. Munich, Germany, September 10 - 13, 2003 (P). BC, KM, ZB
- Peter, M.G. and J. Peter-Katalinić
Sequence Analysis of Oligosaccharides.
10th NAPRECA Conf., Aug. 31 - Sept. 5, 2003, Addis Abbeba, Ethiopia (V). BC, ESI
- Peter-Katalinić, J. and A. Zamfir
Advances of CE/Tandem MS Glycoscreening in Biomedical Research.
16th Int. Symposium on Microscale Separations and Analysis, January 16 - 23, 2003, San Diego, Ca., USA (V). BC, ESI
- Pohlentz, G. and J. Peter-Katalinić
Electrospray ionization collision-induced dissociation of Ag⁺-containing molecular ions of oligosaccharides yields diagnostic ring cleavages.
51st ASMS Conference on Mass Spectrometry and Allied Topics, June 8 - 12, 2003, Montreal, Canada (P). BC, ESI
- Rajčević, U., M. Matis, J.R. Lee, R. Komel, J. Peter-Katalinić
Identification of differentially expressed proteins in gastric adenocarcinoma from samples obtained by Laser Capture Microdissection.
51st ASMS Conference on Mass Spectrometry and Allied Topics, June 8 - 12, 2003, Montreal, Canada (P). BC, ESI, KM
- Rohlfing, A., A. Leisner, C. Menzel, U. Röhling, L.M. Kukreja, F. Hillenkamp, K. Dreisewerd
MALDI with Pulsed Infrared Lasers: Mechanistic Insights from Photoacoustic Studies and Fast Flash Imaging Experiments.
Conference on Laser Ablation (COLA 2003), October 5 - 10, 2003, Hersonossos, Greece (P). LM, BP

- Spottke, B., van den Boom, D., F. Hillenkamp LM, BC
 Allele frequency determination based on RNA cleavage reaction
 using UV-MALDI-MS.
 36. Diskussionstagung der Deutschen Gesellschaft für
 Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (P).
- Stracke, W., G. González, U. Keller, S. González, A. Ricker, AFM, EM
 R. Reichelt
 High-resolution scanning electron and scanning force microscopy of
 the zeolites EMT, FAU, and the intergrowth system EMT/FAU.
 Microscopy Conference MC 2003, Dresden, September 7 - 12, 2003
 (P).
- Theiss, D., T. Schmidt, D. Kuckling, K.-F. Arndt, R. Reichelt EM, NBT
 Determination of Hydrogel Structures by FESEM-Measurements.
 Microscopy Conference MC 2003, Dresden, September 7 - 12, 2003
 (P).
- Ummarino, S., M.M. Corsaro, R. Lanzetta, E. Parilli, M. Parilli, BC, ESI
 J. Peter-Katalinić
 Determination of phosphorylation sites in lipooligosaccharides from
Pseudomonas haloplanktis TAC 125 grown at 15° C and 25° C.
 51st ASMS Conference on Mass Spectrometry and Allied Topics,
 June 8 - 12, 2003, Montreal, Canada (P).
- Ummarino, S., M.M. Corsaro, R. Lanzetta, M. Parilli, BC, ESI
 J. Peter-Katalinić
 A Novel Approach for Determination of Phosphorylation Sites in
 Lipooligosaccharides by NanoESI-QTOF Tandem MS.
 36. Diskussionstagung der Deutschen Gesellschaft für
 Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (P).
- Vakhrushev, S, A. Zamfir, A. Sterling, H.J. Niebel, M. Allen, BC, ESI
 J. Peter-Katalinić
 Combination of computational algorithm and automated chip-based
 nanoelectrospray quadrupole time-of-flight tandem mass
 spectrometry for analysis of complex glycoconjugate mixtures.
 14th Joint Meeting of the „Studiengruppe Glykobiologie der
 Gesellschaft für Biochemie und Molekularbiologie“, the
 „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe
 Lillois de Glycobiologie“, Nov. 20 - 22, 2003, Lille, France (V).

- Vakhrushev, S., A. Zamfir, J. Peter-Katalinić
MS to MS/MS automatic switching for glycoscreening in congenital disorders of glycosylation.
51st ASMS Conference on Mass Spectrometry and Allied Topics, June 8 - 12, 2003, Montreal, Canada (P). BC, ESI
- Vakhrushev, S., C. Nahrings, J. Peter-Katalinić
Identification of a phosphorylated glycopeptide from urine of a CDG patient.
36. Diskussionstagung der Deutschen Gesellschaft für Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (P). BC, ESI, KM
- Vukelić, Ž., W. Metelmann-Strupat, A. Zamfir, L. Bindila, M. Froesch, J. Peter-Katalinić
Potentials of modern mass spectrometric methods in neuroscience research and neuropathological diagnostics: mapping and sequencing of brain gangliosides.
1st Croatian Neuroscience Meeting, November 21 - 22, 2003, Zagreb, Croatia (V). ESI, KM, FT-ICR
- Zamfir, A., D. Seidler, H. Kresse, M. Mormann, J. Peter-Katalinić
Identification of Glycosaminoglycan Glycoforms by Mass Spectrometry.
Symposium „Glykane und Glykomimetika in Medizin und Pharmazie“, 14. November 2003, Charite-Universitätsmedizin, Berlin (P). BC, FT-ICR
- Zamfir, A., A. Sterling, S. Vakhrushev, H.J. Niebel, M. Allen, J. Peter-Katalinić
Mapping and sequencing of carbohydrates by automated chip-based nanospray quadrupole time-of-flight tandem mass spectrometry.
16th International Mass Spectrometry Conference, August 31 - September 5, 2003, Edinburgh, Scotland, UK (P). BC, ESI
- Zamfir, A., D. Seidler, H. Kresse, M. Mormann, J. Peter-Katalinić
CE-QTOF and FT-ICR for Glycomics of Glycosaminoglycans.
16th International Mass Spectrometry Conference, August 31 - September 5, 2003, Edinburgh, Scotland, UK (P). BC, ESI, FT-ICR
- Zamfir, A., D. Seidler, H. Kresse, M. Mormann, J. Peter-Katalinić
Glycomics of Glycosaminoglycans.
Glycobiology 2003, December 3 - 6, 2003, San Diego, CA, USA (P). BC, FT-ICR

Zamfir, A., D.G. Seidler, H. Kresse, J. Peter-Katalinić BC, ESI
Glycomics of glycosaminoglycans by capillary
electrophoresis/quadrupole time-of-flight tandem mass
spectrometry.
51st ASMS Conference on Mass Spectrometry and Allied Topics,
June 8 - 12, 2003, Montreal, Canada (V).

Zamfir, A., D.G. Seidler, H. Kresse, J. Peter-Katalinić BC, ESI
CE-MS CID-VE for glycomics of glycosaminoglycan
oligosaccharides from human skin fibroblast decorin.
36. Diskussionstagung der Deutschen Gesellschaft für
Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster (V).

Eingeladene Vorträge

- Benninghoven A. und F. Hillenkamp LM
Ms in MS.
36. Diskussionstagung der Deutschen Gesellschaft für
Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster.
- Hillenkamp, F. LM, BC
The Molecular Age in the Life Sciences: Is there a Role for
MALDI in Genomics?
2003 Annual Meeting of the Association of Biomolecular
Research Facilities (ABRF),
Denver, CO, February 10 - 13, 2003.
- Hillenkamp, F. BC, LM
The proteomics approach to DNA analysis by MALDI-MS.
Spring Symposium Advances in Mass Spectrometry of
Biopolymers,
Boston University School of Medicine Mass Spectrometry
Resource,
Boston, April 26, 2003.
- Hillenkamp, F. BC, LM
MALDI Massenspektrometrie von Nukleinsäuren:
Strukturbedingte Limitationen und Anwendungen.
GDCh-Kolloquium, Fachbereich Chemie, Universität Frankfurt.
6. Mai, 2003.
- Hillenkamp, F. LM, BC
MALDI Mass Spectrometry: Past present and Future.
Liebig Symposium on Bioanalytical Quantum Steps.
Schloß Rauischholzhausen, May 12 - 15, 2003.
- Hillenkamp, F. LM, BC
MALDI Massenspektrometrie von Oligonukleotiden:
Möglichkeiten und Grenzen.
Kolloquium des Instituts für Strahlenschutz des
Forschungszentrums für Umwelt und Gesundheit; Neuherberg
bei München, 27. Mai 2003.

- Hillenkamp, F. BC, LM
MALDI Mass Spectrometry of Nucleic Acids.
XXI Congresso Nazionale Della Societa Chimica Italiana,
Torino, June 22 - 27, 2003.
- Hillenkamp, F. LM
Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry
(MALDI-MS): Principles and Techniques.
Eight International Summer School on Biophysics:
Supramolecular Structure and Function.
Rovinj, (Istria) Croatia, September 14 - 26, 2003.
- Hillenkamp, F. BC, LM
Analysis of Oligonucleotides by MALDI-MS.
Eight International Summer School on Biophysics:
Supramolecular Structure and Function.
Rovinj, (Istria) Croatia, September 14 - 26, 2003.
- Hillenkamp, F. LM, BC
Matrix Assisted Laser Desorption/Ionization Mass Spectrometry
of Nucleic Acids.
International Chemical Conference-Taipei.
Taipeh, Taiwan, October 29 - November 1, 2003.
- Hillenkamp, F. LM, BP
Desorption and Plume Dynamics in MALDI-MS.
International Chemical Conference-Taipei.
Taipeh, Taiwan, October 29 – November 1, 2003.
- Hillenkamp, F. LM
MALDI Mass Spectrometry: Mechanisms, Technology and
Applications.
G. Frederick Smith Lecture, Department of Chemistry,
University of Illinois.
Urbana, IL, November 3, 2003.
- Hillenkamp, F. LM, BC
MALDI-MS of Nucleic Acids.
G. Frederick Smith Lecture, Department of Chemistry,
University of Illinois.
Urbana, IL, November 3, 2003.

- Hillenkamp, F. BC, LM
 Genomic Applications of MALDI-Mass Spectrometry.
 Danforth Symposium of Am. Chem. Society.
 Saint Louis, MO, November 7, 2003.
- Hillenkamp, F. LM, BC
 MALDI Mass Spectrometry of Non-Covalent Complexes:
 Options and Limitations.
 3rd NCCR Symposium, on New Trends in Structural Biology.
 Zürich, November 14 - 15, 2003.
- Hillenkamp, F. und M. Karas LM
 Was wir Alles nicht über MALDI wissen, oder vom Lob der
 Streitkultur.
 GDCh-Jahrestagung Chemie 2003, Festveranstaltung,
 München, 6. - 11. Oktober 2003.
- Kubitscheck, U. BP, ZB
 Single RNA molecules and RNP particles in the nucleus of the
 living cell: visualization, tracking and mobility analysis.
 Workshop on „Single Molecule Detection in Living Cells“ im
 Rahmen des Schwerpunkts der VolkswagenStiftung
 „Einzelmoleküle in Physik, Chemie und Biologie“,
 Altleiningen, Germany, 27.4. - 1.5.2003.
- Kubitscheck, U. BP, ZB
 Untersuchung der Funktion und Dynamik von supramolekularen
 Komplexen und Spleissfaktordomänen in Zellkernen mittels
 Einzelmolekül-Mikroskopie.
 Fachgruppe Chemie: Institut für Physikalische Chemie,
 Universität Bonn, 7.5.2003.
- Kubitscheck, U. BP, ZB
 Single molecule microscopy in the cellular interior.
 Département de Biologie-IFR 36, Ecole Normale Supérieure,
 Paris, May 22, 2003.
- Kubitscheck, U. BP, ZB
 Dynamical processes in supramolecular complexes analyzed at
 the single molecule level.
 Delft University of Technology, Dept. Of Applied Physics,
 June 4, 2003.

- Kubitscheck, U. BP, ZB
 Leben en détail: Die Dynamik einzelner supramolekularer
 Komplexe im Kern der lebenden Zelle.
 Fachbereich Physik, Universität Kaiserslautern, 9.7.2003.
- Kubitscheck, U. BP, ZB
 Photobleaching Methods in Confocal Microscopy: Principles
 and Applications.
 International Advanced Microscopy Course, Leica
 Microsystems, Heidelberg, September 24, 2003.
- Meisen, I. BC, ESI
 Structural characterization of mistletoe lectin I ligands by
 nanoESI-QTOF mass spectrometry.
 University of Split School of Medicine, Split, Croatia,
 September 19, 2003.
- Müthing, J. KM, BC
 Binding specificity of mistletoe lectin I and clinical perspectives
 for human cancer therapy.
 University of Split, School of Medicine, Split, Croatia,
 September 19, 2003.
- Peter-Katalinić, J. BC, ESI
 Perspective of Proteomics in ECM Research, SFB 492
 Kolloquium, Institut für Physiologische Chemie und
 Pathobiochemie, Universität Münster, 10. 2. 2003.
- Peter-Katalinić, J. BC,
FT-ICR
 Dissecting O-glycosylation of proteins by FT-ICR at 9.4 T.
 4th North American FT-ICR Mass Spectrometry Conference,
 Marconi Conference Center, CA, USA, April 3 - 6, 2003.
- Peter-Katalinić, J. BC, ESI,
BT
 MS Strategies for N- and O-Glycoproteomics.
 4th Proteomics Information Exchange Meeting, Münster,
 May 4 - 7, 2003 .

<p>Peter-Katalinić, J. Accurate Mass Determination of Biopolymers by Fourier Transform Ion Cyclotron Resonance Mass Spectrometry at 9.4 T. 9th Summer School on Biophysics, September 14 - 26, 2003, Rovinj, Croatia.</p>	<p>BC, FT-ICR</p>
<p>Peter-Katalinić, J. Identification of Protein Structure and Modifications by Electrospray Ionization Mass spectrometry in Proteomics. 9th Summer School on Biophysics, September 14 - 26, 2003, Rovinj, Croatia.</p>	<p>BC, ESI</p>
<p>Peter-Katalinić, J. Biomedizinische Analytik mit 9.4 T FT-ICR Massenspektrometrie. DFG Rundgespräch „Hochleistungsmassenspektrometer in den Biowissenschaften“, 24./25. September 2003, Bochum.</p>	<p>BC, FT-ICR</p>
<p>Peter-Katalinić, J. ECD und SORI in der Glykokonjugat Analytik. APEX FT-ICR MS User Meeting, Bremen, 29. - 30. September 2003, Bremen.</p>	<p>BC, ESI</p>
<p>Peter-Katalinić, J. Glycomics and systems biology: new targets for mass spectrometry. 14th Joint Meeting of the „Studiengruppe Glykobiologie der Gesellschaft für Biochemie und Molekularbiologie“, the „Nederlandse Vereininging voor Glycobiologie“ and the „Groupe Lillois de Glycobiologie“, November 20 - 22, 2003, Lille, France (Plenarvortrag).</p>	<p>BC, ESI</p>
<p>Peter-Katalinić, J., A. Zamfir, M. Mormann, D.G. Seidler, H. Kresse Consideration of CE-QTOF and FT-ICR for Glycomics of Glycosaminoglycans. 5. Iglar MS Tage, February 19 - 21, 2003, Universität Innsbruck, Österreich.</p>	<p>BC, ESI, FT-ICR</p>

Reichelt, R.
Characterization of hydrogel by high resolution scanning
electron and atomic force microscopy.
2nd International Symposium on "Reactive Polymers in
Inhomogeneous Systems in Melts and at Interfaces (SFB 287
"Reactive Polymere")
Dresden, September 28 - October 1, 2003.

AFM, EM,
NBT

Zamfir, A. and J. Peter-Katalinić
Sheathless Capillary Electrophoresis/Electrospray Ionization
Tandem Mass Spectrometry for Biomedical Analysis.
InCom 2003, Universität Düsseldorf, 25. März 2003.

ESI, KM

Auszeichnungen und Preise

Bindila, L.

Beckman Coulter (USA) 1st Prize für „Putting CE to work“ (mit Skulptur).

Hillenkamp, F.

February 2003, Denver, CO, USA:

Award for

"Outstanding Contributions to Biomolecular Technologies and Applications"
of the Association of Bioanalytical Research Facilities (ABRF).

Hillenkamp, F.

September 2003:

Thompson Medal

of the Int. Mass Spectrometry Society.

Hillenkamp, F.

Oktober 2003:

Fresenius Preis

of the German Chemical Society (GDCh).

Hillenkamp, F.

Dezember 2003:

Beckurts Preis

of the German Helmholtz Association.

Mormann, M.

„Spectronex-Igls-Prize“ für „Electron Capture Dissociation of O-glycosylated
peptides: Radical site induced cleavage of glycosidic bonds“.

5. Iglers MS Tage, Febr. 19-21, 2003, Universität Innsbruck, Österreich.

Andere Aktivitäten

Müthing, J.
-Croatian Medical Journal, Advisory Board.

Müthing, J.
-Neurologia Croatica, Editorial Board.

Peter-Katalinić, J.
-Mitglied des Vorstandes der Deutschen Gesellschaft für Massenspektrometrie (DGMS).

Peter-Katalinić, J.
Chairperson "Glycomics" at the 51st ASMS Conference on Mass Spectrometry and Allied Topics, June 8 - 12, 2003, Montreal, Canada.

Peter-Katalinić, J., M. Mormann, I. Meisen, P. Bulau
Organisation der 36. Diskussionstagung der Deutschen Gesellschaft für Massenspektrometrie (DGMS) 9. - 12. März 2003, Münster
Abstractbook: ISBN: 3-00-010904-8

Reichelt, R.
Vorsitzender des Organizing Committee of the Microscopy Conference 2003 in Dresden, Dresden, 07. – 12.09.2003.

Reichelt, R.
Vorsitzender der Deutschen Gesellschaft für Elektronenmikroskopie e.V. (DGE).

Reichelt, R.
Mitglied des Programmkomitee der Dreiländertagung für Mikroskopie in Davos / CH (2005).

Drittmittelprojekte, Personalstellen und Sachmittel 2003:

Cardoso, M.C., MDC, Berlin; H. Leonhardt, LMU München; U. Kubitscheck, WWU Münster
Analyse der Genom-Replikation in lebenden Zellen auf der Ebene einzelner Moleküle.
Projekt im Schwerpunkt „Physik, Chemie und Biologie mit Einzelmolekülen“ der Volkswagen-Stiftung.

Kubitscheck, U. und R. Peters
Translokation einzelner Substratmoleküle durch den Porenkomplex der Zellkernhülle analysiert mittels Drei-Kanal-Einzelmolekül-Fluoreszenzmikroskopie.
Projekt im Rahmen des DFG Schwerpunktprogramms „Optische Analyse der Struktur und Dynamik Supramolekularer Komplexe“.

Kubitscheck, U.
Transportpfade einzelner Moleküle und Nanopartikel im Kern der lebenden Zelle.
Projekt im Rahmen des DFG-Schwerpunkts „Funktionelle Architektur des Zellkerns“.

Kubitscheck, U. und R. Peters
Einzelmolekülanalyse einer zellulären Proteinpumpe in vivo; Projekt im Schwerpunkt „Physik, Chemie und Biologie mit Einzelmolekülen“ der Volkswagen-Stiftung.

Müthing, J. (Personalstellen)
Charakterisierung von rViscumin-Rezeptoren (BD 133503).

Naber, A., Universität Karlsruhe und U. Kubitscheck
Messung einzelner Transportereignisse durch einzelne Porenkomplexe der Kernhülle mittels optischer Nahfeldmikroskopie.
Projekt im Rahmen des DFG Schwerpunktprogramms „Optische Analyse der Struktur und Dynamik Supramolekularer Komplexe“.

Nembach, E., Inst. Für Materialphysik, WWU und R. Reichelt
DFG-Projekt NE 123/34-3
"Anwendungen des Rasterkraftmikroskops in der Materialphysik".

Peter-Katalinić, J., R. Keller, Universität Bonn, A. Sagi, Ben-Gurion University, Israel
DFG-Projekt Pe 415/15-1, 15-2
Identifizierung, Strukturaufklärung und biologische Aktivitäten des Androgenen Hormons der dekapoden Krebse.

Peter-Katalinić, J.
SFB 492 "Extrazelluläre Matrix: Biogenese", Projekt Z 2
Quadrupol Flugzeit und Fourier Transform Ionen Zyklotron Resonanz
Massenspektrometrie von Gykosaminoglykanen und anderen Glykokonjugaten.

Peter-Katalinić, J.
IMF, Universität Münster
O-Fukosylierung in Thrombospondin.
Promotionsstipendium B. Maček, Juli 2002 - 2003.

Peter-Katalinić, J., Prof. Dr. B. Brandt, Institut für Klinische Chemie und
Laboratoriumsmedizin, PD Dr. H. Burger, Gerhard-Domagk-Institut für Pathologie
IZKF, Universität Münster, Projekt H1.
Genexpressions-und Funktionsanalysen zu Pathogenewesen des invasiven
Mammakarzinoms und seiner potentiellen Vorläuferläsionen.

Peters, R.
Mitochondrial translocase channels as models of single-protein sensing nanopores.
Volkswagen-Stiftung.

Reichelt, R.
Diverse Projekte mit kleinen und mittleren Firmen / Industrie.

Reichelt, R.
NATO-Fellowship für Lubomir Kovacik (Januar-Mai 2003)

Abkürzungsverzeichnis

AFM	Atomkraftmikroskopie
AL	Elektronenmikroskopische Untersuchungen zur Allergologie
BC	Biochemie
BP	Biophysik
BT	Biotechnologie
EM	Elektronenmikroskopie
ESI	Elektrospray Massenspektrometrie
FT-ICR	Fourier Transform Ion Cyclotron Resonance
KM	Klinisch-medizinische Fragestellung
LM	Laser-Massenspektrometrie
LSM	Laser-Scanning-Mikroskopie
NBT	Nanobiotechnologie
PC	Physiologische Chemie
SSM	Scanning-Sensormikroskopie
ZB	Zellbiologie