

7 Literaturverzeichnis

1. R.K. Saiki, S.J. Scharf, F. Faloona , K.F. Mullis, G.T. Horn, H.A. Ehrlich N. Arnheim „PCR“, Science **1985**, 230, 1350-1354.
2. J. C. Venter et. al „The Sequence of the Human Genome“, Science **2001**, 291, 1304-1351.
3. Eric S. Lander, et al. „Initial sequencing and analysis of the human genome“, Nature **2001**, 409, 860 – 921.
4. D. Lockhart, E. Winzeler „Genomics, gene expression and DNA arrays“, Nature **2000**, 405, 827-836.
5. D.W. Selinger, K.J. Cheung, R. Mei, E.. Johansson, .C.S. Richmond, F. R. Blattner, J.D. Lockhart, G.M. Church „RNA expression analysis using a 30 base pair resolution Escherichia coli genome array“, Nat. Biotechnol. **2000**, 18, 1262-1268.
6. L. Anderson, J. Seilhamer „A comparison of selected mRNA and protein abundances in human liver“, Elektrophoresis **1997**, 18, 533-537.
7. S.P. Gygi, Y. Rochon, B. R. Franza, R. Aebersold „Correlation between protein and mRNA abundance in yeast“, Mol. Cell. Biol. **1999**, 19, 1720-1730.
8. V. Hatzimanikatis, K.H. Lee „Dynamical analysis of gene networks requires both mRNA and Protein expression information“, Metabolic Eng. **1999**, 1, 275-281.
9. V.C. Wasinger, S.J. Cordwell, A. Cerpa-Poljak, J.X. Yan, A.A. Gooley, M.R. Wilkins, M.W. Duncan, R. Harris, K.L. Williams, I. Humphery-Smith „Progress with gene-product mapping the Mollicutes: Mycoplasma genitalium“, Electrophoresis **1995**, 16, 1090-1094.
10. M.R. Wilkins, J.C. Sanchez, A:A. Gooley, R.D: Appel, I. Humphery-Smith and D.F. Hochstrasser “Progress with proteome projects: why all proteins expressed by a genome should be identified and how to do it“, Biotechnol. Genet. Eng. Rev. **1995**, 13, 19-50.
11. J. Klose, U. Kobalz “Two-Dimensional electrophoresis of proteins: An updated protocol and implications for functional analysis of the genome“, Electrophoresis **1995**, 16, 1034-1059.
12. J. Klose, Humangenetik **1975**, 26, 231-243.

13. W.F. Patton „*Making blind robots see: the synergy between fluorescent dyes and imaging devices in automated proteomics*“, BioTechniques **2000**, 28, 944-957.
14. T.R. Covey, R.F. Bonner, B.I. Shushan, J. Henion, Rapid Commun. Mass Spectrom. **1988**, 2, 249-256.
15. J.B. Fenn, M. Mann, C.K. Meng, S.F. Wong, C.M. Whitehouse, Science **1989**, 246, 64-71.
16. R.D. Smith, J.A. Loo, C.G. Edmonds, C.J. Barinaga, H.R. Udseth, Anal. Chem. **1990**, 62, 882.
17. M. Karas, F. Hillenkamp "Laser desorption ionization of proteins with molecular masses exceeding 10,000 daltons", Anal. Chem. **1988**, 60, 2299-2301.
18. F. Hillenkamp, M. Karas, R.C. Beavis and B. Chait "Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry of Biopolymers", Anal. Chem. **1991**, 63, 1193-1203.
19. M. Karas, F. Hillenkamp "UV Laser desorption of proteins up to 100,000 Daltons", Pres. At the 11th Int. Mass Spectrom. Conf. Bordeaux 29.Aug.-2.Sept. **1988**.
20. L. Konermann and D.J. Douglas "Acidinduced unfolding of cytochrome c at different methanol concentrations: electrospray ionization mass spectrometry specifically monitors changes in the tertiary structure", Biochemistry **1997**, 36, 12296-12302.
21. M.O. Glocker, C. Borchers, W. Fiedler, D. Suckau and M. Przybylski "Molecular characterization of surface topology in protein tertiary structures by amino-acylation and mass spectrometric peptide mapping", Bioconjug. Chem. **1994**, 5, 583-590.
22. J. Gao, D.H. Yin, Y. Yao, H. Sun, Z. Qin, C. Schoneich, T.D. Williams and T.C. Squier "Loss of conformational stability in calmodulin upon methionine oxidation", Biophys J. **1998**, 74, 1115-1134.
23. A.N. Verentchikov, W. Ens and K.G. Standing "Reflecting time-of-flight mass spectrometer with an electrospray ion source and orthogonal extraction", Anal. Chem. **1994**, 66, 126-133.
24. M. Wilm and M. Mann "Analytical properties of the nanoelectrospray ion source", Anal. Chem. **1996**, 68, 1-8.

25. M. Wilm, A. Shevchenko, T. Houthaeve, S. Breit, L. Schweiger, T. Fotsis and M. Mann "Femtomole sequencing of proteins from polyacrylamide gels by nano-electrospray mass spectrometry", *Nature* **1996**, 379, 466-469.
26. R. Zenobi and R. Knochenmuss "Ion formation in MALDI mass spectrometry", *Mass Spectrom. Rev.* **1998**, 17, 337-366.
27. B.A. Mamyrin, V.I. Karataev. and V.A. Zagulin "Mass-reflectron. Novii bezmagnitnii vremja-proliotnii mass-spectrometr s visokoi razreshaushei sposobnostju", Sov. Phys. JETP **1973**, 64, 82-89.
28. M. Guilhaus „Principles and Instrumentation in Time-of-flight Mass Spectrometry“, *J. Mass Spectrom.* **1995**, 30, 1519-1532.
29. M. Guilhaus, V. Mlynski and D. Selby „Perfect Timing: Time-of-flight Mass Spectrometry“, *Rapid Commun. Mass Spectrom.* **1997**, 11, 951-962.
30. X. Tang, R. Beavis, W. Ens, F. Lafourte, B. Schueler and K.G. Standing "A secondary ion time-of-flight mass spectrometer with an ion mirror", *Int. J. Mass Spectrom. Ion Proc.* **1988**, 85, 43-67.
31. M.L. Vestal, P. Juhasz, A. Martin, "Delayed Extraction Matrix-assisted Laser Desorption Time-of-flight Mass Spectrometry", *Rapid Commun. Mass Spectrom.* **1995**, 9, 1044-1050.
32. R.S Brown and J.J Lennon "Mass Resolution Improvement by Incorporation of Pulsed Ion Extraction in a Matrix-Assisted Laser Desorption/Ionization Linear Time-of-Flight Mass Spectrometer", *Anal. Chem.* **1995**, 67, 1998-2003.
33. K. Biemann "Mass spectrometry of peptides and protein", *Annu. Rev. Biochem.* **1992**, 61, 977-1010.
34. P. Roepstorff "Mass spectrometry in protein studies from genome to function", *Curr. Opin. Biotech.* **1997**, 8, 6-13.
35. C.E. Costello, "Time, life...and mass spectrometry", *Biophys. Chem.* **1997**, 68, 173-188.
36. A.L. Burlingame, R.K. Boyd and S.J. Gaskell "Mass Spectrometry", *Anal. Chem.* **1998**, 70, 647R-716R.
37. U.K. Lämmli „Cleavage of structural proteins during the assembly of the head of bacteriophage T4“, *Nature* **1970**, 227, 680-685.

38. W.J. Henzel, T.M. Billeci, J.T. Stults, S.C. Wong, C. Grimley and C. Watanabe "Identifying proteins from two-dimensional gels by molecular mass searching of peptide fragments in protein sequence databases.", Proc. Natl. Acad. Sci. **1993**, 90, 5011-5015.
39. P. James, M. Quadroni, E. Carafoli and G. Gonnet "Protein Identification by Mass Profile Fingerprinting.", Biochem. Biophys. Res. Commun. **1993**, 1, 58-64.
40. M. Mann, P. Hojrup and P. Roepstorff "Use of mass-spectrometric molecular-weight information to identify proteins in sequence databases.", Biol. Mass Spectrom. **1993**, 22, 338-345.
41. M. Mann, M. Wilm, Anal. Chem. **1994**, 66, 4390-4399.
42. A. Shevchenko, M. Wilm, O Vorm, M. Mann, M. Anal. Chem. **1996**, 68, 850-858.
43. J.R Yates, J.K. Eng, A.L McCormack, Anal. Chem. **1995**, 67, 3202-3210.
44. J.R. Yates, S.F. Morgan, C.L. Gatlin, P.R. Griffin, J.K. Eng, Anal. Chem. **1998**, 70, 3557-3565.
45. D. Fenyö, Curr. Opin. Biotechnol. **2000**, 11, 391-395.
46. O.N. Jensen, A. Podtelejnikov, M. Mann, Rapid Commun Mass Spectrom. **1996**, 10, 1371-1378.
47. E. Nordhoff, H. Eickhoff, M. Horn, T. Przewieslik, V. Egelhofer, P. Giavalisco, D. Theiss, H. Lehrach, and J. Gobom "Large-Gel 2-DE - MALDI-TOF-MS – An Analytical Challenge for Studying Complex Protein Mixtures", Electrophoresis **2001**, accepted.
48. J. Gobom, M. Schuerenberg, M. Mueller, D. Theiss, H. Lehrach, E. Nordhoff, „ α -Cyano-4-hydroxycinnamic Acid Affinity Sample Preparation. A Protocol for MALDI-MS Peptide Analysis in Proteomics“, Anal. Chem. **2000**, ASAP Article, Web Release Date: December 28.
49. M. Schuerenberg, C. Luebbert, H. Eickhoff, M. Kalkum, H. Lehrach, E. Nordhoff, Anal. Chem. **2000**, 72, 3436-3442.
50. H. Rashidi, L.,K. Bühler „Grundriss der Bioinformatik. Anwendungen in den Biowissenschaften und der Medizin“, Spektrum Akad. Verlag **2001**.
51. A. Hansen „Bioinformatik. Ein Leitfaden für Naturwissenschaftler“, 2001, Birkhäuser, Biel-Benken.

52. M.L. Vestal, Proceedings of the 43rd ASMS conference of mass spectrometry and allied topics, Atlanta, Georgia **1995**, 195.
53. A. Ingendoh, M. Karas, F. Hillenkamp, U. Giessmann, Int. J. Mass Spectrom. **1994**, 131, 345.
54. V. Egelhofer „*Investigations for fast identification of proteins by means of mass-spectroscopically peptide mapping*“, Diplom-Arbeit, Freie Universität Berlin.
55. V. Egelhofer, K. Büssow, C. Luebbert, H. Lehrach, and E. Nordhoff, “*Improvements in protein identification by MALDI-TOF-MS peptide mapping*“, Anal. Chem. **2000**, 72, 2741-2750.
56. P.R. Baker, K.R. Klauser, **1995**, „<http://prospector.uscf.edu>“.
57. D.N. Perkins, D.J.C. Pappin, D.M. Creasy, J.S. Cotrell „*Probability-based protein identification by searching sequence databases using mass spectrometry data*“, Electrophoresis **1999**, 20, 3551-3567.
58. D.J.C Pappin, P. Hojrup and A.J. Bleasby "Rapid identification of proteins by peptide-mass fingerprinting.", Curr. Biol. **1993**, 3, 327-332.
59. W.Z. Zhang, B.T. Chait „*Profound – An expert system for protein identification using mass spectrometric peptide mapping information*“, Anal. Chem. **2000**, 72, 2482-2489.
60. L. Bretthorst In „*Maximum Entropy and Bayesian Methods*“, G. Eds. Heidbreder, Kluwer Academic Publishers, Dordrecht the Netherlands **1994**.
61. W. Zhang, B.T. Chait „*Protein Identification by Database Searching: A Bayesian Algorithm*“, Proceedings of the 43rd ASMS Conference on Mass Spectrometry and Allied Topics, Atlanta, Georgia, **1995**.
62. V. Egelhofer, J. Gobom, P. Giavalisco, H. Lehrach, and E. Nordhoff "Protein Identification by MALDI-TOF-MS peptide mapping: A New Strategy ", Anal. Chem. **2001**, submitted.
63. S. Holzner „*Java 2. Das Buch*“, Sybex-Verlag **2001**, Düsseldorf.
64. A. Solymosi, I. Schmiedecke „*Programmieren mit Java*“, Vieweg **2001**, Wiesbaden.
65. R. F. Stärk „*Java and the Java Virtual Machine. Definition, Verification, Validation*“, 2001, Springer-Verlag Berlin Heidelberg.

66. A. Bien „*Enterprise Java Anwendungen*“, Addison-Wesley **2001**.
67. F. Hawlitzek „*Java 2*“, Addison-Wesley **2000**.
68. C. S. Horstmann, G. Cornell „*Core Java 2 -Fundamentals*“, Prentice-Hall **1999**.
69. C. S. Horstmann, G. Cornell „*Core Java 2 – Advanced Features*“, Prentice-Hall **1999**.
70. G. Krüger „*Go To Java 2*“, Addison-Wesley **2000**.
71. D. Flanagan „*Java in a Nutshell*“, O'Reilly **2000**.
72. D. Flanagan „*Java Foundation Classes in a Nutshell*“, O'Reilly **2000**.
73. B. Eckel „*Thinking in Java*“, Prentice Hall **2000**.
74. JavaTM 2 SDK, Standard Edition, Version 1.2.2_008, **2001**, „<http://javasun.com/jdk/1.2/>“.
75. K. Büssow, D.J. Cahill, W. Nietfeld, D. Bancroft, E. Scherzinger, H. Lehrach, G. Walter, Nucl. Acids. Res. **1998**, 26, 5007-5008.
76. K. Büssow, „*Arrayed cDNA expression libraries for antibody screening ans systematic analysis of gene products*“, Dissertation **1998**, Frei Universität Berlin.
77. J. Gobom, M. Mueller, V. Egelhofer, Eckhard Nordhoff „*Improved mass accuracy in MALDI-TOF-MS peptide analysis*“, Anal. Chem. **2001**, submitted.
78. W. Dehnhardt „*Anwendungsprogrammierung mit JDBC. Datenbanken, Java, Client/ Server*“, Hanser Elektronik, **1999**.
79. V. Gruhn, A. Thiel „*Komponentenmodelle*“, Addison-Wesley, **2000**.
80. W. Rockwell „*XML, XSLT, Java und JSP Professionelle Web-Applikationen entwickeln*“, Galileo Press, **2000**.
81. J. Martin, J. Leben „*Client/Server Databases*“, Prentice-Hall, **1995**.
82. R. Orfali, D. Harkey „*Client/Server Programming with Java and COBRA*“, John Wiley & Sons, **1998**.
83. W.R. Cheswick, S.M. Bellovin „*Firewalls and Internet Security*“, Addison-Wesley, **1994**.

84. P. Roßbach, H. Schreiber „*Java Server und Servlets*“, Addison-Wesley, **1999**.
85. JavaTM Servlet Technology „<http://java.sun.com/products/servlet>“,
2001.
86. B. Meyer „*Objektorientierte Programmierung*“, Hanser-Verlag, **1990**.
87. B. Stroustup „*The C++ - Programming Language*“, Addison-Wesley, **1997**.
88. H. Kredel, A. Yoshida „*Thread- und Netzwerk-Programmierung mit Java*“, dpunkt, **1999**.
89. D. Lea „*Concurrent Programming*“, Addison-Wesley, **1997**.
90. S. Kleiman, D. Shah, B. Smaalders „*Programming with Threads*“, Prentice-Hall, **1996**.
91. M. Ben-Ari „*Grundlagen der Parallelprogrammierung*“, Hanser-Verlag, **1984**.
92. S. Oaks, H. Wong „*Java Threads*“, O'Reilly, **1997**.
93. M. Weber „*Verteilte Systeme*“, Spektrum-Verlag, **1998**.
94. M. Boger „*Java in Verteilten Systemen - Nebenläufigkeit, Verteilung, Persistenz*“, dpunkt, **1999**.