

LIST OF PUBLICATIONS AND PRESENTATIONS

Papers, until 1989 in the former GDR (East Germany)

Papers on the Surface Enhanced Raman Scattering (SERS)

- 1) D. Zimmer, K. Klostermann, Z. Chemie, 24 (1984) 302
- 2) D. Zimmer, K. Klostermann, Z. Chemie, 24 (1984) 450
- 3) D. Zimmer, Teubner Texte zur Physik, 1986

Papers on structure elucidation in coal derived liquids by tandem mass spectrometry:

- 4) J. Stach, D. Zimmer, R. Herzsuh: Konsekutive Fragmentierungsreaktionen derivatisierter Hydroxy-Aromaten, Z. Chemie, 29 (1989) 178-179
- 5) J. Stach, D. Zimmer, M. Möder, R. Herzsuh: Determination of hydroxyaromatic compounds in complex mixtures by tandem mass spectrometry, Org. Mass Spectrom. 24 (1989) 946-952,
- 6) M. Möder, D. Zimmer, J. Stach, R. Herzsuh: GC/MS and MS/MS investigations of derivatized hydroxyaromatic compounds from coal derived liquids, Fuel, 68 (1989) 1422-1428

Papers, since 1990

- 7) D. Zimmer, V. Muschalek: Enantioselective assay for the determination of nisoldipine in dog, rat and mouse plasma by chiral microbore high-performance liquid chromatography combined with gas chromatography-mass spectrometry, J. Chromatogr. A, 666 (1994) 241-248
- 8) D. Zimmer: Turbulent Flow Chromatographie, CLB Chemie in Labor und Biotechnik, 50. Jahrg., 8/1999, 291-297
- 9) D. Zimmer, V. Pickard, W. Czembor, C. Müller: Comparison of turbulent-flow chromatography with automated solid phase extraction in 96 well plates and liquid-liquid extraction used as plasma sample preparation techniques for liquid chromatography-tandem mass spectrometry, J. Chromatogr. A, 854 (1999) 23-35
- 10) N. Wenkel, D. Zimmer: Analyse im Eiltempo – Automatisierte Online-Probenvorbereitung und Analyse pharmazeutischer Wirkstoffe, Pharma-Process, 2-1999, 34-35
- 11) D. Zimmer, V. Pickard, W. Czembor, C. Müller: Turbulent Flow Chromatography combined with tandem Mass Spectrometry for directly injecting raw plasma samples derived from pharmacokinetic studies, Chromatogr. Suppl. 52 (2000) S-26-27
- 12) D. Zimmer, V. Muschalek, C. Müller: Determination of the metrifonate enantiomers in blood and brain samples using liquid chromatography on a chiral stationary phase coupled to tandem mass spectrometry, Rapid Commun. Mass Spectrom. 14 (2000) 1425-1432
- 13) R. Heinig, D. Zimmer, S. Yeh, G.J. Krol: Development, validation and application of assays to quantify metrifonate and 2,2-dichlorovinyl dimethylphosphate in human body fluids, J. Chromatogr. B, 741 (2000) 257-269
- 14) D. Zimmer: Introduction to quantitative LC/MS(MS), Chromatographia, Supplement 57 (2003) 325-332
- 15) J. Schuhmacher, D. Zimmer, F. Tesche, V. Pickard: Matrix effects during analytics of plasma samples by electrospray and atmospheric pressure chemical ionization tandem mass spectrometry: occurrence and elimination, Rapid Commun. Mass Spectrom., 17 (2003) 1950-1957

Papers, since 1990 (contd.)

- 16) Th. Schwarz, B. Beckermann, K. Buehner, F. Mauler, J. Schuhmacher, D. Seidel, W. Steinke, C. Weinz, D. Zimmer: Pharmacokinetics of Repinotan in Healthy and Brain Injured Animals, *Biopharm. Drug Dispos.* 26 (2005) 259-268
- 17) D. Zimmer, C. Philipowski, B. Posner, A. Gnielka and M. Dorff: Determination of deltamethrin residues in plant materials by liquid chromatography/tandem mass spectrometry with electrospray ionization, *J. AOAC International* 89 (2006) 786-796
- 18) R. Sur, D. Zimmer: HPLC-MS/MS in der Rückstandsanalytik von Pflanzenschutzmitteln, *UWSF – Z. Umweltchem. Ökotox.* 18 (2006) 21-26
- 19) O. Heudi, S. Barteau, D. Zimmer, J. Schmidt, K. Bill, N. Lehmann, C. Bauer, O. Kretz: Towards absolute quantification of therapeutic monoclonal antibodies in serum by LC-MS/MS using stable isotope-labeled antibody internal standard and protein cleavage isotope dilution mass spectrometry, *Anal. Chem.* 2008, 80(11), p. 4200 – 4207
- 20) D. Zimmer, S. Hassler, B. Betschart, S. Sack, C. Fankhauser, M. Loppacher: Internal Standard Application to Dried Blood Spots by Spraying – Investigation of the Internal Standard Distribution, *Bioanalysis* (2013) 5(6), 711-719
- 21) K. Heinig, E. Zwanziger, D. Zimmer: What are the challenges of stability investigations and sample stabilization in regulated bioanalysis?, *Bioanalysis* (2013) 5(15), 1811–1814
- 22) D. Zimmer: Bioanalytical outsourcing – the two sides of the medal., *Bioanalysis* (2013) 5(17), 2095-2099
- 23) Ask the Experts: Outsourcing in a bioanalytical laboratory, *Bioanalysis* (2013) 5(20), 2453–2462
- 24) D. Zimmer: Bioanalytical Method Validation - the draft novel FDA guidance, chromatographic methods and ISR: notable differences to the current one and comparison with the EMA BMV guideline, *Bioanalysis* (2014) 6(1), 13-19
- 25) D. Zimmer: Outsourcing strategy: local versus international contract research organizations, *Bioanalysis* (2014) 6(10), 1279-1281

Coauthor of papers as member of EBF topic teams, GBC harmonization teams and GCC:

- 26) P. Timmerman, S. White, Z. Cobb et al.: Updates from the EBF DBS–micro-sampling consortium, *Bioanalysis* (2012) 4(16), 1969-1970
- 27) M. Boterman, M. Doig, M. Breda et al.: Whitepaper: Recommendations on the interpretation of the new EMA guideline on bioanalytical method validation by Global CRO Council for Bioanalysis (GCC), *Bioanalysis* (2012) 4(6), 651–660
- 28) T. Sangster, J. Maltas, P. Struwe et al.: Recommendations on ISR in multi analyte assays, QA/bioanalytical consultants and GCP by Global CRO Council for Bioanalysis (GCC), *Bioanalysis* (2012) 4(14), 1723-1730
- 29) S. Lowes, M. Boterman, M. Doig et al. (in alphabetic order): Recommendations on bioanalytical method stability implications of co-administered and co-formulated drugs by Global CRO Council for Bioanalysis (GCC), *Bioanalysis* (2012) 4(17), 2117-2126
- 30) S. Lowes, R. Hucker, M. Jemal et al. (in alphabetic order): Tiered Approaches to Chromatographic Bioanalytical Method Performance Evaluation: Recommendation for Best Practices and Harmonization from the Global Bioanalysis Consortium Harmonization Team, *Bioanalysis*, *submitted*

Scientific Posters

- 1) – 5) Posters on Surface Enhanced Raman Scattering (SERS) at the annual conference „Chemiedozententagung“, GDR, 1984 to 1988
- 6) D. Zimmer, V. Pickard, W. Czembor, C. Müller: Comparison of turbulent-flow chromatography with automated solid phase extraction in 96 well plates and liquid-liquid extraction used as plasma sample preparation techniques for liquid chromatography-tandem mass spectrometry, 47th ASMS-Conference, Dallas, TX, June 1999
- 7) D. Zimmer, V. Pickard, W. Czembor, C. Müller: Turbulent flow chromatography/tandem mass spectrometry used for the direct injection of crude plasma samples obtained from pharmacokinetic studies, 48th ASMS-Conference, Long Beach, CA, June 2000
- 8) D. Zimmer and C. Müller: Determination of the novel PDE 5 inhibitor vardenafil and its main metabolite M-1 by reversed-phase-LC-MS/MS and turbulent flow chromatography-MS/MS, 50th ASMS-Conference, Orlando, FL, June 2002
- 9) D. Zimmer and W. Czembor: Turbulent Flow Chromatography with Cyclone / Chromolith column pair at high flow directly (without split) run into Tubolonspray MS/MS, 16th Int. MS Conference (IMSC), Edinburgh, Scotland, Sept. 2003
- 10) D. Zimmer, C. Philipowski, B. Posner, A. Gnielka and M. Dorff: A new method for the determination of deltamethrin in plants using LC/MS/MS, European Pesticide Residue Workshop (EPRW), Stockholm, June 2004
- 11) E. Schmidt, M. Preu, R. Sur, D. Zimmer: Evaluation of Losses During Cryogenic Sample Homogenization With Liquid Nitrogen and Dry Ice, European Pesticide Residue Workshop (EPRW), Corfu, June 2006
- 12) C. Bauer, J. Schmidt, K. Bill, D. Zimmer, O. Heudi, S. Barteau: Stable isotope labeled monoclonal antibodies: tool antibodies, Novartis Pharma TRD Scientific Day, 09. Nov. 2007
- 13) A. Lesur¹; E. Varesio¹; N. Oudry¹; O. Heudi²; D. Zimmer²; St. Beck²; G. Hopfgartner¹, ¹Life Sciences Mass Spectrometry, Geneva University; ²Novartis, Basel: Quantitative analysis of a therapeutic protein in human plasma by LC-MS/MS using accelerated digestion, Poster no. 963 at 56th ASMS Conference, Denver, June 2008
- 14) D. Zimmer, O. Heudi, M. Stöckli, R. Falchetto, A. Schweitzer, Novartis Pharma AG: Quantification of Drugs in Tissues by MALDI-QqQ Mass Spectrometry, NIBR/TS Science Day, Oct 01/02, 2008
- 15) S. Weber¹, B. Betschart¹, S. Sack¹, M. Loppacher², C. Fankhauser², T. Zimmermann¹, D. Zimmer¹, ¹ Harlan Laboratories Ltd., Itingen, CH; ² CAMAG, Muttenz, CH: Evaluation of the semi-automated DBS-MS Interface (CAMAG) for On-line Extraction DBS (OLE-DBS), 3rd EBF Open Symposium, Barcelona, Dec. 2010
http://www.camag.com/en/dbs/what_is_dried_blood_spot_sampling.cfm
- 16) D. Zimmer¹, S. Hassler¹, B. Betschart¹, S. Sack¹, C. Fankhauser², M. Loppacher² ¹ Harlan Laboratories Ltd., Itingen, CH; ² CAMAG, Muttenz, CH: Internal Standard (IS) Application to Dried Blood Spots (DBS) - Evaluation of a Novel Automated Application System, 59th ASMS Conference, Denver, CO, USA, Jun. 2011
http://www.camag.com/en/dbs/what_is_dried_blood_spot_sampling.cfm
- 17) D. Zimmer¹, S. Hassler¹, B. Betschart¹, S. Sack¹, C. Fankhauser², M. Loppacher² ¹ Harlan Laboratories Ltd., Itingen, CH; ² CAMAG, Muttenz, CH: Internal Standard (IS) Application to Dried Blood Spots by Spraying – Investigation of the IS distribution, 4th EBF Open Symposium, Barcelona, Nov. 2011
http://www.camag.com/en/dbs/what_is_dried_blood_spot_sampling.cfm

Oral Presentations

Presentations on the application of LC/MS/MS in Bioanalytics and Pharmacokinetics

- Seminar, University Düsseldorf, Feb. 1994
- European Pharma-Symposium of Perkin-Elmer on Modern Separation Techniques in Pharmacy and Biopharmacy (original title „Moderne Trenntechnik in der Pharmazie und Biopharmazie“), Berlin and Frankfurt, Feb. 1995
- Perkin-Elmer vendor seminar for Bayer AG, Wuppertal, Dec. 1996
- Bio-Mass Spectrometry Club, Cancer Research Center (DKFZ), Heidelberg, 1998

Organizer and chair of biannual LC/MS conferences (www.lc-ms.de) since 1996, entitled: "LC/MS Diskussionstreffen – Aktuelle Probleme in der Quantifizierung mit LC-API-MS(/MS)", Frankfurt, Wuppertal, Presentations on various topics regarding LC/MS, bioanalytics and residue analysis.

D. Zimmer: Quantitation by high throughput LC/MS/MS in pharmacokinetics with main focus on automated on-line solid phase extraction, Perkin-Elmer European Seminar „Accelerating Drug Discovery“, Heidelberg, Feb. 1997

D. Zimmer, C. Müller, V. Pickard: Determination of azlocillin and two of its metabolites by direct injection of crude plasma onto two alternating ADS columns and on-line quantitation by LC-tandem mass spectrometry:

- Perkin-Elmer LC/MS-users meeting, Montreux, Nov. 1996
- Annual Conference of the German Society of Mass Spectrometry, Konstanz, 1997
- ADS-Users Meeting, Munich, Oct. 1999

D. Zimmer: Comparison of Turbulent Flow Chromatography, automated SPE in 96 well plates and liquid/liquid extraction used as sample preparation techniques for LC/MS/MS, 15th Montreux Symposium on LC/MS, Montreux, Nov. 1998

D. Zimmer, V. Pickard, W. Czembor, C. Müller: TFC combined with API/Tandem Mass Spectrometry: A novel technique for the direct injection of crude plasma samples obtained in pharmacokinetics, Analytica Conference 2000, Munich

D. Zimmer, V. Muschalek, C. Müller: Determination of the metrifonate enantiomers in blood and brain samples using liquid chromatography on a chiral stationary phase and turboionspray/MS/MS, 17th Montreux Symposium on LC/MS, Montreux, Nov. 2000

D. Zimmer, W. Czembor, C. Müller and C. Nieland: Comparison of Turbulent Flow Chromatography, Protein Precipitation and SPE in Bioanalysis:

- Applied Biosystems LC/MS-Meeting, Leipzig, May 2001
- Seminar on Turbulent Flow Separations in LC/MS, TNO Pharma, Zeist, NL, Oct. 2001

D. Zimmer: Tutorial - Introduction to quantitative LC/MS(MS), International Symposium on Chromatography, Leipzig, Sept. 2002

D. Zimmer: Sensitive Quantitation in Pharmacokinetics with the API 4000 and Turbulent Flow Chromatography, LC/MS-vendor symposium, Applied Biosystems, Cologne, Sept. 2002

D. Zimmer, C. Müller and T. Blenkins: Vergleichende Quantifizierung mit Ion Trap MS und Triple Quadrupol MS in PK, Science Day at Axel Semrau GmbH, Sprockhövel, Dec. 2003

D. Zimmer: Current Problems in Quantitative LC-API/MS(MS), LC/MS workshop, DGMS Conference, Leipzig, Mar. 2004

D. Zimmer: Applications of Turbulent Chromatography / MS/MS in Pharmacokinetics, University Twente, Section Chemical Analysis, Enschede, Netherlands, Mar. 2004

Oral Presentations (contd.)

D. Zimmer, P. Billian, R. Schöning: The strengths of LC-MS/MS in Residue Analysis, 4th Int. Symp. of Pesticides in Food and the Environment in Mediterranean Countries and MGPR Annual Meeting 2005, Aydin, Turkey, Sept. 2005

D. Zimmer, O. Heudi, S. Barteau: Absolute Quantitation of Monoclonal Antibodies by LC/MS, Novartis Pharma AG, Basel, Early Development Science Day, Oct. 2007

D. Zimmer: LC/MS in the Drug Development Workflow - From a DMPK Point of View, ThermoFisher DMPK Training, Basel, Nov. 2007

D. Zimmer: Quantitation in Tissues, German-Swiss Bioanalytical Forum, Basel, Apr. 2008

D. Zimmer on behalf of EBF: Survey on Metabolite Quantitation, 1st EBF Open Symposium, Barcelona, Dec. 2008

D. Zimmer: Training Seminar for Swiss BioAnalytics AG, three presentations: EBF Views on Bioanalytical Method Validation, Quantitation in Tissues and Absolute Quantitation of Monoclonal Antibodies, Birsfelden, Mar. 2009

D. Zimmer: Dried Blood Spots – A Revolution like LC-API-MS 20 years ago?, 2nd EBF Open Symposium, Barcelona, Dec. 2009

Organizer of workshop “Absolute Quantitation of Proteins – Where Are We Today?” at the “8th LC/MS Diskussionstreffen”, Wuppertal, 19/20. Apr. 2010, presentation on different types of internal standards. <http://www.lc-ms.de/information.html>

D. Zimmer on behalf of the EBF Topic Team “Dried Blood Spots (DBS): Internal Standard use with DBS”, 4th EBF Open Symposium, Barcelona, Nov. 2011

D. Zimmer: Dried Blood Spots – Convenient Method to Collect, Store and Analyze Biological Samples, BioValley Stammtisch „Biobanking“, Actelion, Allschwil, Nov. 2011

D. Zimmer on behalf of GBC A2 team: Tiered Approaches to Method Validation, DMDG Leaders Meeting, Actelion, Allschwil, May 2012

Organizer of workshop “Automatization of DBS Analysis”, presentation: Internal standard application to Dried Blood Spots – evaluation of a novel automated application system from CAMAG, Fachhochschule Nordwestschweiz, Basel, Sept. 2011
http://www.lc-ms.de/pdf/PDF2012/Invitation_DB_S_workshop_06.09.11_final.pdf

Organizer of a regulatory bioanalysis workshop at the “9th LC/MS Diskussionstreffen”, Wuppertal, 17/18. Sept. 2012, three presentations on the EMA BMV guideline
<http://www.lc-ms.de/information.html>