

Dr. Boris Mizaikoff

CURRICULUM VITAE

Section 1: Curriculum Vitae

Section 2: List of Publications



Boris Mizaikoff

April 2016

SECTION 1

Curriculum Vitae

BORIS MIZAIKOFF

Professor and Chair, Director IABC

DATA

Professional:

Institute of Analytical and Bioanalytical Chemistry (IABC)
University of Ulm
Albert-Einstein-Allee 11
89081 Ulm
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ResearchID: <http://www.researcherid.com/rid/G-9959-2013>

ORCID: <http://orcid.org/0000-0002-5583-7962>

Research Gate: https://www.researchgate.net/profile/Boris_Mizaikoff/

EDUCATION

2004 Tenure, Georgia Institute of Technology (U.S.A.)
2000 Habilitation, Analytical Chemistry, Vienna University of Technology, Institute of Analytical Chemistry (Austria)
1996 Ph.D., Analytical Chemistry, Vienna University of Technology, Institute of Analytical Chemistry (Austria)
1993 Diploma, Analytical Chemistry, Vienna University of Technology, Institute of Analytical Chemistry (Austria)

Advisors:

Prof Robert Kellner († 1997), Vienna University of Technology, Institute of Analytical Chemistry (Diploma, Ph.D.)
Prof. Matthew Hall, University of Texas (Austin), Dept. of Mechanical Engineering (Postdoctoral)

PROFESSIONAL EXPERIENCE

2013 OCE **Distinguished Visiting Professor** at CSIRO (Perth, Australia)
2013 and 2014 **Visiting Professor** at INCTAA/UNICAMP (University of Campinas, Brazil)
Fall 2007-present **Chaired Professor (W3)** and **Director of the Institute of Analytical and Bioanalytical Chemistry** at the University of Ulm, Germany; **Director of the Focused Ion Beam Center UUlM** and of the **Service Center Elemental Analysis**
2007 Declined offer for Director position of the Institute of Ecological Chemistry (IOEC) @ Helmholtz Research Center for Environmental Health, Munich, Germany
2007 Declined offer for Director position of the National Center of Sensor Research (NCSR) @ Dublin City University, Dublin, Ireland
2005-present Member of the Center for Cell and Molecular Signaling at Emory University, School of Physiology
2004-2007 Director of the Focused Ion Beam (FIB²) Center at Georgia Tech
2004-present Georgia Institute of Technology, School of Chemistry and Biochemistry, **Associate Professor (tenured)**
2000-2004 Georgia Institute of Technology, School of Chemistry and Biochemistry, **Assistant Professor** (Director of the Applied Sensors Laboratory)
2000 Habilitation at Vienna University of Technology, Institute of Analytical Chemistry, **Professor**
1997-2003 Coordination of 4 interdisciplinary, multinational **European Union Research Projects**
1997-1998 University of Texas, Dept. of Mechanical Engineering (Austin, TX), **Postdoctoral Fellow**
1996-2000 Vienna University of Technology, Institute of Analytical Chemistry, **Assistant Professor** (Director Chemical Sensors Laboratory)
1992-1996 Vienna University of Technology, Institute of Analytical Chemistry, **Research Assistant**

Ph.D. thesis completed: **27**; Diploma thesis completed: **25**; Master thesis completed: **28**

Currently in progress: **24** Ph.D., **5** Master

RESEARCH INTERESTS

Optical chemical sensors, biosensors and biomimetic sensors in the mid-infrared (3-20 μm) spectral range; quantum cascade laser based sensors; multifunctional (nano)analytical platforms; system miniaturization, integration and micro-/nanofabrication; on-chip diagnostic; focused ion beam based nanofabrication; (bio) molecular recognition architectures for separation and sensing applications; molecularly templated materials; functionalized sol-gel membranes; solid phase extraction with functionalized materials; multivariate/chemometric data evaluation; hyperspectral imaging; advanced vibrational spectroscopy in the far- and nearfield; integrated THz probes; environmental analytical chemistry; process analytical chemistry; biomedical diagnostics.

HONORS AND AWARDS

2014	<i>Fresenius-Lecturer 2014</i> by the German Chemical Society (GDCh)
2013	<i>Fellow of the Royal Society of Chemistry (RSC)</i>
2010	<i>Craver Award</i> by the Coblentz Society
2009	<i>Robert Kellner Lecture Award</i> by the Division of Analytical Chemistry, EuCheMS
2006	<i>Fellow of the American Association for the Advancement of Science (AAAS)</i>
2005	<i>Class of 1934 Outstanding Interdisciplinary Activities Award</i> by the Georgia Institute of Technology
2005	<i>Pittsburgh Conference Achievement Award</i> by the Society for Analytical Chemists of Pittsburgh
2004	<i>Fritz Feigl Award</i> by the Austrian Society of Analytical Chemistry
2004	<i>Meggens Award</i> by the Society of Applied Spectroscopy
2003	<i>Sigma Xi Outstanding Young Faculty Award</i> by the Georgia Institute of Technology
1999	<i>Pro Analytica Award</i> by the Institute of Analytical Chemistry, Vienna University of Technology
1997	<i>Erwin Schrödinger Research Award</i> by the Austrian Science Foundation
1996	<i>Mobility Award</i> by the Academic Workingparty of the Vienna University of Technology
1993	<i>GÖCH Science Award</i> by the Austrian Chemical Society

PROFESSIONAL AND SYNERGISTIC ACTIVITIES (from 1999 on)

2016-present	Editorial Advisory Board of <i>ACS Sensors</i> (American Chemical Society; ACS)
2014-present	Editorial Advisory Board of <i>Analytical Chemistry</i> (American Chemical Society; ACS)
2013-2015	Associate Editor of <i>Photonics Research</i> (The Optical Society; OSA)
2010-present	Associate Editor Europe of <i>Analyst</i> (Royal Society of Chemistry; RSC)
2007-present	International Advisory Board of <i>Analytical and Bioanalytical Chemistry</i>
2007	Chairman <i>IEEE Sensors Conference</i>
2005	Chairman <i>Gordon Research Conference on Chemical Sensors and Interfacial Design</i>
2005	Chairman <i>PRF Summer School on Chemometrics in Sensor Technology</i>
2004	Co-Chairman <i>ACS ProSpectives Conference Emerging Opportunities in Chemical Sensing and Biosensing</i>
2003-present	International Advisory Board <i>Encyclopedia of Sensors</i>
2003-present	Editorial Board <i>Sensor Letters</i>
2003-present	Associate Editor <i>IEEE Sensors Journal</i>
2003	Co-Chairman <i>Gordon Research Conference on Chemical Sensors and Interfacial Design</i>
2002-200	Co-PI NSF IGERT project: "Signals in the Sea" (granted; PD: Mark Hay, School of Biology)
2002-present	Program Committee <i>SPIE Photonics West, Biomedical Optics</i>
2002-2005	Editorial Board <i>Microchimica Acta</i>
2001-present	Program Committee <i>IEEE Sensors Conference</i>
2001-present	Permanent Committee <i>International Conference on Advanced Semiconductor Devices and Microsystems</i>
2001-present	Organizer <i>IEEE-ISA Workgroup on Chemical and Biological Sensors</i>
2001-present	Permanent Committee <i>IWA Conference on Automation in Water Quality Monitoring</i>
2000-present	Permanent Steering Committee <i>Europt(r)ode Conference Series</i>
1999-2002	Editorial Board <i>Spectroscopy Letters</i>
1999-present	Co-chairman and co-founder of the bi-annual <i>Advanced Study Course on Optical Chemical Sensors (ASCOS-Series)</i> for graduate and postgraduate students

SHORT NARRATIVE BIOGRAPHY

Dr. Boris Mizaikoff received his Ph.D. in Analytical Chemistry at the Vienna University of Technology in 1996. Heading the Chemical Sensor Laboratory (CSL), he has been responsible for numerous research projects in the field of chemical IR sensors, including several multinational projects funded by the European Union. In 1997, he has been with the University of Texas, Austin/USA as a postdoctoral fellow. In October 2000 he finalized his Habilitation (Assoc. Prof. for Analytical Chemistry) at the Vienna University of Technology. Since Fall 2000, he was faculty member at the Georgia Institute of Technology, School of Chemistry and Biochemistry, heading the Applied Sensors Laboratory (ASL). Since 2004 he was Director of the Focused Ion Beam Center (FIB² Center) at Georgia Tech, and since 2005 member of the Center for Cell and Molecular Signaling at Emory University, School of Physiology. In Fall 2007, he has joined the faculty at the University of Ulm, Germany, as a Chaired Professor and Director of the Institute of Analytical and Bioanalytical Chemistry (IABC). Today, his research interests focus on optical sensors, biosensors, and biomimetic sensors operating in the mid-infrared spectral range, applications of novel IR light sources (e.g., quantum cascade and interband cascade lasers), system miniaturization and integration based on micro- and nanofabrication, multifunctional (nano)analytical platforms (e.g., combination AFM-IR, AFM-SECM-IR, etc.), nano(bio)sensors, focused ion beam (FIB) microscopy, development of (bio)molecular recognition architectures for separation and sensing applications (e.g., molecularly templated materials), chemometric data evaluation, environmental analytical chemistry with focus on water quality monitoring, process analytical chemistry, and biomedical diagnostics. Dr. Mizaikoff is author/co-author of over 240 peer-reviewed publications, 16 patents, and 100+ plenary, keynote, and invited contributions at scientific conferences; his current h-index is 37 (Web of Science).

REVIEWER

<u>Journals:</u>	Nature Mat., Anal. Chem., J. Phys. Chem., J. for Analyt. and Bioanalyt. Chem., Sensors & Actuators, Env. Sci. Technol., JACS, J. of Lightwave Technol., Angewandte Chemie, Anal. Chim. Acta, Intern. J. Environ. Anal. Chem., IEEE Sensors, J. Appl. Phys., etc.
<u>Agencies:</u>	NIH, DOE, NSF, European Union, PRF, EPA, DFG regular panels and SBIR panels; member of the NIH Study Section on Instrumental and Systems Development

PUBLICATIONS

Patents

- | | | | |
|-----|---|-------------------------------|-------------------|
| 16. | Author(s): A. Wilk, J. C. Carter, M. P. Crisp, A. M. Manuel, S.-S. Kim, B. Mizaikoff
Title: <i>Substrate-Integrated Hollow Waveguide Sensors</i>
Patent: U.S. patent pending | No: US 20130081447 A1 | Year: 2013 |
| 15. | Author(s): J. S. Szobota, J. M. Brown, C. C. Walters, M. M. Disko, B. Mizaikoff
Title: <i>Method and Apparatus for a Mid-Infrared (MIR) System for Real Time Detection of Petroleum in Colloidal Suspensions of Sediments and Drilling Muds during Drilling Operations, Logging and Production Operations</i>
Patent: U.S. patent granted | No: US 2-12/0170023 A1 | Year: 2012 |
| 14. | Author(s): J. C. Carter, J. W. Chan, J. E. Trebes, S. M. Angel, B. Mizaikoff
Title: <i>Combined Raman and IR Fiber-Based Sensor for Gas Detection</i>
Patent: U.S. patent granted | No: US 20120105827 A1 | Year: 2012 |
| 13. | Author(s): G. Lamps, J. Yadav, B. Mizaikoff
Title: <i>Radiographic Contrast Media Capture Material</i>
Patent: PCT patent granted | No: WO 2008101166 A1 | Year: 2008 |
| 12. | Author(s): C. Kranz, B. Mizaikoff, W. Schuhmann, K. Eckhard
Title: <i>Near Field Scanning Measurement – Alternating Current – Scanning Electrochemical Microscopy Devices and Methods of Their Use</i>
Patent: PCT patent granted | No: WO 2008066779 | Year: 2008 |
| 11. | Author(s): B. Mizaikoff, H. Shin, P. Haring, D. Surawicz
Title: <i>Integrated Sensing Probes, Methods of Fabrication Thereof, and Methods of Use Thereof</i>
Patent: U.S. patent granted | No: WO 2008105888 | Year: 2008 |
| 10. | Author(s): B. Mizaikoff, C. Charlton, M. Giovannini, J. Faist
Title: <i>Thin Film Waveguides, Methods of Fabrication Thereof, and Detection Systems</i>
Patent: PCT patent granted | No: WO 2007030737 | Year: 2007 |
| 9. | Author(s): R. Weiss, B. Mizaikoff
Title: <i>Rezeptoren für Mykotoxine (Receptors for mycotoxins)</i>
Patent: PCT patent granted | No: WO 2003101580 | Year: 2003 |
| 8. | Author(s): R. Weiss, B. Mizaikoff
Title: <i>Rezeptoren für Mykotoxine (Receptors for mycotoxins)</i>
Patent: Austrian patent granted | No: A 837/2002 | Year: 2002 |
| 7. | Author(s): C. Kranz, B. Mizaikoff, A. Lugstein, E. Bertagnolli
Title: <i>Vorrichtung für die gleichzeitige Durchführung einer elektrochemischen und einer topographischen Nahfeld-Mikroskopie (Combined Scanning Electrochemical and Topographical Nearfield Microscopy)</i>
Patent: Japan, patent pending | No: 502381/2002 | Year: 2002 |
| 6. | Author(s): A. Lugstein, E. Bertagnolli, C. Kranz, B. Mizaikoff
Title: <i>Verfahren zur Herstellung einer Vorrichtung für die gleichzeitige Durchführung einer elektrochemischen und einer topographischen Nahfeld-Mikroskopie (Fabrication of Combined Scanning Electrochemical and Topographical Nearfield Microscopy Tips)</i>
Patent: European patent granted | No: 01940013.4 | Year: 2002 |
| 5. | Author(s): C. Kranz, B. Mizaikoff, A. Lugstein, E. Bertagnolli
Title: <i>Vorrichtung für die gleichzeitige Durchführung einer elektrochemischen und einer topographischen Nahfeld-Mikroskopie (Combined Scanning Electrochemical and Topographical Nearfield Microscopy)</i>
Patent: European patent granted | No: 01944719.2 | Year: 2002 |
| 4. | Author(s): A. Lugstein, E. Bertagnolli, C. Kranz, B. Mizaikoff
Title: <i>Verfahren zur Herstellung einer Vorrichtung für die gleichzeitige Durchführung einer elektrochemischen und einer topographischen Nahfeld-Mikroskopie (Fabrication of Combined Scanning Electrochemical and Topographical Nearfield Microscopy Tips)</i>
Patent: USA patent granted | No: 10/297562 | Year: 2002 |

Peer-reviewed Publications

2016 accepted or in press (16 manuscripts currently in review)

- | | | | | | | | |
|------|--|--------------|----------|---------------|--------------------------------------|--------------|------|
| 244. | Author(s): J. Izquierdo, B. Mizaikoff, C. Kranz | | | | | | |
| | Title: <i>Surface-Enhanced Infrared Spectroscopy on Boron-Doped Diamond Modified with Gold Nanoparticles for Spectroelectrochemical Analysis</i> | | | | | | |
| | Journal: Physica Status Solidi A: Applications and Materials Science | Vol.: | Accepted | DOI: | | Year: | 2016 |
| 243. | Author(s): J. Haas, B. Mizaikoff | | | | | | |
| | Title: <i>Advances in Mid-Infrared Spectroscopy for Chemical Analysis</i> | | | | | | |
| | Journal: Annual Reviews Analytical Chemistry | Vol.: | In press | DOI: | 10.1146/annurev-anchem-071015-041507 | Year: | 2016 |
| 242. | Author(s): Thomas Schädle, B. Pejčić, M. Myers, B. Mizaikoff | | | | | | |
| | Title: <i>Portable Mid-Infrared Sensor System for Monitoring CO₂ and CH₄ at High Pressure in Geosequestration Scenarios</i> | | | | | | |
| | Journal: ACS Sensors | Vol.: | In press | DOI: | 10.1021/acssensors.5b00246 | Year: | 2016 |
| 241. | Author(s): E. N. Ndunda, B. Mizaikoff | | | | | | |
| | Title: <i>Molecularly Imprinted Polymers for the Analysis and Removal of Polychlorinated Aromatic Compounds in the Environment: A Review</i> | | | | | | |
| | Journal: Analyst | Vol.: | In press | DOI: | 10.1039/c6an00293e | Year: | 2016 |
| 240. | Author(s): M. Sieger, B. Mizaikoff | | | | | | |
| | Title: <i>FEATURE: Towards On-Chip Mid-Infrared Sensors</i> | | | | | | |
| | Journal: Analytical Chemistry | Vol.: | Accepted | DOI: | | Year: | 2016 |
| 239. | Author(s): Á. I. López-Lorente, P. Wang, M. Sieger, E. V. Catalan, M. Karlsson, F. Nikolajeff, L. Österlund, B. Mizaikoff | | | | | | |
| | Title: <i>Mid-Infrared Thin-Film Diamond Waveguides Combined with Tunable Quantum Cascade Lasers for Analyzing the Secondary Structure of Proteins</i> | | | | | | |
| | Journal: Physica Status Solidi A: Applications and Materials Science | Vol.: | Accepted | DOI: | | Year: | 2016 |
| 238. | Author(s): M. Dinc, H. Basan, T. Diemant, J. Behm, M. Linden, B. Mizaikoff | | | | | | |
| | Title: <i>Inhibitor-Assisted Synthesis of Silica-Core Microbeads with Pepsin-Imprinted Nanoshells</i> | | | | | | |
| | Journal: Journal of Materials Chemistry B | Vol.: | Accepted | DOI: | | Year: | 2016 |
| 237. | Author(s): B. Abt, A. Hartmann, A. Pasquarelli, S. Strehle, B. Mizaikoff, C. Kranz | | | | | | |
| | Title: <i>Electrochemical Determination of Sulphur-containing Pharmaceuticals Using Boron-doped Diamond Electrodes</i> | | | | | | |
| | Journal: Electroanalysis | Vol.: | In press | DOI: | 10.1002/elan.201501150 | Year: | 2016 |
| 236. | Author(s): M. Sieger, B. Mizaikoff | | | | | | |
| | Title: <i>Optimizing the Design of GaAs/AlGaAs Thin-Film Waveguides for Integrated Mid-Infrared Sensors</i> | | | | | | |
| | Journal: Photonics Research | Vol.: | Accepted | DOI: | 10.1364/PR.99.099999 | Year: | 2016 |
| 235. | Author(s): F. Rauh, B. Mizaikoff | | | | | | |
| | Title: <i>Simultaneous Determination of Monoatomic Ions via Infrared Attenuated Total Reflection Spectroscopy in Aqueous Solution at Different Temperatures</i> | | | | | | |
| | Journal: Applied Spectroscopy | Vol.: | 408 | Pages: | 2875-2889 | Year: | 2016 |
| 234. | Author(s): Á. I. López-Lorente, B. Mizaikoff | | | | | | |
| | Title: <i>Recent Advances on the Characterization of Nanoparticles using Infrared Spectroscopy</i> | | | | | | |
| | Journal: Trends in Analytical Chemistry | Vol.: | In press | DOI: | 10.1016/j.trac.2016.01.012 | Year: | 2016 |
| 233. | Author(s): Thomas Schädle, B. Mizaikoff | | | | | | |
| | Title: <i>Selecting the Right Tool: A Comparison of the Analytical Performance of Infrared Attenuated Total Reflection Accessories</i> | | | | | | |
| | Journal: Applied Spectroscopy | Vol.: | In press | DOI: | 10.1177/0003702816641574 | Year: | 2016 |

2016

232. **Author(s):** Á. I. López-Lorente, B. Mizaikoff
Title: *Mid-Infrared Spectroscopy for Protein Analysis: Potential and Challenges*
Journal: Analytical and Bioanalytical Chemistry **Vol.:** 408 **Pages:** 2875-2889 **Year:** 2016
231. **Author(s):** R. Lu, B. Mizaikoff, W.-W. Li, A. Katzir, Y. Raichlin, G.-P. Sheng, H.-Q. Yu
Title: *High Sensitivity IR-ATR Sensors for In-situ Multi-component Detection of Volatile Organic Compounds*
Journal: Nature Protocols **Vol.:** 11 **Pages:** 377-386 **Year:** 2016
230. **Author(s):** M. Sieger, J. Haas, M. Jetter, P. Michler, M. Godejohann, B. Mizaikoff
Title: *A Mid-Infrared Spectroscopy Platform based on GaAs/AlGaAs Thin-film Waveguides and Quantum Cascade Lasers*
Journal: Analytical Chemistry **Vol.:** 88 **Pages:** 2558-2562 **Year:** 2016
229. **Author(s):** F. Rauh, B. Mizaikoff
Title: Simultaneous quantification of ion pairs in water via infrared attenuated total reflection spectroscopy
Journal: Analytical Methods **Vol.:** 8 **Pages:** 2164-2169 **Year:** 2016
228. **Author(s):** E. N. Ndunda, V. O. Madadi, B. Mizaikoff
Title: *Development of an Extraction and Clean-up Method for Rapid Analysis of Six Indicator PCBs in Soil, Sediment, and Water*
Journal: Environmental Science: Processes & Impacts **Vol.:** 17 **Pages:** 2101-2109 **Year:** 2015
227. **Author(s):** W. Chen, X.-Y. Liu, L.-F. Wang, H.-Q. Yu, B. Mizaikoff
Title: *Probing Membrane Fouling via Infrared Attenuated Total Reflection Mapping Coupled with Multivariate Curve Resolution*
Journal: ChemPhysChem **Vol.:** 17 **Pages:** 358-363 **Year:** 2016
226. **Author(s):** N. Hibst, P. Knittel, J. Biskupek, C. Kranz, B. Mizaikoff, S. Strehle
Title: *The Mechanisms of Platinum-Catalyzed Silicon Nanowire Growth*
Journal: Semiconductor Science and Technology **Vol.:** 31 **Pages:** 025005-7 **Year:** 2016
225. **Author(s):** N. Karaseva, T. Ermolaeva, B. Mizaikoff
Title: *Piezoelectric Sensors using Molecularly Imprinted Nanospheres for the Detection of Antibiotics*
Journal: Sensors & Actuators B: Chemical **Vol.:** 225 **Pages:** 199-208 **Year:** 2015
224. **Author(s):** P. Zahedi, M. Ziaee, M. Abdouss, A. Farazin, B. Mizaikoff
Title: Biomacromolecule Template-Based Molecularly Imprinted Polymers with an Emphasis on their Synthesis Strategies: A Review
Journal: Polymers Advanced Technologies **Vol.:** **DOI:** 10.1002/pat.3754 **Year:** 2016
223. **Author(s):** Thomas Schädle, B. Pejčić, B. Mizaikoff
Title: *Monitoring Dissolved Greenhouse Gases*
Journal: Analytical Methods **Vol.:** 8 **Pages:** 756-762 **Year:** 2016
222. **Author(s):** M. Sieger, B. Mizaikoff
Title: *Dünnschicht-Lichtwellenleiter für das mittlere Infrarot*
Journal: Nachrichten aus der Chemie **Vol.:** 64 **Pages:** 127-130 **Year:** 2016
221. **Author(s):** A. Steinbach, T. Sandner, B. Mizaikoff, S. Strehle
Title: *Gas Phase Silanization for Silicon Nanowire Sensors and Other Lab-on-a-chip Systems*
Journal: Physica Status Solidi C: Current Topics in Solid State Physics **Vol.:** 4 **Pages:** **Year:** 2016

2015

220. **Author(s):** R. Stach, B. Pejčić, E. Crooke, M. Myers, B. Mizaikoff
Title: *A Mid-Infrared Spectroscopic Method for the Identification and Quantification of Dissolved Oil Components in Marine Environments*
Journal: Analytical Chemistry **Vol.:** 87 **Pages:** 12306-12312 **Year:** 2015
219. **Author(s):** B. Pluhar, B. Mizaikoff
Title: Advanced Evaluation Strategies for Protein-Imprinted Polymer Nanobeads
Journal: Macromolecular Bioscience **Vol.:** 15 **Pages:** 1507-1511 **Year:** 2015

- 218. Author(s):** E. N. Ndunda, V. O. Madadi, B. Mizaikoff
Title: *Synthesis of Stationary Phases that Provide Group Recognition for Polychlorinated Biphenyls by Porogenic Fragment Template Imprinting*
Journal: Journal of Separation Science **Vol.:** 39 **Pages:** 939-946 **Year:** 2015
- 217. Author(s):** J. F. da Silveira Petrucic, A. Wilk, A. A. Cardoso, B. Mizaikoff
Title: *Online Analysis of H₂S and SO₂ via Advanced Mid-Infrared Gas Sensors*
Journal: Analytical Chemistry **Vol.:** 87 **Pages:** 9605-9611 **Year:** 2015
- 216. Author(s):** J. F. da Silveira Petrucic, A. A. Cardoso, A. Wilk, V. Kokoric, B. Mizaikoff
Title: *iCONVERT: An Integrated Device for the UV-Assisted Determination of H₂S via Mid-Infrared Gas Sensors*
Journal: Analytical Chemistry **Vol.:** 87 **Pages:** 9580-9583 **Year:** 2015
- 215. Author(s):** W. Lei, R.J. Gu, J. Antoszewski, J. Dell, G. Neusser, M. Sieger, B. Mizaikoff, L. Faraone
Title: *MBE Growth of Mid-wave Infrared HgCdTe Layers on GaSb Alternative Substrates*
Journal: Journal of Electronic Materials **Vol.:** 44 **Pages:** 3180-3187 **Year:** 2015
- 214. Author(s):** H. John, F. Breyer, C. Schmidt, B. Mizaikoff, F. Worek, H. Thiermann
Title: *Small Scale Purification of Butyrylcholinesterase from Human Plasma for Implementation of a μ LC-UV/ESI MS/MS Method to Detect its Organophosphorus Adducts*
Journal: Drug Testing and Analysis **Vol.:** 7 **Pages:** 947-956 **Year:** 2015
- 213. Author(s):** B. Pluhar, U. Ziener, B. Mizaikoff
Title: *Binding Performance of Pepsin Surface-Imprinted Polymer Particles in Protein Mixtures*
Journal: Journal of Materials Chemistry B **Vol.:** 3 **Pages:** 6248-6254 **Year:** 2015
- 212. Author(s):** E. N. Ndunda, B. Mizaikoff
Title: *Multi-Walled Carbon Nanotubes: Innovative Sorbents for Pre-Concentration of Polychlorinated Biphenyls in Aqueous Environments*
Journal: Analytical Methods **Vol.:** 7 **Pages:** 8034-8040 **Year:** 2015
- 211. Author(s):** P. Wang, W. Bohr, M. Otto, K. M. Danzer, B. Mizaikoff
Title: *Quantifying Amyloid Fibrils in Protein Mixtures via Infrared Attenuated Total Reflection Spectroscopy*
Journal: Analytical and Bioanalytical Chemistry **Vol.:** 40 **Pages:** 4015-4021 **Year:** 2015
- 210. Author(s):** V. Kokoric, A. Wilk, B. Mizaikoff
Title: *iPRECON: An Integrated Preconcentrator for the Enrichment of Volatile Organics in Exhaled Breath*
Journal: Analytical Methods **Vol.:** 7 **Pages:** 3664-3667 **Year:** 2015
- 209. Author(s):** M. Madel, G. Neusser, U. Simon, B. Mizaikoff, K. Thonke
Title: *c-plane ZnO on a-plane sapphire: Inclusion of (1101) domains*
Journal: Journal of Crystal Growth **Vol.:** 419 **Pages:** 128-132 **Year:** 2015
- 208. Author(s):** R. Lu, W.-W. Li, A. Katzir, Y. Raichlin, H.-Q. Yu, B. Mizaikoff
Title: *Probing the Secondary Structure of Bovine Serum Albumin during Heat-Induced Denaturation Using Mid-Infrared Fiberoptic Sensors*
Journal: Analyst **Vol.:** 140 **Pages:** 765-770 **Year:** 2015
- 207. Author(s):** D. McMullin, B. Mizaikoff, R. Krska
Title: *Advancements in the Determination of Fungal Derived Contaminations in Food Crops by IR Spectroscopic Approaches*
Journal: Analytical and Bioanalytical Chemistry **Vol.:** 407 **Pages:** 653-660 **Year:** 2015
- 206. Author(s):** N. Abdelrehim El Gohary, A. Madbouly, R. Mohamed El Nashar, B. Mizaikoff
Title: *Synthesis and Application of a Molecularly Imprinted Polymer for the Voltammetric Determination of Famciclovir*
Journal: Biosensors & Bioelectronics **Vol.:** 65 **Pages:** 108-114 **Year:** 2015
- 205. Author(s):** A. Eifert, B. Mizaikoff, C. Kranz
Title: *Advanced Fabrication Process for Combined Atomic Force-Scanning Electrochemical Microscopy (AFM-SECM) Probes*
Journal: Micron **Vol.:** 68 **Pages:** 27-35 **Year:** 2015

2014

- 204. Author(s):** C. M. Müller, B. Pejčic, L. Esteban, C. Delle Piane, M. Raven, B. Mizaikoff
Title: *Infrared Attenuated Total Reflectance Spectroscopy: An Innovative Strategy for Analyzing Mineral Components in Energy Relevant Systems*
Journal: Scientific Reports **Vol.:** 4 **Pages:** 6764: 1-11 **Year:** 2014

- 203. Author(s):** N. Hibst, P. Knittel, C. Kranz, B. Mizaikoff, S. Strehle
Title: *Beam-Deposited Platinum as Versatile Catalyst for Bottom-Up Silicon Nanowire Synthesis*
Journal: Applied Physics Letters **Vol.:** 105 **Pages:** 153110 **Year:** 2014
- 202. Author(s):** X. Wang, M. Karlsson, M. Sieger, L. Oesterlund, F. Nikolajeff, B. Mizaikoff
Title: *Diamonds are a Spectroscopist's Best Friend: Thin-Film Diamond Mid-Infrared Waveguides for Advanced Chem/Bio Sensors*
Journal: Analytical Chemistry **Vol.:** 86 **Pages:** 8136–8141 **Year:** 2014
- 201. Author(s):** T. Schaedle, B. Pejicic, M. Myers, B. Mizaikoff
Title: *Fingerprinting Oils in Water via their Dissolved VOC Pattern using Mid-Infrared Sensors*
Journal: Analytical Chemistry **Vol.:** 86 **Pages:** 9512–9517 **Year:** 2014
- 200. Author(s):** L. L. Kegel, S.-S. Kim, B. Mizaikoff, C. Kranz, K. S. Booksh
Title: *Position Dependent Plasmonic Interaction Between a Single Nanoparticle and a Nanohole Array*
Journal: Plasmonics **Vol.:** 9 **Pages:** 1229–1237 **Year:** 2014
- 199. Author(s):** P. R. Fortes, J. F. S. Petrucci, A. Wilk, A. A. Cardoso, I. M. Raimundo Jr., B. Mizaikoff
Title: *Optimized Design of Substrate-Integrated Hollow Waveguides for Mid-Infrared Gas Analyzers*
Journal: Journal of Optics **Vol.:** 16 **Pages:** 094006 **Year:** 2014
- 198. Author(s):** F. Rauh, M. Schwenk, B. Pejicic, M. Myers, K.-B. Ho, L. Stalker, B. Mizaikoff
Title: *A Mid-Infrared Sensor for the Determination of Perfluorocarbon-Based Compounds in Aquatic Systems for Geosequestration Purposes*
Journal: Talanta **Vol.:** 130 **Pages:** 527–535 **Year:** 2014
- 197. Author(s):** M. Lämmerhofer, J. Popp, K. Leopold, S. He, W. Nau, C. Kranz, J. W. Einax, B. Mizaikoff
Title: *Trendbericht: Analytische Chemie 2012/2013*
Journal: Nachrichten aus der Chemie **Vol.:** 62 **Page:** 407–414 **Year:** 2014
- 196. Author(s):** D. Perez-Guaita, V. Kokoric, A. Wilk, S. Garrigues, B. Mizaikoff
Title: *Determination of Isoprene in Human Breath using Substrate-Integrated Hollow Waveguide Mid-Infrared Sensors*
Journal: Journal of Breath Research **Vol.:** 8 **Page:** 026003 **Year:** 2014
- 195. Author(s):** Á. I. López-Lorente, M. Valcarcel, B. Mizaikoff
Title: *Continuous Flow Synthesis and Characterization of Tailor-Made Bare Gold Nanoparticles for use in SERS*
Journal: Microchimica Acta **Vol.:** 181 **Page:** 1101–11–8 **Year:** 2014
- 194. Author(s):** J. J. R. Rohwedder, C. Pasquini, P. R. Fortes, I. M. Raimundo Jr., A. Wilk, B. Mizaikoff
Title: *iHWG-μNIR: A Miniaturised Near-Infrared Gas Sensor Based on Substrate-Integrated Hollow Waveguides Coupled to a Micro-NIR-Spectrophotometer*
Journal: Analyst **Vol.:** 139 **Page:** 3572–3576 **Year:** 2014
- 193. Author(s):** J. P. Korbmayer, C. Michel, D. Neubauer, K. Thompson, B. Mizaikoff, M. Frick, P. Dietl, O. H. Wittekindt
Title: *Amiloride-sensitive fluid resorption in NCI-H441 lung epithelia depends on an apical Cl⁻ conductance*
Journal: Physiological Reports **Vol.:** 2 **Page:** e00201 **Year:** 2014
- 192. Author(s):** A. Eifert, P. Langenwalter, J. Higl, M. Lindén, C. Nebel, B. Mizaikoff, C. Kranz
Title: *Focused ion beam (FIB)-induced changes in the electrochemical behavior of boron-doped diamond (BDD) electrodes*
Journal: Electrochimica Acta **Vol.:** 130 **Page:** 418–425 **Year:** 2014
- 191. Author(s):** Á. I. López-Lorente, M. Sieger, M. Valcarcel, B. Mizaikoff
Title: *Infrared Attenuated Total Reflection Spectroscopy as a Tool for the Characterization of Gold Nanoparticles in Solution*
Journal: Analytical Chemistry **Vol.:** 86 **Page:** 783–789 **Year:** 2014
- 190. Author(s):** J. F. da Silveira Petrucci, P. R. Fortes, V. Kokoric, A. Wilk, I. M. Raimundo Jr., A. A. Cardoso, B. Mizaikoff
Title: *Monitoring Hydrogen Sulfide via Substrate-Integrated Hollow Waveguide Mid-Infrared Sensors in Real-Time*
Journal: Analyst **Vol.:** 139 **Page:** 198–203 **Year:** 2014
- 189. Author(s):** Á. I. López-Lorente, B. M. Simonet, M. Valcarcel, S. Eppler, R. Schindl, C. Kranz, B. Mizaikoff
Title: *Characterization of Stainless Steel Assisted Bare Gold Nanoparticles and their Analytical Potential*
Journal: Talanta **Vol.:** 118 **Page:** 321–327 **Year:** 2014

2013

- 188. Author(s):** A. Wilk, J. C. Carter, M. Chrisp, A. M. Manuel, P. Mirkarimi, J. B. Alameda, B. Mizaikoff
Title: *Substrate-Integrated Hollow Waveguides: A New Level of Integration in Mid-Infrared Gas Sensing*
Journal: Analytical Chemistry **Vol.:** 85 **Page:** 11205–11210 **Year:** 2013

187. **Author(s):** X. Wang, J. Antoszewski, G. Putrino, W. Lei, L. Faraone, B. Mizaikoff
Title: *Mercury-Cadmium-Telluride Waveguides – A Novel Strategy for On-Chip Mid-Infrared Sensors*
Journal: Analytical Chemistry **Vol.:** 85 **Page:** 10648–10652 **Year:** 2013
186. **Author(s):** J. F. da Silveira Petrucic, P. R. Fortes, V. Kokoric, A. Wilk, I. M. Raimundo Jr., A. A. Cardoso, B. Mizaikoff
Title: *Real-Time Monitoring of Ozone in Air Using Substrate-Integrated Hollow Waveguide Mid-Infrared Sensors*
Journal: Scientific Reports **Vol.:** 3 **Page:** 3174: 1-5 **Year:** 2013
185. **Author(s):** B. Mizaikoff
Title: *Waveguide-Enhanced Mid-Infrared Chem/Bio Sensors*
Journal: Chemical Society Reviews **Vol.:** 42 **Page:** 8683-8699 **Year:** 2013
184. **Author(s):** D. Neubauer, J. Scharpf, A. Pasquarelli, B. Mizaikoff, C. Kranz
Title: *Combined In-Situ Atomic Force Microscopy and Infrared Attenuated Total Reflection Spectroelectrochemistry*
Journal: Analyst **Vol.:** 138 **Page:** 6746–6752 **Year:** 2013
183. **Author(s):** R. Lu, B. Mizaikoff, W.-W. Li, C. Qian, A. Katzir, Y. Raichlin, G.-P. Sheng, H.-Q. Yu
Title: *Determination of Chlorinated Hydrocarbons in Water Using Highly Sensitive Mid-Infrared Sensor Technology*
Journal: Scientific Reports **Vol.:** 3 **Page:** 2525: 1-6 **Year:** 2013
182. **Author(s):** G. S. Lorite, R. Janissen, J. H. Clerici, C. M. Rodrigues, J. P. Tomaz, B. Mizaikoff, C. Kranz, A. Alves de Souza, M. A. Cotta
Title: *Surface Physicochemical Properties at the Micro and Nano Length Scales: Role on Bacterial Adhesion and Xylella Fastidiosa Biofilm Development*
Journal: PLOS 1 **Vol.:** 8 **Page:** e75247 **Year:** 2013
181. **Author(s):** T. Schädle, A. Eifert, C. Kranz, Y. Raichlin, A. Katzir, B. Mizaikoff
Title: *Mid-Infrared Planar Silver Halide Waveguides with Integrated Grating Couplers*
Journal: Applied Spectroscopy **Vol.:** 67 **Page:** 1057-1063 **Year:** 2013
180. **Author(s):** B. Pluhar, U. Ziener, B. Mizaikoff
Title: *Surface Imprinting of Pepsin via Miniemulsion Polymerization*
Journal: Journal of Materials Chemistry B **Vol.:** 1 **Page:** 5489-5495 **Year:** 2013
179. **Author(s):** D. Perez-Guaita, A. Wilk, J. Kuligowski, G. Quintás, M. de la Guardia, B. Mizaikoff
Title: *Improving the performance of hollow waveguide based infrared gas sensors via tailored chemometrics*
Journal: Analytical and Bioanalytical Chemistry **Vol.:** 405 **Page:** 8223-8232 **Year:** 2013
178. **Author(s):** J. O'Mahony, M. Moloney, M. McCormack, I. A. Nicholls, B. Mizaikoff, M. Danaher
Title: *Design and Implementation of an Imprinted Material for the Extraction of the Endocrine Disruptor Bisphenol A from Milk*
Journal: Journal of Chromatography B **Vol.:** 931 **Page:** 164-169 **Year:** 2013
177. **Author(s):** Á. I. López-Lorente, B. M. Simonet, M. Valcarcel, B. Mizaikoff
Title: *Bare gold nanoparticles mediated surface-enhanced Raman spectroscopic determination and quantification of carboxylated single-walled carbon nanotubes*
Journal: Analytica Chimica Acta **Vol.:** 788 **Page:** 122-128 **Year:** 2013
176. **Author(s):** D. Neubauer, J. Korbmacher, M. Frick, J. Kiss, M. Timmler, P. Dietl, O. Wittekindt, B. Mizaikoff
Title: *Deuterium Oxide Dilution: A Novel Method to Study Apical Water Layers and Transepithelial Water Transport*
Journal: Analytical Chemistry **Vol.:** 85 **Page:** 4247-4250 **Year:** 2013
175. **Author(s):** F. Seichter, A. Wilk, K. Wörle, S.-S. Kim, J. A. Vogt, U. Wachter, P. Radermacher, B. Mizaikoff
Title: *Multivariate Determination of $^{13}\text{CO}_2/^{12}\text{CO}_2$ Ratios in Exhaled Mouse Breath with Mid-Infrared Hollow Waveguide Gas Sensors*
Journal: Analytical and Bioanalytical Chemistry **Vol.:** 405 **Page:** 4945-4951 **Year:** 2013
174. **Author(s):** M. Sieger, F. Balluff, X. Wang, S.-S. Kim, L. Leidner, G. Gauglitz, B. Mizaikoff
Title: *On-Chip Integrated Mid-Infrared GaAs/AlGaAs Mach-Zehnder Interferometer*
Journal: Analytical Chemistry **Vol.:** 85 **Page:** 3050-3052 **Year:** 2013
173. **Author(s):** R. Lu, G. Sheng, W. Li, H. Yu, Y. Raichlin, A. Katzir, B. Mizaikoff
Title: *IR-ATR Chemical Sensors Based on Ethylene/Propylene Copolymer Coated Planar Silver Halide Waveguides for In-Situ and Simultaneous Detection of Multiple Organic Contaminants in Water*
Journal: Angewandte Chemie Int. Ed. **Vol.:** 52 **Page:** 2265-2268 **Year:** 2013
172. **Author(s):** K. Wörle, F. Seichter, A. Wilk, C. Armacost, T. Day, M. Godejohann, U. Wachter, J. Vogt, P. Radermacher, B. Mizaikoff
Title: *Breath Analysis with Broadly Tunable Quantum Cascade Lasers*
Journal: Analytical Chemistry **Vol.:** 85 **Page:** 2697-2702 **Year:** 2013

171. **Author(s):** E. Hecht, A. Liedert, A. Ignatius, B. Mizaikoff, C. Kranz
Title: *Local detection of mechanically induced ATP release from bone cells with ATP microbiosensors*
Journal: Biosensors & Bioelectronics **Vol.:** 44 **Page:** 27-33 **Year:** 2013
170. **Author(s):** B. Pejic, L. Boyd, M. Myers, A. Ross, Y. Raichlin, A. Katzir, R. Lu, B. Mizaikoff
Title: *Monocyclic and Polycyclic Aromatic Hydrocarbon Quantification of Geochemical Fluids Using Mid-Infrared Attenuated Total Reflection Sensors*
Journal: Organic Geochemistry **Vol.:** 55 **Page:** 63-71 **Year:** 2013
169. **Author(s):** M. Schivo, F. Seichter, A. A. Aksenov, A. Pasamontes, D. J. Peirano, B. Mizaikoff, N. J. Kenyon, C. E. Davis
Title: *Mobile Instrumentation Platform to Distinguish Airway Disorders*
Journal: Journal of Breath Research **Vol.:** 7 **Page:** 017113/9 **Year:** 2013
168. **Author(s):** G. S. Lorite, A. A. de Souza, D. Neubauer, B. Mizaikoff, C. Kranz, M. A. Cotta
Title: *On the role of Extracellular polymeric substances during early stages of Xylella fastidiosa biofilm formation*
Journal: Colloids and Surfaces B: Biointerfaces **Vol.:** 102 **Page:** 519-525 **Year:** 2013

2012

167. **Author(s):** A. Eifert, W. Smirnov, S. Frittmann, C. Nebel, B. Mizaikoff, C. Kranz
Title: *Atomic Force Microscopy Probes with Integrated Boron Doped Diamond Electrodes: Fabrication and Application*
Journal: Electrochemistry Communications **Vol.:** 25 **Page:** 30-34 **Year:** 2012
166. **Author(s):** E. Hecht, P. Knittel, E. Felder, P. Dietl, B. Mizaikoff, C. Kranz
Title: *Combining Atomic Force - Fluorescence Microscopy with a Stretching Device for Analyzing Mechanotransduction Processes at Living Cells*
Journal: Analyst **Vol.:** 137 **Page:** 5208-5214 **Year:** 2012
165. **Author(s):** C. Villinger, H. Gregorius, C. Kranz, K. Höhn, C. Münzberg, G. von Wichert, B. Mizaikoff, G. Wanner, P. Walther
Title: *FIB/SEM-tomography with TEM-like resolution for 3D imaging of high pressure frozen cells*
Journal: Histochemistry and Cell Biology **Vol.:** 138 **Page:** 549-556 **Year:** 2012
164. **Author(s):** O. Esteban, A. González-Cano, B. Mizaikoff, N. Díaz-Herrera, M.-C. Navarrete
Title: *Generation of Surface Plasmons at Waveguide Surfaces in the Mid-Infrared Region*
Journal: Plasmonics **Vol.:** 7 **Page:** 647-652 **Year:** 2012
163. **Author(s):** N. Menegazzo, C. Kranz, B. Mizaikoff
Title: *Investigation of the Anion Uptake Properties of Cathodically Electropolymerized Poly(4-vinylpyridine) Membranes*
Journal: New Journal of Chemistry **Vol.:** 36 **Page:** 2460-2466 **Year:** 2012
162. **Author(s):** F. Meier, B. Schott, D. Riedel, B. Mizaikoff
Title: *Computational and Experimental Study on the Influence of the Porogen on the Selectivity of 4-Nitrophenol MIPs*
Journal: Analytica Chimica Acta **Vol.:** 744 **Page:** 68-74 **Year:** 2012
161. **Author(s):** F. Meier, S. M. Elbert, B. Mizaikoff
Title: *A Novel Approach for the Direct Determination of Residual Template in Molecularly Imprinted Polymer Matrices*
Journal: Analytical Methods **Vol.:** 4 **Page:** 2755-2758 **Year:** 2012
160. **Author(s):** E. Hecht, K. Thompson, M. Frick, O. Wittekindt, P. Dietl, B. Mizaikoff, C. Kranz
Title: *Combined Atomic Force Microscopy – Fluorescence Microscopy: Analyzing Exocytosis at Alveolar Type II (AT II) Cells*
Journal: Analytical Chemistry **Vol.:** 84 **Page:** 5716-5722 **Year:** 2012
159. **Author(s):** S. Eppler, M. Stegmaier, F. Meier, B. Mizaikoff
Title: *A Novel Extraction Device for Efficient Clean-Up of Molecularly Imprinted Polymers*
Journal: Analytical Methods **Vol.:** 4 **Page:** 2296-2299 **Year:** 2012
158. **Author(s):** S. Eppler, T. Schröder, J. Friedle, S. Michl, W. Dangel, B. Mizaikoff
Title: *A Strategy for High-Throughput Screening of Ligands Suitable for Molecular Imprinting of Proteins*
Journal: Biosens. & Bioelectr. **Vol.:** 35 **Page:** 27-32 **Year:** 2012
157. **Author(s):** M. Lämmerhofer, J. A.C. Broekaert, J. Popp, B. Lendl, K. Leopold, F. W. Scheller, A. Yarman, S. Schumacher, N. Plumeré,
A. Hennig, W. Nau, C. Kranz, J. W. Einax, B. Mizaikoff
Title: *Trendbericht: Analytische Chemie 2010/2011*
Journal: Nachrichten aus der Chemie **Vol.:** 60 **Page:** 406-420 **Year:** 2012
156. **Author(s):** X. Wang, S.-S. Kim, R. Roßbach, M. Jetter, P. Michler, B. Mizaikoff
Title: *Ultra-Sensitive Mid-Infrared Evanescent Field Sensors Combining Thin-Film Strip Waveguides with Quantum Cascade Lasers*
Journal: Analyst **Vol.:** 137 **Page:** 2322-2327 **Year:** 2012

155. **Author(s):** Y. Luzinova, B. Zdyrko, I. Luzinov, B. Mizaikoff
Title: *In-situ Trace Analysis of Oil in Water with Mid-Infrared Fiberoptic Chemical Sensors*
Journal: Anal. Chem. **Vol.:** 84 **Page:** 1274-1280 **Year:** 2012
154. **Author(s):** C. Müller, A. Molinelli, M. Karlowatz, A. Aleksandrov, T. Orlando, B. Mizaikoff
Title: *Infrared Attenuated Total Reflection Spectroscopy of Quartz and Silica Micro- and Nanoparticulate Films*
Journal: J. Phys. Chem. **Vol.:** 116 **Page:** 37-43 **Year:** 2012
153. **Author(s):** Y. Luzinova, B. Zdyrko, I. Luzinov, B. Mizaikoff
Title: *Detecting Trace Amounts of Water in Hydrocarbon Matrices with Infrared Fiberoptic Evanescent Field Sensors*
Journal: Analyst **Vol.:** 137 **Page:** 333-341 **Year:** 2012
152. **Author(s):** A. Wilk, F. Seichter, S.-S. Kim, E. Tütüncü, J. A. Vogt, U. Wachter, P. Radermacher, B. Mizaikoff
Title: *Toward the Quantification of the $^{13}\text{CO}_2/^{12}\text{CO}_2$ Ratio in Exhaled Mouse Breath With Mid-Infrared Hollow Waveguide Gas Sensors*
Journal: Anal. and Bioanal. Chem. **Vol.:** 402 **Page:** 397-404 **Year:** 2012
151. **Author(s):** F. Rauh, B. Mizaikoff
Title: *Spectroscopic methods in gas hydrate research*
Journal: Anal. and Bioanal. Chem. **Vol.:** 402 **Page:** 163-173 **Year:** 2012

2011

150. **Author(s):** C. S. Riccardi, D. W. Hess, B. Mizaikoff
Title: *Surface-modified ZnSe Waveguides for Label-free Infrared Attenuated Total Reflection Detection of DNA Hybridization*
Journal: Analyst **Vol.:** 136 **Page:** 4906-4911 **Year:** 2011
149. **Author(s):** C. M. Frey, F. Luxenburger, S. Droege, V. Mackowiak, B. Mizaikoff
Title: *Near Infrared Hollow Waveguide Gas Sensors*
Journal: Appl. Spectrosc. **Vol.:** 65 **Page:** 1269-1274 **Year:** 2011
148. **Author(s):** Y. Luzinova, G. T. Dobbs, Y. Raichlin, A. Katzir, B. Mizaikoff
Title: *Infrared Spectroscopic Monitoring of Surface Effects during Gas Hydrate Formation in the Presence of Detergents*
Journal: Chemical Engineering Science **Vol.:** 66 **Page:** 5497-5503 **Year:** 2011
147. **Author(s):** C. Young, N. Menegazzo, A. E. Riley, C. H. Brons, Frank P. DiSanzo, J. L. Givens, J. L. Martin, M. M. Disko, B. Mizaikoff
Title: *Infrared Hollow Waveguide Sensors for Simultaneous Gas Phase Detection of Benzene, Toluene, and Xylenes in Field Environments*
Journal: Anal. Chem. **Vol.:** 83 **Page:** 6141-6147 **Year:** 2011
146. **Author(s):** L. Padhye, Y. Luzinova, M. Cho, B. Mizaikoff, J. Kim, C-H. Huang
Title: *PolyDADMAC and Dimethylamine as Precursors of N-Nitrosodimethylamine during Ozonation: Reaction Kinetics and Mechanisms*
Journal: Environ. Sci. Technol. **Vol.:** 45 **Page:** 4353-4359 **Year:** 2011
145. **Author(s):** S. G. Patterson, C. W. Bayer, R. J. Hendry, N. Sellers, K. S. Lee, B. Vidakovic, B. Mizaikoff, S. G. A. Gabram-Mendola
Title: *Breath Analysis by Mass Spectrometry: A new Tool for Breast Cancer (BC) Detection?*
Journal: American Surgeon **Vol.:** 77 **Page:** 747-751 **Year:** 2011
144. **Author(s):** S. Truax, K. S. Demirci, L. A. Beardslee, Y. Luzinova, A. Hierlemann, B. Mizaikoff, O. Brand
Title: *Mass-sensitive Detection of Gas-Phase Volatile Organics Using Disk Microresonators*
Journal: Anal. Chem. **Vol.:** 83 **Page:** 3305-3311 **Year:** 2011
143. **Author(s):** G. S. Lorite, C. M. Rodrigues, A. A. de Souza, C. Kranz, B. Mizaikoff, M. A. Cotta
Title: *The Role of Conditioning Film Formation and Surface Chemical Changes on Xylella Fastidiosa Adhesion and Biofilm Evolution*
Journal: J. of Colloid and Interface Science **Vol.:** 359 **Page:** 289-295 **Year:** 2011
142. **Author(s):** Y. Luzinova, G. T. Dobbs, L. Lapham, J. P. Chanton, B. Mizaikoff
Title: *Detection of Cold Seep Derived Authigenic Carbonates with Infrared Spectroscopy*
Journal: Marine Chemistry **Vol.:** 125 **Page:** 8-18 **Year:** 2011
141. **Author(s):** N. Menegazzo, M. Kahn, R. Berghauser, W. Waldhauser, B. Mizaikoff
Title: *Nitrogen-doped Diamond-like Carbon as Optically Transparent Electrode for Infrared Attenuated Total Reflection Spectroelectrochemistry*
Journal: Analyst **Vol.:** 136 **Page:** 1831-1839 **Year:** 2011

- 140. Author(s):** E. Hecht, O. H. Wittekindt, S. M. Usmani, S. Albrecht, P. Dietl, B. Mizaikoff, C. Kranz
Title: *Atomic Force Microscopy of Microvillous Cell Surface Dynamics at Fixed and Living Alveolar Type II Cells*
Journal: Anal. and Bioanal. Chem. **Vol.:** 399 **Page:** 2369-2378 **Year:** 2011

2010

- 139. Author(s):** A. Z. Simões, E. C. Aguiar, C. S. Riccardi, E. Longo, J. A. Varela, B. Mizaikoff
Title: *Effect of Oxidizing Atmosphere on Ferroelectric and Piezoelectric Response of $\text{CaBi}_2\text{Nb}_2\text{O}_9$ Thin Films*
Journal: Mat. Chem. Phys. **Vol.:** 124 **Page:** 894-899 **Year:** 2010
- 138. Author(s):** L. A. Beardslee, K. S. Demirci, Y. Luzinova, B. Mizaikoff, S. M. Heinrich, F. Josse, O. Brand
Title: *Liquid-Phase Chemical Sensing Using Lateral Mode Resonant Cantilevers*
Journal: Anal. Chem. **Vol.:** 82 **Page:** 7542-7549 **Year:** 2010
- 137. Author(s):** J. Wiedemair, N. Menegazzo, J. Pikarsky, K. S. Booksh, B. Mizaikoff, C. Kranz
Title: *Novel Electrode Materials Based on Ion Beam Induced Deposition of Platinum Carbon Composites*
Journal: Electrochim. Acta **Vol.:** 55 **Page:** 5725-5732 **Year:** 2010
- 136. Author(s):** J. Wiedemair, J.-S. Moon, F. Reinauer, B. Mizaikoff, C. Kranz
Title: *Ion Beam Induced Deposition of Platinum Carbon Composite Electrodes for Combined Atomic Force Microscopy-Scanning Electrochemical Microscopy*
Journal: Electrochem. Comm. **Vol.:** 12 **Page:** 989-991 **Year:** 2010
- 135. Author(s):** L. Wang, C. Kranz, B. Mizaikoff
Title: *Monitoring Scanning Electrochemical Microscopy Approach Curves with Mid-Infrared Spectroscopy – Towards a Novel Current-Independent Positioning Mode*
Journal: Anal. Chem. **Vol.:** 82 **Page:** 3132-3138 **Year:** 2010
- 134. Author(s):** L. Wang, J. Kowalik, B. Mizaikoff, C. Kranz
Title: *Combining Scanning Electrochemical Microscopy with Infrared Attenuated Total Reflection Spectroscopy for In-situ Studies of Electrochemically Induced Processes*
Journal: Anal. Chem. **Vol.:** 82 **Page:** 3139-3145 **Year:** 2010
- 133. Author(s):** S.-S. Kim, C. Young, B. Vidakovic, S. G. A. Gabram-Mendola, C. W. Bayer, B. Mizaikoff
Title: *Potential and Challenges for Mid-Infrared Sensors in Breath Diagnostics*
Journal: IEEE Sensors **Vol.:** 10 **Page:** 145-158 **Year:** 2010

2009

- 132. Author(s):** K. S. Lee, M. F. Abouelnasr, C. W. Bayer, S. G. A. Gabram, B. Mizaikoff, A. Rogatko, B. Vidakovic
Title: *Mining Exhaled Volatile Organic Compounds for Breast Cancer Detection*
Journal: Advances and Applications in Statistical Sciences **Vol.:** 2 **Page:** 1-16 **Year:** 2009
- 131. Author(s):** L. Wang, B. Mizaikoff, C. Kranz
Title: *Quantification of Sugar Mixtures with Near-Infrared Raman Spectroscopy and Multivariate Data Analysis*
Journal: J. Chem. Education **Vol.:** 86 **Page:** 1322-1325 **Year:** 2009
- 130. Author(s):** C. Weber, E. Gauda, B. Mizaikoff, C. Kranz
Title: *Developmental Aspects of Amperometric ATP-Biosensors based on Entrapped Enzymes*
Journal: Anal. and Bioanal. Chem. **Vol.:** 395 **Page:** 1729-1735 **Year:** 2009
- 129. Author(s):** A. Wilk, S.-S. Kim, B. Mizaikoff
Title: *An Approach to the Spectral Simulation of Infrared Hollow Waveguide Gas Sensors*
Journal: Anal. and Bioanal. Chem. **Vol.:** 395 **Page:** 1661-1671 **Year:** 2009
- 128. Author(s):** Y. Luzinova, G. T. Dobbs, R. Sassen, B. Mizaikoff
Title: *Quantification of Adamantane in Organic Media via Infrared Attenuated Total Reflection Spectroscopy*
Journal: Org. Geochemistry **Vol.:** 40 **Page:** 1143-1150 **Year:** 2009
- 127. Author(s):** C. Young, S.-S. Kim, Y. Luzinova, M. Weida, D. Arnone, E. Takeuchi, T. Day, B. Mizaikoff
Title: *External Cavity Widely Tunable Quantum Cascade Laser Based Hollow Waveguide Gas Sensors for Multianalyte Detection*
Journal: Sens. & Act. B **Vol.:** 140 **Page:** 24-28 **Year:** 2009

126. **Author(s):** S.-S. Kim, N. Menegazzo, C. Young, J. Chan, C. Carter, B. Mizaikoff
Title: *Mid-Infrared Trace Gas Analysis with Single-Pass FT-IR Hollow Waveguide Gas Sensors*
Journal: Appl. Spectrosc. **Vol.:** 63 **Page:** 331-337 **Year:** 2009
125. **Author(s):** S.-H. Park, S. Wei, B. Mizaikoff, A. E. Taylor, C. Favero, C.-H. Huang
Title: *Degradation of Amine-Based Water Treatment Polymers during Chloramination as N-Nitrosodimethylamine (NDMA) Precursors*
Journal: Environ. Sci. Technol. **Vol.:** 43 **Page:** 1360-1366 **Year:** 2009
124. **Author(s):** C. Young, R. Cendejas, S. S. Howard, W. Sanchez-Vaynshteyn, A. J. Hoffman, K. J. Franz, Y. Yao, B. Mizaikoff, X. Wang, J. Fan, C. F. Gmachl
Title: *Wavelength Selection for Quantum Cascade Lasers by Cavity Length*
Journal: Appl. Phys. Lett. **Vol.:** 94 **Page:** 0911091-3 **Year:** 2009

2008

123. **Author(s):** H. Shin, P. J. Hesketh, B. Mizaikoff, C. Kranz
Title: *Development of Wafer-Level Batch Fabrication for Combined Atomic Force - Scanning Electrochemical Microscopy (AFM-SECM) Probes*
Journal: Sens. & Act. B **Vol.:** 134 **Page:** 488-495 **Year:** 2008
122. **Author(s):** J. Wiedemair, B. Balamurari, J.-S. Moon, D. Hess, B. Mizaikoff, C. Kranz
Title: *Plasma-Deposited Fluorocarbon Films: Insulation Material for Microelectrodes and Combined Atomic Force Microscopy - Scanning Electrochemical Microscopy Probes*
Journal: Anal. Chem. **Vol.:** 80 **Page:** 5260-5265 **Year:** 2008
121. **Author(s):** L. Wang, B. Mizaikoff
Title: *Application of Multivariate Data Analysis Techniques to Biomedical Diagnostics based on Mid-Infrared Spectroscopy*
Journal: Anal. and Bioanal. Chem. **Vol.:** 391 **Page:** 1641-1654 **Year:** 2008
120. **Author(s):** P. A. Kottke, C. Kranz, Y. K. Kwon, J.-F. Masson, B. Mizaikoff, A. G. Fedorov
Title: *Theory of Polymer Entrapped Enzyme Ultramicroelectrodes: Application to Glucose and Adenosine Triphosphate Detection*
Journal: J. Electroanal. Chem. **Vol.:** 618 **Page:** 74-82 **Year:** 2008
119. **Author(s):** J.-F. Masson, C. Kranz, B. Mizaikoff, E. Gauda
Title: *Amperometric ATP Microbiosensors for the Analysis of Chemosensitivity at the Carotid Bodies of Rats*
Journal: Anal. Chem. **Vol.:** 80 **Page:** 3991-3998 **Year:** 2008
118. **Author(s):** J.-F. Masson, E. Gauda, C. Kranz, B. Mizaikoff
Title: *The Interference of HEPES Buffer during Amperometric Detection of ATP in Clinical Applications*
Journal: Anal. and Bioanal. Chem. **Vol.:** 390 **Page:** 2067-2071 **Year:** 2008
117. **Author(s):** P. A. Kottke, C. Kranz, Y. K. Kwon, J.-F. Masson, B. Mizaikoff, A. G. Fedorov
Title: *Theory of Polymer Entrapped Enzyme Ultramicroelectrodes: Fundamentals*
Journal: J. Electroanal. Chem. **Vol.:** 612 **Page:** 208-218 **Year:** 2008
116. **Author(s):** S.-S. Kim, C. Young, B. Mizaikoff
Title: *Miniaturized Mid-Infrared Sensor Technologies*
Journal: Anal. and Bioanal. Chem. **Vol.:** 390 **Page:** 231-237 **Year:** 2008
115. **Author(s):** C. dos Santos Riccardi, C. Kranz, J. Kowalik, H. Yamanaka, B. Mizaikoff, M. Josowicz
Title: *Label-free DNA Detection of Hepatitis C Virus Based on Modified Conducting Polypyrrole Films at Microelectrodes and AFM-tip Integrated Electrodes*
Journal: Anal. Chem. **Vol.:** 80 **Page:** 237-245 **Year:** 2008

2007

114. **Author(s):** G. T. Dobbs, B. Balu, C. Young, C. Kranz, D. W. Hess, B. Mizaikoff
Title: *Mid-Infrared Chemical Sensors Utilizing Plasma-Deposited Fluorocarbon Membranes*
Journal: Anal. Chem. **Vol.:** 79 **Page:** 9566-9571 **Year:** 2007

113. **Author(s):** J.-F. Masson, C. Kranz, B. Mizaikoff
Title: *Modeling the Response Function of Dual-Enzyme Microbiosensors*
Journal: Anal. Chem. **Vol.:** 79 **Page:** 8531-8538 **Year:** 2007
112. **Author(s):** M. Brucherseifer, C. Kranz, B. Mizaikoff
Title: *Combined In-Situ AFM-IR-ATR Spectroscopy*
Journal: Anal. Chem. **Vol.:** 79 **Page:** 8803-8806 **Year:** 2007
111. **Author(s):** J. O'Mahony, B. C. G. Karlsson, B. Mizaikoff, I. A. Nicholls
Title: *Mechanisms Underlying a Non-Covalent Imprinted Polymer System: New Detail from Correlated Theoretical, Spectroscopic and X-ray Crystallographic Studies of Pre-polymerisation Events*
Journal: Analyst **Vol.:** 132 **Page:** 1161-1168 **Year:** 2007
110. **Author(s):** J.-F. Masson, C. Kranz, K. S. Booksh, B. Mizaikoff
Title: *Improved Sensitivity and Stability of Amperometric Enzyme Microbiosensors by Covalent Attachment to Gold Electrodes*
Journal: Biosens. & Bioelectr. **Vol.:** 23 **Page:** 355-361 **Year:** 2007
109. **Author(s):** J.-S. Moon, H. Shin, B. Mizaikoff, C. Kranz
Title: *Bitmap-Assisted Focused Ion Beam Fabrication of Combined Atomic Force Scanning Electrochemical Microscopy Probes*
Journal: J. Korean Phys. Soc. **Vol.:** 51 **Page:** 920-924 **Year:** 2007
108. **Author(s):** S. Wei, M. Jakusch, B. Mizaikoff
Title: *Investigating the Mechanisms of 17 β -Estradiol Imprinting by Computational Prediction and Spectroscopic Analysis*
Journal: Anal. and Bioanal. Chem. **Vol.:** 389 **Page:** 423-431 **Year:** 2007
107. **Author(s):** S. Wei, B. Mizaikoff
Title: *Binding Site Characteristics of 17 β -Estradiol Imprinted Polymers*
Journal: Biosens. & Bioelectr. **Vol.:** 23 **Page:** 201-209 **Year:** 2007
106. **Author(s):** S. Wei, B. Mizaikoff
Title: *Recent Advances on Non-covalent Molecular Imprints for Affinity Separations*
Journal: J. Separation Sci. **Vol.:** 30 **Page:** 1794-1805 **Year:** 2007
105. **Author(s):** A. Z. Simões, C. S. Riccardi, L. S. Cavalcante, E. Longo, J. A. Varela, B. Mizaikoff
Title: *Impact of Oxygen Ambient On Piezoelectric Properties of CaBi₂Nb₂O₉ Thin Films*
Journal: Acta Materialia **Vol.:** 55 **Page:** 4707-4712 **Year:** 2007
104. **Author(s):** K. Eckhard, C. Kranz, H. Shin, B. Mizaikoff, W. Schuhmann
Title: *Frequency Dependence of the Electrochemical Activity Contrast in AC-Scanning Electrochemical Microscopy and Atomic Force Microscopy-AC-Scanning Electrochemical Microscopy Imaging*
Journal: Anal. Chem. **Vol.:** 79 **Page:** 5435-5438 **Year:** 2007
103. **Author(s):** G. Kos, H. Lohninger, B. Mizaikoff, R. Krska
Title: *Optimisation of a Sample Preparation Procedure for the Screening of Fungal Infection and Assessment of Deoxynivalenol Content on Maize using Mid-Infrared Attenuated Total Reflection Spectroscopy*
Journal: Food Addit. and Contamin. **Vol.:** 24 **Page:** 721-729 **Year:** 2007
102. **Author(s):** K. Eckhard, W. Schuhmann, H. Shin, B. Mizaikoff, C. Kranz
Title: *Alternating Current (AC) Impedance Imaging with Combined Atomic Force Scanning Electrochemical Microscopy (AFM-SECM)*
Journal: Electrochem. Communications **Vol.:** 9 **Page:** 1311-1315 **Year:** 2007
101. **Author(s):** H. Shin, P. Hesketh, B. Mizaikoff, C. Kranz
Title: *Batch Fabrication of Atomic Force Microscopy Probes with Recessed Integrated Ring Microelectrodes at a Wafer Level*
Journal: Anal. Chem. **Vol.:** 79 **Page:** 4769-4777 **Year:** 2007
100. **Author(s):** T. M. Patz, A. Doraiswamy, R. J. Narayan, N. Menegazzo, C. Kranz, B. Mizaikoff, Y. Zhong, R. Bellamkonda, J. D. Bumgardner, S. H. Elder, X. F. Walboomers, R. Modi, D. B. Chrisey
Title: *Matrix assisted pulsed laser evaporation of biomaterial thin films.*
Journal: Mater. Sci. & Engin., C: Biomimetic & Supramol. Sys. **Vol.:** 27 **Page:** 514-522 **Year:** 2007
99. **Author(s):** N. Menegazzo, C. Jin, R. J. Narayan, B. Mizaikoff
Title: *Compositional and Electrochemical Characterization of Noble Metal-Diamondlike Carbon Nanocomposite Thin Films*
Journal: Langmuir **Vol.:** 23 **Page:** 6812-6818 **Year:** 2007
98. **Author(s):** A. Z. Simões, C. S. Riccardi, L. S. Cavalcante, E. Longo, J. A. Varela, B. Mizaikoff, D. W. Hess
Title: *Ferroelectric Fatigue Endurance of Bi_{4-x}La_xTi₃O₁₂ Thin Films Explained in Terms of X-ray Photoelectron Spectroscopy*
Journal: J. Appl. Phys. **Vol.:** 101 **Page:** 084112/2-6 **Year:** 2007

97. **Author(s):** A. Z. Simões, C. S. Riccardi, L. S. Cavalcante, E. Longo, J. A. Varela, B. Mizaikoff
Title: *Nature of Defects for Bismuth Layered Thin Films Grown on Pt Electrodes*
Journal: Appl. Phys. Lett. **Vol.:** 90 **Page:** 0829101-3 **Year:** 2007
96. **Author(s):** L. Wang, J. Chapman, R. A. Palmer, O. Van Ramm, B. Mizaikoff
Title: *Classification of Atherosclerotic Rabbit Aorta Samples by Mid-Infrared Spectroscopy and Multivariate Data Analysis*
Journal: J. Biomed. Opt. **Vol.:** 12 **Page:** 0240061-11 **Year:** 2007
95. **Author(s):** R. J. Narayan, C. Jin, N. Menegazzo, B. Mizaikoff, R. A. Gerhardt, M. Andara, A. Agarwal, C.-C. Shih, C.-M. Shih, S.-J. Lin, Y.-Y. Su
Title: *Nanoporous Hard Carbon Membranes for Medical Applications*
Journal: J. Nanosci. Nanotechnol. **Vol.:** 7 **Page:** 1486-1493 **Year:** 2007
94. **Author(s):** J. Wiedemair, M. J. Serpe, J. Kim, J.-F. Masson, L. A. Lyon, B. Mizaikoff, C. Kranz
Title: *In-situ AFM Studies on the Phase Transition Behavior of Single Thermoresponsive Hydrogel Particles*
Journal: Langmuir **Vol.:** 23 **Page:** 130-137 **Year:** 2007

2006

93. **Author(s):** L. Wang, J. Chapman, R. A. Palmer, T. Alter, B. Hooper, O. Van Ramm, B. Mizaikoff
Title: *Classification of Atherosclerotic Rabbit Aorta Samples with an Infrared Attenuated Total Reflection Catheter and Multivariate Data Analysis*
Journal: Appl. Spectrosc. **Vol.:** 60 **Page:** 1121-1126 **Year:** 2006
92. **Author(s):** S. Wei, M. Jakusch, B. Mizaikoff
Title: *Capturing Molecules with Templated Materials – Analysis and Rational Design of Molecularly Imprinted Polymers*
Journal: Anal. Chim. Acta **Vol.:** 578 **Page:** 50-58 **Year:** 2006
91. **Author(s):** J. O'Mahony, S. Wei, A. Molinelli, B. Mizaikoff
Title: *Imprinted Polymeric Materials – New Insight into the Nature of Pre-polymerization Complexes of Quercetin-Imprinted Polymers*
Journal: Anal. Chem. **Vol.:** 78 **Page:** 6187-6190 **Year:** 2006
90. **Author(s):** G. Dobbs, B. Mizaikoff
Title: *Shining New Light at Old Principles: Localization of Evanescent Field Interactions at IR-ATR Sensing Interfaces*
Journal: Appl. Spectrosc. **Vol.:** 60 **Page:** 573-583 **Year:** 2006
89. **Author(s):** C. Charlton, M. Giovannini, J. Faist, B. Mizaikoff
Title: *Fabrication and Characterization of MBE Grown Thin Film GaAs Waveguides for Mid-Infrared Evanescent Field Chemical Sensing*
Journal: Anal. Chem. **Vol.:** 78 **Page:** 4224-4227 **Year:** 2006
88. **Author(s):** K. Flavin, H. Hughes, V. Dobbyn, P. Kirwan, K. Murphy, H. Steiner, B. Mizaikoff, P. McLoughlin
Title: *A Comparison of Polymeric Materials as Pre-concentrating Media for use with ATR/FTIR Sensing*
Journal: Intern. J. Environ. Anal. Chem. **Vol.:** 86 **Page:** 401-415 **Year:** 2006
87. **Author(s):** S. Wei, A. Molinelli, B. Mizaikoff
Title: *Molecularly Imprinted Micro- and Nanospheres for the Selective Recognition of 17 β -Estradiol*
Journal: Biosens. & Bioelectr. **Vol.:** 21 **Page:** 1943-1951 **Year:** 2006
86. **Author(s):** B.T. Thompson, A. Inberg, N. Croitoru, B. Mizaikoff
Title: *Characterization of a Mid-Infrared Hollow Waveguide Gas Cell for the Analysis of Carbon Monoxide and Nitric Oxide*
Journal: Appl. Spectrosc. **Vol.:** 60 **Page:** 266-271 **Year:** 2006
85. **Author(s):** B.T. Thompson, B. Mizaikoff
Title: *Real-Time FT-IR Analysis of Carbon Monoxide and Nitric Oxide in Sidestream Cigarette Smoke*
Journal: Appl. Spectrosc. **Vol.:** 60 **Page:** 272-278 **Year:** 2006
84. **Author(s):** C. dos Santos Riccardi, H. Yamanaka, M. Josowicz, J. Kowalik, B. Mizaikoff, C. Kranz
Title: *Label-Free DNA Detection Based on Modified Conducting Polypyrrole Films at Microelectrodes*
Journal: Anal. Chem. **Vol.:** 78 **Page:** 1139-1145 **Year:** 2006
83. **Author(s):** J. O'Mahony, A. Molinelli, K. Nolan, M.R. Smyth, B. Mizaikoff
Title: *Anatomy of a Successful Imprint: Analysing the Recognition Mechanisms of a Molecularly Imprinted Polymer for Quercetin*
Journal: Biosens. & Bioelectr. **Vol.:** 21 **Page:** 1383-1392 **Year:** 2006

2005

82. **Author(s):** C. Charlton, A. Katzir, B. Mizaikoff
Title: *Infrared Evanescent Field Sensing with Quantum Cascade Lasers and Planar Silver Halide Waveguides*
Journal: Anal. Chem. **Vol.:** 77 **Page:** 4398-4403 **Year:** 2005
81. **Author(s):** A. Molinelli, J. O'Mahony, K. Nolan, M.R. Smyth, M. Jakusch, B. Mizaikoff
Title: *Analyzing the Mechanisms of Selectivity in 2,4-Dichlorophenoxyacetic Acid Imprints with IR and NMR Spectroscopy of the Pre-Polymerization Solution and Molecular Dynamics Simulations*
Journal: Anal. Chem. **Vol.:** 77 **Page:** 5196-5204 **Year:** 2005
80. **Author(s):** A. Kueng, C. Kranz, B. Mizaikoff
Title: *Imaging of ATP Membrane Transport Using a Dual Micro-Disk Electrode in Scanning Electrochemical Microscopy*
Journal: Biosens. & Bioelectr. **Vol.:** 21 **Page:** 346-353 **Year:** 2005
79. **Author(s):** C. Charlton, B. Temelkuran, G. Dellemann, B. Mizaikoff
Title: *Mid-Infrared Sensors meet Nanotechnology: Trace Gas Sensing with Quantum Cascade Lasers inside Photonic Bandgap Hollow Waveguides*
Journal: Appl. Phys. Lett. **Vol.:** 86 **Page:** 194102/1-3 **Year:** 2005
78. **Author(s):** A. Kueng, C. Kranz, A. Lugstein, E. Bertagnolli, B. Mizaikoff
Title: *AFM-Tip Integrated Amperometric Microbiosensors for High Resolution Imaging of Membrane Transport Processes*
Journal: Angewandte Chemie Internat. Ed. **Vol.:** 44 **Page:** 3419-3422 **Year:** 2005
77. **Author(s):** R. Krska, E. Welzig, F. Berthiller, A. Molinelli, B. Mizaikoff
Title: *Advances in Analysis of Mycotoxins and its Quality Assurance*
Journal: Food Addit. and Contamin. **Vol.:** 22 **Page:** 345-353 **Year:** 2005
76. **Author(s):** T. Patz, R. Cristescu, R. Narayan, N. Menegazzo, B. Mizaikoff, P. B. Messersmith, I. Stamatina, I. N. Mihailescu, D. B. Chrisey
Title: *Processing of mussel-adhesive protein analog copolymer thin films by matrix-assisted pulsed laser evaporation*
Journal: Appl. Surf. Sci. **Vol.:** 248 **Page:** 416-421 **Year:** 2005
75. **Author(s):** R. Cristescu, T. Patz, R. J. Narayan, N. Menegazzo, B. Mizaikoff, D. E. Mihailescu, P. B. Messersmith, I. Stamatina, I. N. Mihailescu, D. B. Chrisey
Title: *Processing of mussel adhesive protein analog thin films by matrix assisted pulsed laser evaporation*
Journal: Appl. Surf. Sci. **Vol.:** 247 **Page:** 217-224 **Year:** 2005
74. **Author(s):** J. O'Mahony, A. Molinelli, K. Nolan, M.R. Smyth, B. Mizaikoff
Title: *Molecularly Imprinted Polymers - Potential and Challenges in Analytical Chemistry*
Journal: Anal. Chim. Acta **Vol.:** 534 **Page:** 31-39 **Year:** 2005
73. **Author(s):** J. O'Mahony, A. Molinelli, K. Nolan, M.R. Smyth, B. Mizaikoff
Title: *Towards the Rational Development of Molecularly Imprinted Polymers: Elucidating the Nature of Pre-polymerisation Complexes with NMR*
Journal: Biosens. & Bioelectr. **Vol.:** 20 **Page:** 1884-1893 **Year:** 2005
72. **Author(s):** O. Sklyar, A. Kueng, C. Kranz, B. Mizaikoff, A. Lugstein, E. Bertagnolli, G. Wittstock
Title: *Numerical Simulation of SECM Experiments with Frame-Shaped Integrated AFM-SECM Probes Using the Boundary Element Method*
Journal: Anal. Chem. **Vol.:** 77 **Page:** 764-771 **Year:** 2005

2004

71. **Author(s):** M. Janotta, D. Rudolph, A. Kueng, C. Kranz, H.-S. Voraberger, W. Waldhauser, B. Mizaikoff
Title: *Analysis of Corrosion Processes at DLC Protected ZnSe Waveguide Surfaces*
Journal: Langmuir **Vol.:** 20 **Page:** 8634-8640 **Year:** 2004
70. **Author(s):** C. Kranz, A. Kueng, A. Lugstein, E. Bertagnolli, B. Mizaikoff
Title: *Mapping of Enzyme Activity by Detection of Enzymatic Products during AFM Imaging with Integrated SECM-AFM Probes*
Journal: Ultramicroscopy **Vol.:** 100 **Page:** 127-134 **Year:** 2004
69. **Author(s):** F. Vogt, H. Steiner, K. Booksh, B. Mizaikoff
Title: *Chemometric Correction of Drift Effects in Optical Spectra*
Journal: Appl. Spectrosc. **Vol.:** 58 **Page:** 683-692 **Year:** 2004

68. **Author(s):** D. Rudolph, C. Kranz, S. Neuhuber, M. Taillefert, B. Mizaikoff
Title: *Scanning Electrochemical Microscopy Imaging of Rhodocrosite Dissolution Using Gold Amalgam Electrodes*
Journal: Analyst **Vol.:** 129 **Page:** 443-448 **Year:** 2004
67. **Author(s):** F. Vogt, B. Mizaikoff
Title: *Fault Tolerant Spectroscopic Data Evaluation Based on Extended Principal Component Regression Correcting for Spectral Drifts and Uncalibrated Spectral Features*
Journal: J. Chemometrics **Vol.:** 17 **Page:** 660-665 **Year:** 2004
66. **Author(s):** M. Karlowatz, M. Kraft, B. Mizaikoff
Title: *Simultaneous Quantitative Determination of Benzene, Toluene and Xylenes in Water With Mid-Infrared Evanescent Field Spectroscopy*
Journal: Anal. Chem. **Vol.:** 76 **Page:** 2643-2648 **Year:** 2004
65. **Author(s):** A. Kueng, C. Kranz, B. Mizaikoff
Title: *Amperometric ATP-Biosensor Based on Polymer Entrapped Enzymes*
Journal: Biosens. & Bioelectr. **Vol.:** 19 **Page:** 1301-1307 **Year:** 2004
64. **Author(s):** O. A. Pogodina, V. V. Pustogov, F. de Melas, C. Haberhauer-Troyer, E. Rosenberg, H. Puxbaum, A. Inberg, N. Croitoru, B. Mizaikoff
Title: *Combination of Sorption-Tube Sampling and Thermal Desorption with Hollow Waveguide FT-IR Spectroscopy for Atmospheric Trace Gas Analysis: Determination of Atmospheric Ethene at the Lower ppb Level*
Journal: Anal. Chem. **Vol.:** 76 **Page:** 464-468 **Year:** 2004
63. **Author(s):** M. Janotta, F. Vogt, H. Voraberger, W. Waldhauser, J. M. Lackner, C. Stotter, M. Beutl, B. Mizaikoff
Title: *Direct Analysis of Oxidizing Agents in Aqueous Solution with Attenuated Total Reflectance Mid-Infrared Spectroscopy and DLC Protected Waveguides*
Journal: Anal. Chem. **Vol.:** 76 **Page:** 384-391 **Year:** 2004

2003

62. **Author(s):** A. Kueng, C. Kranz, B. Mizaikoff
Title: *Scanning Probe Microscopy with Integrated Biosensors*
Journal: Sensor Letters **Vol.:** 1 **Page:** 2-15 **Year:** 2003
61. **Author(s):** C. Charlton, B. Mizaikoff, F. de Melas, A. Inberg, N. Croitoru
Title: *Hollow Waveguide Gas Sensing with Room-Temperature Quantum Cascade Lasers*
Journal: IEE Optoelectronics **Vol.:** 150 **Page:** 306-309 **Year:** 2003
60. **Author(s):** M. Janotta, M. Karlowatz, F. Vogt, B. Mizaikoff
Title: *Sol-gel Based Mid-Infrared Evanescent Wave Sensors for Detection of Organophosphate Pesticides in Aqueous Solution*
Journal: Anal. Chim. Acta **Vol.:** 496 **Page:** 339-348 **Year:** 2003
59. **Author(s):** F. Vogt, B. Mizaikoff
Title: *Dynamic determination of the dimension of PCA calibration models using F-statistics*
Journal: J. Chemometrics **Vol.:** 17 **Page:** 346-357 **Year:** 2003
58. **Author(s):** A. Kueng, C. Kranz, A. Lugstein, E. Bertagnolli, B. Mizaikoff
Title: *Simultane Topographische und Elektrochemische Abbildung von Enzymaktivität mit Integrierten AFM-SECM Rasternahfeldsonden im AFM Tapping Mode*
Journal: Angewandte Chemie **Vol.:** 115 **Page:** 3357-3360 **Year:** 2003
57. **Author(s):** A. Kueng, C. Kranz, A. Lugstein, E. Bertagnolli, B. Mizaikoff
Title: *Integrated atomic force scanning electrochemical microscopy in tapping mode: Simultaneous topographical and electrochemical imaging of enzyme activity*
Journal: Angewandte Chemie Internat. Ed. **Vol.:** 42 **Page:** 3237-3240 **Year:** 2003
56. **Author(s):** M. Janotta, A. Katzir, B. Mizaikoff
Title: *Sol-gel Coated Mid-Infrared Fiberoptic Sensors*
Journal: Appl. Spectrosc. **Vol.:** 57 **Page:** 823-828 **Year:** 2003
55. **Author(s):** F. de Melas, V. V. Pustogov, D. K. Wolcott, D. C. Olson, A. Inberg, N. Croitoru, B. Mizaikoff
Title: *Combination of a Mid-Infrared Hollow Waveguide Gas Sensor with a Supported Capillary Membrane Sampler for the Detection of Organic Compounds in Water*
Journal: Intern. J. Environ. Anal. Chem. **Vol.:** 83 **Page:** 573-583 **Year:** 2003

54. **Author(s):** B. Mizaikoff
Title: *Mid-Infrared Fiberoptic Sensors*
Journal: *Invited, Anal. Chem.* **Vol.:** 75 **Page:** 258A-267A **Year:** 2003
53. **Author(s):** F. Vogt, B. Mizaikoff
Title: *Introduction and Application of Secured Principal Component Regression (sPCR) for Analysis of Uncalibrated Spectral Features in Optical Spectroscopy and Chemical Sensing*
Journal: *Anal. Chem.* **Vol.:** 75 **Page:** 3050-3058 **Year:** 2003
52. **Author(s):** H. Steiner, M. Karlowatz, M. Jakusch, M. Kraft, B. Mizaikoff, T. Baumann, R. Niessner, W. Konz, A. Brandenburg, S. McDonald, C. Boussard-Plédel, B. Bureau, J. Lucas, Y. Reichlin, A. Katzir, N. Fleischmann, K. Staubmann, R. Allabashi, J. M. Bayona
Title: *In-Situ Sensing of Volatile Organic Compounds in Groundwater. First Field Tests of a Mid-Infrared Fiberoptic Sensing System*
Journal: *Appl. Spectrosc.* **Vol.:** 57 **Page:** 607-613 **Year:** 2003
51. **Author(s):** M. Kraft, M. Jakusch, M. Karlowatz, A. Katzir, B. Mizaikoff
Title: *New Frontiers for Mid-Infrared Sensors: Towards Deep Sea Monitoring with a Submarine FT-IR Sensor System*
Journal: *Appl. Spectrosc.* **Vol.:** 57 **Page:** 591-599 **Year:** 2003
50. **Author(s):** F. de Melas, V. V. Pustogov, N. Croitoru, B. Mizaikoff
Title: *Development of an Optimised Mid-Infrared Hollow Waveguide Gas Sensor Combined with a Supported Capillary Membrane Sampler*
Journal: *Appl. Spectrosc.* **Vol.:** 57 **Page:** 600-606 **Year:** 2003
49. **Author(s):** H. Voraberger, V. Ribitsch, M. Janotta, B. Mizaikoff
Title: *Application of Mid-Infrared Spectroscopy: Measuring Hydrogen Peroxide Concentrations in Bleaching Baths*
Journal: *Appl. Spectrosc.* **Vol.:** 57 **Page:** 574-579 **Year:** 2003
48. **Author(s):** R. Weiss, M. Freudenschuss, R. Krska, B. Mizaikoff
Title: *Improving the Analysis of Mycotoxins. Molecularly Imprinted Polymers for Deoxynivalenol and Zearalenone*
Journal: *Food Addit. and Contamin.* **Vol.:** 20 **Page:** 386-395 **Year:** 2003
47. **Author(s):** F. Vogt, B. Mizaikoff
Title: *Secured PCR (sPCR) for Detection, Correction, and Characterization of PCR Calibration Model Failures Induced by Uncalibrated Spectral Features*
Journal: *J. Chemometrics* **Vol.:** 17 **Page:** 225-236 **Year:** 2003
46. **Author(s):** T. Beyer, P. Hahn, S. Hartwig, W. Konz, S. Scharring, A. Katzir, H. Steiner, M. Jakusch, M. Kraft, B. Mizaikoff
Title: *Mini Spectrometer with Silver Halide Sensor Fiber for In-Situ Detection of Chlorinated Hydrocarbons*
Journal: *Sens. & Act. B* **Vol.:** 90 **Page:** 319-323 **Year:** 2003
45. **Author(s):** F. Vogt, M. Karlowatz, M. Jakusch, B. Mizaikoff
Title: *An Automated Sample Preparation System for Investigation of Volatile Organic Compounds with Mid-Infrared Evanescent Wave Spectroscopy*
Journal: *Analyst* **Vol.:** 128 **Page:** 397-403 **Year:** 2003
44. **Author(s):** A. Kueng, C. Kranz, B. Mizaikoff, A. Lugstein, E. Bertagnolli
Title: *Combined Scanning Electrochemical Atomic Force Microscopy for Tapping Mode Imaging*
Journal: *Appl. Phys. Lett.* **Vol.:** 82 **Page:** 1592-1594 **Year:** 2003
43. **Author(s):** C. Phillips, M. Jakusch, H. Steiner, B. Mizaikoff, A. G. Fedorov
Title: *Model Based Optimal Design of Polymer Coated Chemical Sensors*
Journal: *Anal. Chem.* **Vol.:** 75 **Page:** 1106-1115 **Year:** 2003
42. **Author(s):** B. Mizaikoff
Title: *Infrared Optical Sensors for Water Quality Monitoring*
Journal: *Water Sci. Technol.* **Vol.:** 47 **Page:** 35-42 **Year:** 2003
41. **Author(s):** H. Steiner, K. Staubmann, R. Allabashi, N. Fleischmann, A. Katzir, Y. Raichlin, B. Mizaikoff
Title: *Online Sensing of Volatile Organic Compounds in Groundwater using Mid-Infrared Fibre Optic Evanescent Wave Spectroscopy: A Pilot Scale Test*
Journal: *Water Sci. Technol.* **Vol.:** 47 **Page:** 121-126 **Year:** 2003

2002

40. **Author(s):** R. Weiss, B. Mizaikoff
Title: *Towards Analysis of Mycotoxins in Beverages with Molecularly Imprinted Polymers for Deoxynivalenol and Zearalenone*
Journal: Mycotoxin Research **Vol.:** 18A **Page:** 89-93 **Year:** 2002
39. **Author(s):** R. Weiss, A. Molinelli, M. Jakusch, B. Mizaikoff
Title: *Molecular Imprinting and Solid Phase Extraction of Flavonoid Compounds*
Journal: Bioseparations **Vol.:** 10 **Page:** 379-387 **Year:** 2002
38. **Author(s):** B. Mizaikoff, C. Kranz
Title: *Interfacing Chemistry with Microdevices. Potential and Challenges of Chemical Microsensors.*
Journal: Proc. IEEE Advanced Semiconductor Devices and Microsystems (ASDAM 2002) **Vol.:** **Page:** 307-316 **Year:** 2002
37. **Author(s):** F. Vogt, M. Kraft, B. Mizaikoff
Title: *First Results on Infrared Attenuated Total Reflection Spectroscopy for Quantitative Analysis of Salt Ions in Seawater*
Journal: Appl. Spectrosc. **Vol.:** 56 **Page:** 1376-1380 **Year:** 2002
36. **Author(s):** L. Hvozدارa, N. Pennington, M. Kraft, M. Karlowatz, B. Mizaikoff
Title: *Quantum Cascade Lasers for Mid-Infrared Spectroscopy*
Journal: Vib. Spectrosc. **Vol.:** 30 **Page:** 53-58 **Year:** 2002
35. **Author(s):** M. Kölhed, V. Pustogov, B. Mizaikoff, M. Haberkorn, J. Frank, B. Karlberg, B. Lendl
Title: *Assessment of Quantum Cascade Lasers as Mid Infrared Light Sources for Measurement of Aqueous Samples*
Journal: Vib. Spectrosc. **Vol.:** 29 **Page:** 283-289 **Year:** 2002
34. **Author(s):** A. Lugstein, E. Bertagnolli, C. Kranz, A. Kueng, B. Mizaikoff
Title: *Integrating Micro- and Nanoelectrodes into AFM Cantilevers using Focused Ion Beam Techniques*
Journal: Appl. Phys. Lett. **Vol.:** 81 **Page:** 349-351 **Year:** 2002
33. **Author(s):** M. Kraft, M. Karlowatz, B. Mizaikoff, R. Stück, M. Steden, M. Ulex, H. Amann
Title: *Sensor Head Development for Mid-Infrared Fibre-Optic Underwater Sensors*
Journal: Meas. Sci. Technol. **Vol.:** 13 **Page:** 1294-1303 **Year:** 2002
32. **Author(s):** A. Molinelli, R. Weiss, B. Mizaikoff
Title: *Advanced Solid Phase Extraction Using Molecularly Imprinted Polymers for the Determination of Flavonoids in Red Wine*
Journal: J. Agric. Food Chem. **Vol.:** 50 **Page:** 1804-1808 **Year:** 2002
31. **Author(s):** C. Kranz, B. Mizaikoff, A. Lugstein, E. Bertagnolli
Title: *Integrating an Ultramicroelectrode in an AFM Cantilever: Towards the Development of a Combined Microsensing-Imaging Tool*
Journal: Electrochemical Methods for the Environmental Analysis at Trace Element Biogeochemistry, Taillefert, M., Rozan, T.F., Eds.; American Chemical Society Symposium Volume **Vol.:** 811 **Page:** 320-336 **Year:** 2002
30. **Author(s):** A. Lugstein, E. Bertagnolli, C. Kranz, B. Mizaikoff
Title: *Fabrication of a Ring-Nanoelectrode Integrated in an AFM-Tip – A Novel Approach Towards Simultaneous Electrochemical and Topographical Imaging*
Journal: Surf. and Interf. Anal. **Vol.:** 33 **Page:** 146-150 **Year:** 2002

2001

29. **Author(s):** M. Janotta, R. Weiss, B. Mizaikoff, O. Brüggemann, L. Ye, K. Mosbach
Title: *Molecularly Imprinted Polymers for Nitrophenols – An Advanced Separation Material for Environmental Analysis*
Journal: Intern. J. Environ. Anal. Chem. **Vol.:** 80 **Page:** 75-86 **Year:** 2001
28. **Author(s):** C. Kranz, G. Friedbacher, B. Mizaikoff, A. Lugstein, J. Smoliner, E. Bertagnolli
Title: *Integrating an Ultramicroelectrode in an AFM Cantilever. Combined Technology for Enhanced Information*
Journal: Anal. Chem. **Vol.:** 73 **Page:** 2491-2500 **Year:** 2001
27. **Author(s):** P. Hahn, M. Tacke, M. Jakusch, B. Mizaikoff, O. Spector, A. Katzir
Title: *Detection of Hydrocarbons in Water by MIR Evanescent Wave Spectroscopy with Flattened Silver Halide Fibres*
Journal: Appl. Spectrosc. **Vol.:** 55 **Page:** 39-43 **Year:** 2001

2000

26. **Author(s):** L. Hvozdar, S. Gianordoli, G. Strasser, W. Schrenk, K. Unterrainer, E. Gornik, Ch. S. S. S. Murthy, M. Kraft, V. Pustogow, B. Mizaikoff, A. Inberg, N. Croitoru
Title: *Laser Spectroscopy in the Gas Phase using GaAs/AlGaAs Quantum Cascade Lasers*
Journal: Appl. Opt. **Vol.:** 39 **Page:** 6926-6930 **Year:** 2000
25. **Author(s):** M. Karlowatz, M. Kraft, E. Eitenberger, B. Mizaikoff, A. Katzir
Title: *Chemically Tapered Silver Halide Fibers – An Approach for Increasing the Sensitivity of Mid-Infrared Evanescent Wave Sensors*
Journal: Appl. Spectrosc. **Vol.:** 54 **Page:** 1629-1633 **Year:** 2000
24. **Author(s):** F. Vogt, M. Tacke, M. Jakusch, B. Mizaikoff
Title: *A UV Spectroscopic Method for Monitoring Aromatic Hydrocarbons Dissolved in Water*
Journal: Anal. Chim. Acta **Vol.:** 422 **Page:** 187-198 **Year:** 2000
23. **Author(s):** M. Kraft, B. Mizaikoff
Title: *A Mid-Infrared Sensor for Monitoring of Chlorinated Hydrocarbons in the Marine Environment*
Journal: Intern. J. Environ. Anal. Chem. **Vol.:** 78 **Page:** 367-383 **Year:** 2000
22. **Author(s):** L. Hvozdar, S. Gianordoli, G. Strasser, W. Schrenk, K. Unterrainer, E. Gornik, V. Pustogow, Ch. S. S. S. Murthy, M. Kraft, B. Mizaikoff
Title: *GaAs/AlGaAs Quantum Cascade Laser – A Source for Gas Absorption Spectroscopy*
Journal: Physica E **Vol.:** 7 **Page:** 37-39 **Year:** 2000

1999 and before

21. **Author(s):** B. Mizaikoff
Title: *Mid-Infrared Fiberoptic Evanescent Wave Sensors – A Novel Approach for Subsea Monitoring*
Journal: Meas. Sci. Technol. **Vol.:** 10 **Page:** 1185-1194 **Year:** 1999
20. **Author(s):** M. Jakusch, M. Janotta, B. Mizaikoff, K. Mosbach, K. Haupt
Title: *Molecularly Imprinted Polymers and Infrared Evanescent Wave Spectroscopy - A Chemical Sensors Approach*
Journal: Anal. Chem. **Vol.:** 71 **Page:** 4786-4791 **Year:** 1999
19. **Author(s):** B. Mizaikoff, M. Kraft, M. Jakusch
Title: *Infrared Fiberoptic Sensors – A Versatile Tool for Water Monitoring*
Journal: Sea Technol. Mag. **Vol.:** 40 **Page:** 25-34 **Year:** 1999
18. **Author(s):** H. D. Wanzenböck, B. Mizaikoff, N. Weissenbacher, R. Kellner
Title: *Surface Enhanced Infrared Absorption Spectroscopy (SEIRA) Using External Reflection on Low-Cost Substrates*
Journal: Fres. J. Anal. Chem. **Vol.:** 362 **Page:** 15-20 **Year:** 1998
17. **Author(s):** B. Mizaikoff, P. Fuss, M. Hall
Title: *Fast-Spec: an Infrared Spectroscopic Diagnostic to Measure Time-Resolved Exhaust Hydrocarbon Emissions from SI Engines*
Journal: Proc. of the 27th International Symposium on Combustion, Boulder/USA, August 2-7, 1998 **Vol.:** **Page:** 2093-2099 **Year:** 1998
16. **Author(s):** R. Götz, B. Mizaikoff, R. Kellner
Title: *Application of Sapphire Fibers to an IR Fiber Optic Sensor for the Investigation of Polymers at High Temperature*
Journal: Appl. Spectrosc. **Vol.:** 52 **Page:** 1248-1252 **Year:** 1998
15. **Author(s):** N. Weissenbacher, B. Lendl, J. Frank, H. D. Wanzenböck, B. Mizaikoff, R. Kellner
Title: *Continuous Surface Enhanced Raman Spectroscopy for the Detection of Trace Organic Pollutants in Aqueous Systems*
Journal: J. Mol. Struct. **Vol.:** 410/411 **Page:** 539-542 **Year:** 1997
14. **Author(s):** H. D. Wanzenböck, B. Mizaikoff, N. Weissenbacher, R. Kellner
Title: *Multiple Internal Reflection in Surface Enhanced Infrared Absorption Spectroscopy for the Detection of Trace Organic Pollutants in Aqueous Systems*
Journal: J. Mol. Struct. **Vol.:** 410/411 **Page:** 535-538 **Year:** 1997
13. **Author(s):** R. Kellner, B. Mizaikoff, M. Jakusch, H. D. Wanzenböck, N. Weissenbacher
Title: *Surface Enhanced Vibrational Spectroscopy - A New Tool in Chemical IR Sensing?*
Journal: Appl. Spectrosc. **Vol.:** 51 **Page:** 495-503 **Year:** 1997

12. **Author(s):** M. Jakusch, B. Mizaikoff, R. Kellner, A. Katzir
Title: *Towards a Remote IR Fiber Optic Sensor System for the Determination of Chlorinated Hydrocarbons in Water*
Journal: Sens. & Act. B **Vol.:** 38-39 **Page:** 83-87 **Year:** 1997
11. **Author(s):** J. F. Kastner, M. Tacke, A. Katzir, B. Mizaikoff, R. Göbel, R. Kellner
Title: *Optimizing the Modulation for Evanescent Wave Analysis with Laser Diodes (EWALD) for Monitoring Chlorinated Hydrocarbons in Water*
Journal: Sens. & Act. B **Vol.:** 38-39 **Page:** 163-170 **Year:** 1997
10. **Author(s):** M. Hiller, B. Mizaikoff, R. Kellner, W. Theiß, P. Grosse
Title: *Numerical Simulation of IR-Spectroscopic Experiments*
Journal: Microchim. Acta **Vol.:** 14 **Page:** 283-285 **Year:** 1997
9. **Author(s):** R. Götz, B. Mizaikoff, R. Kellner
Title: *Application of Sapphire Fibers to IR Fiber Optic Evanescent Field Gas Sensors*
Journal: Microchim. Acta **Vol.:** 14 **Page:** 833-835 **Year:** 1997
8. **Author(s):** H. D. Wanzenböck, B. Mizaikoff, G. Friedbacher, M. Grasserbauer, R. Kellner, M. Arntzen, T. Luyven, W. Theiß, P. Grosse
Title: *Surface Enhanced Infrared Absorption Spectroscopy (SEIRA) using Multireflection ATR-Elements*
Journal: Microchim. Acta **Vol.:** 14 **Page:** 665-667 **Year:** 1997
7. **Author(s):** B. Mizaikoff, K. Taga, R. Kellner
Title: *Infrared Fiber Optic Gas Sensor for Chlorofluorohydrocarbons*
Journal: Vib. Spectrosc. **Vol.:** 8 **Page:** 103-108 **Year:** 1995
6. **Author(s):** B. Mizaikoff, R. Göbel, R. Krska, K. Taga, R. Kellner, M. Tacke, A. Katzir
Title: *Infrared Fiber-Optical Chemical Sensors with Reactive Surface Coatings*
Journal: Sens. & Act. B **Vol.:** 29 **Page:** 58-63 **Year:** 1995
5. **Author(s):** B. Mizaikoff, M. Sengeis, R. Kellner, W. Theiß, P. Grosse
Title: *Numerical Simulation in FTIR-Microspectroscopy*
Journal: Proc. of the 1995 EUROSIM Conference, Elsevier Science Publishers B. V. **Vol.:** **Page:** 813-818 **Year:** 1995
4. **Author(s):** K. Taga, B. Mizaikoff, R. Kellner
Title: *Fiber Optic Evanescent Field Sensor for Gaseous Species using MIR Transparent Fibers*
Journal: Fres. J. Anal. Chem. **Vol.:** 348 **Page:** 556-559 **Year:** 1993
3. **Author(s):** B. Mizaikoff, K. Taga, R. Kellner
Title: *Toward Theoretical Limits of FTIR Microscopy for Ultra Thin Organic Layers*
Journal: Appl. Spectrosc. **Vol.:** 47 **Page:** 1476-1483 **Year:** 1993
2. **Author(s):** R. Kellner, B. Mizaikoff, K. Taga, W. Theiß, P. Grosse
Title: *FTIR-Microspectroscopic Detection of Ultra-Thin Organic Layers on Chalcogenide Fibers*
Journal: Fres. J. Anal. Chem. **Vol.:** 346 **Page:** 612-614 **Year:** 1993
1. **Author(s):** B. Mizaikoff, K. Taga, R. Kellner
Title: *FTIR-Microspectroscopic Investigation of Chemisorbed Silanes on IR-Transparent Materials*
Journal: Fres. J. Anal. Chem. **Vol.:** 346 **Page:** 355-357 **Year:** 1993

Books and Book chapters

18. **Author(s):** V. Kokoric, E. Tütüncü, F. Seichter, A. Wilk, P.R. Fortes, I.M. Raimundo Jr., B. Mizaikoff
Title: *Breath Analysis with Mid-Infrared Diagnostics*
Book: Handbook of Optoelectronics (eds J. Dakin), CRC Press
Invited book chapter **Vol.:** In press **Pages:** **Year:** 2015
17. **Author(s):** C. M. Müller, F. Rauh, T. Schädle, M. Schwenk, R. Stach, B. Pejčic, B. Mizaikoff
Title: *Applied Research on Mid-Infrared Spectroscopy for Future Oil, Gas and Mineral Exploration*
Book: Handbook of Optoelectronics (eds J. Dakin), CRC Press
Invited book chapter **Vol.:** In press **Pages:** **Year:** 2015
16. **Author(s):** C. Kranz, B. Mizaikoff
Title: *Gold Nanoparticles as Target Analytes: Characterization and Determination of Gold Nanoparticles*
Book: Gold Nanoparticles in Analytical Chemistry (eds M. Valcárcel and A.I. López-Lorente), Elsevier B.V.
Invited book chapter **Vol.:** 66 **Pages:** 257-300 **Year:** 2014
15. **Author(s):** S.-S. Kim, B. Mizaikoff
Title: *Miniaturized Optical Sensors for Medical Diagnostics*
Book: Handbook of Spectroscopy. Section XIV: Applications 7: Nanooptics; Second, Enlarged Edition (eds G. Gauglitz and D. S. Moore), Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany
Invited book chapter **Vol.:** 4 **Pages:** 1559-1584 **Year:** 2014
14. **Author(s):** X. Wang, S.-S. Kim, A. Wilk, B. Mizaikoff
Title: *Finite Element Modeling of Infrared Sensors*
Book: Chemical Sensors: Simulation and Modeling, Vol. 4, Momentum Press, LLC; Ed. G. Korotcenkov
Invited book chapter **Vol.:** 4 **Page:** 363-404 **Year:** 2013
13. **Author(s):** A. Wilk, B. Mizaikoff
Title: *Spectroscopic Modeling of Mid-Infrared Chemical Sensors*
Book: Chemical Sensors: Simulation and Modeling, Vol. 4, Momentum Press, LLC; Ed. G. Korotcenkov
Invited book chapter **Vol.:** 4 **Page:** 305-362 **Year:** 2013
12. **Author(s):** F. Meier, B. Mizaikoff
Title: *Molecularly Imprinted Polymers as Artificial Receptors*
Book: Artificial Receptors for Chemical Sensors, Wiley-VCH Verlag; Ed. V. Mirsky, A. Yatsimirsky
Invited book chapter **Vol.:** **Page:** 391-437 **Year:** 2011
11. **Author(s):** C. Young, S.-S. Kim, B. Mizaikoff
Title: *Quantum Cascade Laser Based Gas and Liquid Chemical Sensors*
Book: Lasers in Chemistry. Probing and Influencing Matter, Wiley-VCH Verlag; Ed. M. Lackner
Invited book chapter **Vol.:** 1 **Page:** 77-108 **Year:** 2008
10. **Author(s):** J. Wiedemair, B. Mizaikoff, C. Kranz
Title: *Combined Scanning Probe Techniques for In-Situ Electrochemical Imaging at a Nanoscale*
Book: Applied Scanning Probe Methods, Springer Verlag Heidelberg; Ed. B. Bhushan, H. Fuchs, S. Kawata
Invited book chapter **Vol.:** 5 **Page:** 225-261 **Year:** 2007
9. **Author(s):** C. M. Charlton, B. T. Thompson, B. Mizaikoff
Title: *Hollow Waveguide Infrared Spectroscopy and Sensing*
Book: Springer Series on Chemical Sensors and Biosensors, Frontiers in Chemical Sensors, Springer; Ed. G. Orellana, M. C. Moreno-Bondi
Invited book chapter **Vol.:** 3 **Page:** 133-167 **Year:** 2005
8. **Author(s):** A. Molinelli, M. Janotta, B. Mizaikoff
Title: *Molecularly Imprinted Polymers for Biomolecular Recognition*
Book: Protein Nanotechnology: Protocols, Instrumentation and Applications, Humana Press
Invited book chapter **Vol.:** 300 **Page:** 243-254 **Year:** 2005
7. **Author(s):** A. Kueng, C. Kranz, A. Lugstein, E. Bertagnolli, B. Mizaikoff
Title: *Nanoelectrodes Integrated in Atomic Force Microscopy Cantilevers for Imaging of In Situ Enzyme Activity*
Book: Protein Nanotechnology: Protocols, Instrumentation and Applications, Humana Press
Invited book chapter **Vol.:** 300 **Page:** 403-415 **Year:** 2005
6. **Author(s):** C. Kranz, A. Kueng, A. Lugstein, E. Bertagnolli, B. Mizaikoff
Title: *Scanning Micro- and Nanoprobes for Electrochemical Imaging*
Book: Advanced Micro- and Nanosystems: Enabling Technology for MEMS and Nanodevices, John Wiley&Sons Ltd
Invited book chapter **Vol.:** 1 **Page:** 237-287 **Year:** 2004

5. **Author(s):** H. Lohninger, H. Fröhlich, B. Mizaikoff, E. Rosenberg
Title: *Teach/Me – Instrumentelle Analytik*
Book: Interactive CD-ROM, Springer Verlag Inc.
ISBN 3-540-14957-0 **Vol.:** **Page:** **Year:** 2003
4. **Author(s):** G. Holst, B. Mizaikoff
Title: *Optical Fiber Sensors for Environmental Applications*
Book: Handbook of Fiber Optic Sensing Technology: Principles and Application, John Wiley&Sons Ltd, Ed. José Miguel Lopez-Higuerra
Invited book chapter **Vol.:** **Page:** 729-749 **Year:** 2002
3. **Author(s):** B. Mizaikoff, B. Lendl
Title: *Sensor Systems Based on Mid-Infrared Transparent Fibers*
Book: Handbook of Vibrational Spectroscopy, J.M. Chalmers and P.R. Griffiths (Eds), John Wiley & Sons, Ltd
Invited book chapter **Vol.:** 2 **Page:** 1560-1573 **Year:** 2002
2. **Author(s):** B. Lendl, B. Mizaikoff
Title: *Optical Fibers for Mid-Infrared Spectrometry*
Book: Handbook of Vibrational Spectroscopy, J.M. Chalmers and P.R. Griffiths (Eds), John Wiley & Sons, Ltd
Invited book chapter **Vol.:** 2 **Page:** 1541-1550 **Year:** 2002
1. **Author(s):** B. Mizaikoff
Title: *Mid-IR Analysis of Fuel Performance Specifications*
Book: Encyclopedia of Analytical Chemistry, John Wiley&Sons Ltd, Chicester, Ed. Robert A. Meyers
Invited book chapter **Vol.:** **Page:** 6622-6634 **Year:** 2000

Editorials & Proceedings (not or 'lightly' reviewed)**2015**

55. **Author(s):** B. Mizaikoff, X. Wang, M. Sieger, L. Faraone, J. Antoszewski, W. Lei, M. Jetter, P. Michler
Title: *Thin-Film Mid-Infrared Semiconductor Waveguide Technology*
Proc.: IEEE Proceedings COMMAD 2014 **Vol.:** **Page:** 301-302 **Year:** 2015
54. **Author(s):** M.-L. Tercier Waeber, E. Bakker, C. Nardin, S. Mongin, E. Prado, M. Cuartero Botia, B. Mizaikoff, F. Luxenburger, I. Klimant, G. Mistlberger, B. Mueller, P. Van Der Val, M. Figuera, J. Fernandez Sanchez, A. L. Medina Castillo, A. Valero Navarro, J. Schaefer, M. Abdou, A. Novellino, P. D'Angelo, F. Confalonieri, M. Castellano, E. Magi, F. Massa, P. Povero
Title: *FP7-OCEAN-2013 - SCHeMA: integrated in Situ Chemical Mapping Probes*
Proc.: IEEE Proceedings OCEAN 2014 **Vol.:** **Page:** 1-5 **Year:** 2015
53. **Author(s):** B. Mizaikoff
Title: *Kommentar: Das Erfassen der realen Welt*
Proc.: lab&more **Vol.:** 3 **Page:** 40-41 **Year:** 2015
52. **Author(s):** B. Mizaikoff
Title: *Guest Editorial: Sensing the Real World ...*
Proc.: lab&more **Vol.:** 1 **Page:** 1 **Year:** 2015

2014

51. **Author(s):** B. Mizaikoff, X. Wang, M. Sieger, L. Faraone, J. Antoszewski, W. Lei, M. Jetter, P. Michler
Title: *Thin-Film Mid-Infrared Semiconductor Waveguide Technology*
Journal: IEEE proceedings COMMAD 2014 **Vol.:** **Page:** 301-302 **Year:** 2014
50. **Author(s):** I. M. Raimundo Jr, B. Mizaikoff
Title: *Editorial: Analytical Sciences in Brazil*
Journal: Analyst **Vol.:** 139 **Page:** 4399-4400 **Year:** 2014
49. **Author(s):** M. C. Sportelli, D. Hötger, R. A. Picca, K. Manoli, C. Kranz, B. Mizaikoff, L. Torsi, N. Cioffi
Title: *Electrosynthesized Polystyrene Sulphonate-Capped Zinc Oxide Nanoparticles as Electrode Modifiers for Sensing Devices*
Proc.: Proceedings MRS Spring Meeting 2014 **Vol.:** 1675 **Page:** 15-20 **Year:** 2014

2013

48. **Author(s):** L. Leidner, M. Ewald, M. Sieger, B. Mizaikoff, G. Gauglitz
Title: *Migrating the Mach-Zehnder Chemical and Bio-Sensor to the Mid-Infrared Region*
Proc.: Proceedings SPIE Photonics Europe 2013 **Vol.:** 8774 **Page:** 87740S-1-15 **Year:** 2013
47. **Author(s):** P. R. Fortes, A. Wilk, F. Seichter, M. Cajlakovic, S. Koestler, V. Ribitsch, U. Wachter, J. Vogt, P. Radermacher, C. Carter, I. M. Raimundo Jr, B. Mizaikoff
Title: *Combined sensing platform for advanced diagnostics in exhaled mouse breath*
Proc.: Proceedings SPIE Photonics West 2013 **Vol.:** 8570 **Page:** 85700Q-1-9 **Year:** 2013
46. **Author(s):** X. Wang, M. Sieger, B. Mizaikoff
Title: *Toward on-chip mid-infrared chem/bio sensors using quantum cascade lasers and substrate-integrated semiconductor waveguides*
Proc.: Proceedings SPIE Photonics West 2013 **Vol.:** 8631 **Page:** 86312M-1-11 **Year:** 2013

2012

45. **Author(s):** C. Kranz, B. Mizaikoff
Title: *Mikroskopie mit fokussierten Ionenstrahlen*
Proc.: GIT Labor-Fachzeitschrift **Vol.:** 11 **Page:** **Year:** 2012

44. **Author(s):** C. Kranz, B. Mizaikoff
Title: *Multifunktionelle Rastersondenmikroskopie*
Proc.: GIT Labor-Fachzeitschrift **Vol.:** 7 **Page:** **Year:** 2012

2011

43. **Author(s):** C. Kranz, D. Eaton, B. Mizaikoff
Title: *Analytical Challenges in Nanomedicine*
Journal: Anal. and Bioanal. Chem. **Vol.:** 399 **Page:** 2309-2311 **Year:** 2011
42. **Author(s):** F. Rauh, Y. Luzinova, A. Katzir, J. Pfeiffer, B. Mizaikoff
Title: *A Gas Hydrate Autoclave Suitable for In-Situ Fiber Optic Infrared Spectroscopic Studies*
Proc.: Proceedings 7th International Conference on Gas Hydrates 2011 **Vol.:** **Page:** **Year:** 2011

2010

41. **Author(s):** C. Davis, M. Frank, H. Osner, B. Mizaikoff
Title: *Sensors for Breath Analysis*
Journal: IEEE Sensors **Vol.:** 10 **Page:** 3-6 **Year:** 2010

2009

40. **Author(s):** L. Wang, J.-S. Moon, B. Mizaikoff, C. Kranz
Title: *Toward a Combined SECM-IR-ATR System For the Investigation of Conductive Polymers*
Proc.: ECS Transactions **Vol.:** 19 **Page:** 165-169 **Year:** 2009

2008

39. **Author(s):** G. T. Dobbs, Y. Luzinova, Y. Raichlin, A. Katzir, B. Mizaikoff
Title: *Infrared Spectroscopy for Monitoring Gas Hydrates in Aqueous Solution*
Proc.: Proceedings 6th International Conference on Gas Hydrates 2008 **Vol.:** **Page:** **Year:** 2008

2007

38. **Author(s):** S. Truax, K. S. Demirci, J. H. Seo, P. Kurzwaski, Y. Luzinova, A. Hierlemann, B. Mizaikoff, O. Brand
Title: *Gas and Liquid Phase Sensing of Volatile Organics with Disk Microresonators*
Proc.: Proceedings 6th IEEE Sensors Conference 2007 **Vol.:** **Page:** 220-223 **Year:** 2007
37. **Author(s):** J.-F. Masson, C. Kranz, B. Mizaikoff, E. B. Gauda
Title: *Amperometric Microbiosensors for Studying ATP at the Carotid Body*
Proc.: Proceedings 6th IEEE Sensors Conference 2007 **Vol.:** **Page:** 744-747 **Year:** 2007
36. **Author(s):** R. Zhang, S. Wei, B. Mizaikoff
Title: *Selective Recognition of Bile Acids by Molecular Imprints*
Proc.: Proceedings 6th IEEE Sensors Conference 2007 **Vol.:** **Page:** 1048-1051 **Year:** 2007
35. **Author(s):** S.-S. Kim, C. Young, J. Chan, C. Carter, B. Mizaikoff
Title: *Hollow Waveguide Gas Sensors for Mid-Infrared Trace Gas Analysis*
Proc.: Proceedings 6th IEEE Sensors Conference 2007 **Vol.:** **Page:** 1267-1270 **Year:** 2007
34. **Author(s):** S.-Y. Cho, G. Dobbs, N. M. Jokerst, B. Mizaikoff
Title: *Surface Customized Optical Microresonator Sensors for Integrated Chip-Scale Portable Sensing Applications*
Proc.: Proceedings 6th IEEE Sensors Conference 2007 **Vol.:** **Page:** 1275-1278 **Year:** 2007

33. **Author(s):** C. Young, S. Hartwig, A. Lambrecht, S.-S. Kim, B. Mizaikoff
Title: Optimizing *Gas Sensors based on Quantum Cascade Lasers and Photonic Bandgap Hollow Waveguides*
Proc.: Proceedings 6th IEEE Sensors Conference 2007 **Vol.:** **Page:** 1354-1348 **Year:** 2007

2006

32. **Author(s):** C. Charlton, B. Mizaikoff
Title: *Sensing Trace Gases with Quantum Cascade Lasers*
Proc.: Photonics Spectra **Vol.:** April **Page:** 64-68 **Year:** 2006

2005

31. **Author(s):** H. Shin, P. J. Hesketh, C. Kranz, D. Rudolph, B. Mizaikoff
Title: *A Novel Approach for Batch Fabrication of Bifunctional AFM-SECM Probes*
Proc.: Proceedings ASME International Mechanical Engineering Congress and RD & Expo, IMECE 2005 **Vol.:** **Page:** 79424 **Year:** 2005
30. **Author(s):** T. M. Patz, A. Doraiswamy, R. Narayan, N. Menegazzo, C. Kranz, B. Mizaikoff, R. Modi, D. B. Chrisey
Title: *Matrix Assisted Pulsed Laser Evaporation of Poly (D, L)-Lactic Acid Films*
Proc.: MRS Proceedings, Nanoscale Materials Science in Biology and Medicine; C.T. Laurencin, E. Botchwey; Eds. **Vol.:** 845 **Page:** 249-254 **Year:** 2005
29. **Author(s):** T. M. Patz, A. Doraiswamy, R. Narayan, N. Menegazzo, C. Kranz, B. Mizaikoff, Y. Zhong, R. Bellamkonda, R. Modi, D. B. Chrisey
Title: *Matrix assisted pulsed laser evaporation of dexamethasone thin films*
Proc.: MRS Proceedings, Nanoscale Materials Science in Biology and Medicine; C.T. Laurencin, E. Botchwey; Eds. **Vol.:** 845 **Page:** 77-81 **Year:** 2005

2004

28. **Author(s):** C. Kranz, A. Kueng, B. Mizaikoff
Title: *Amperometric Biosensors and Potentiometric pH-Microsensors integrated into AFM Tips*
Proc.: Proceedings 3rd IEEE Sensors Conference 2004 **Vol.:** 1 **Page:** 1226-1227 **Year:** 2004
27. **Author(s):** J. M. Cathcart, B. Mizaikoff, T. Orlando, R. D. Bock, M. Karlowatz, R. Campbell
Title: *Phenomenological investigations for understanding spectral and polarimetric signatures of landmines*
Proc.: Proc. SPIE, Detection and Remediation Technologies for Mines and Minelike Targets IX; Russell S. Harmon, John H. Holloway, Jr., J. T. Broach; Eds. **Vol.:** 5415 **Page:** 230-240 **Year:** 2004
26. **Author(s):** M. Karlowatz, A. Aleksandrov, T. Orlando, J. M. Cathcart, B. Mizaikoff
Title: *The Influence of Wetting and Drying Cycles on Mid-Infrared Attenuated Total Reflection Spectra of Quartz: Understanding Spectroscopy of Disturbed Soil*
Proc.: Proc. SPIE, Detection and Remediation Technologies for Mines and Minelike Targets IX; Russell S. Harmon, John H. Holloway, Jr., J. T. Broach; Eds. **Vol.:** 5415 **Page:** 629-637 **Year:** 2004
25. **Author(s):** J. M. Cathcart, R. Campbell, R. Bock, M. Karlowatz, B. Mizaikoff, T. Orlando
Title: *Impact of shallow buried objects on the spectral properties of terrain features*
Proc.: Proc. SPIE, Detection and Remediation Technologies for Mines and Minelike Targets VIII; Russell S. Harmon, John H. Holloway, Jr., J. T. Broach; Eds. **Vol.:** 5089 **Page:** 614-624 **Year:** 2004

2003

24. **Author(s):** A. Molineli, B. Mizaikoff
Title: *Molecularly imprinted solid phase extraction for improved food and beverage analysis*
Proc.: Lab Plus International **Vol.:** 9/10 **Page:** 8-13 **Year:** 2003

23. **Author(s):** C. Charlton, B. Mizaikoff
Title: *Hollow Waveguide Infrared Gas Sensing for Biomedical Applications*
Proc.: Proc. SPIE, Photonics West, Optical Fibers and Sensors for Medical Applications III, Israel Gannot; Ed. **Vol.:** 4957 **Page:** 116-123 **Year:** 2003

2002

22. **Author(s):** B. Mizaikoff, C. Kranz
Title: *Interfacing Chemistry with Microdevices: Potential and Challenges of Chemical Microsensors*
Proc.: Proc. ASDAM 2002 **Vol.:** **Page:** 307-316 **Year:** 2002
21. **Author(s):** H. Steiner, K. Staubmann, R. Allabashi, N. Fleischmann, A. Katzir, Y. Reichlin, B. Mizaikoff
Title: *Online Sensing of Volatile Organic Compounds in Groundwater using Mid-Infrared Fibre Optic Evanescent Wave Spectroscopy: A Pilot Scale Test*
Proc.: Proc. 'Automation in Water Quality Monitoring 2002' **Vol.:** **Page:** 89-94 **Year:** 2002
20. **Author(s):** B. Mizaikoff
Title: *Instrumentation, Novel Sensors and Measurement Concepts: Infrared Optical Sensors for Water Quality Monitoring*
Proc.: Proc. 'Automation in Water Quality Monitoring 2002' **Vol.:** **Page:** 1-8 **Year:** 2002
19. **Author(s):** M. Janotta, B. Mizaikoff
Title: *Recent Developments in Liquid Phase Mid-Infrared Sensor Technology*
Proc.: Proc. SPIE, Photonics West, Optical Fibers and Sensors for Medical Applications II, Israel Gannot; Ed. **Vol.:** 4616 **Page:** 1-8 **Year:** 2002
18. **Author(s):** F. Vogt, B. Mizaikoff, M. Tacke
Title: *Numerical Methods for Accelerating the PCA of Large Data Sets Applied to Hyperspectral Imaging*
Proc.: Proc. SPIE, Photonics East, Advanced Environmental Sensing Technology II, Tuan Vo-Dinh, Ed. **Vol.:** 4576 **Page:** 215-225 **Year:** 2002

2001

17. **Author(s):** B. Mizaikoff, C. Kranz, L. Hvozdar, M. Janotta
Title: *Current Applications and New Trends in Mid-Infrared Sensor Technology and Integrated Scanning Probe Sensors*
Proc.: Proc. IEEE, SICON '01 **Vol.:** **Page:** 208-213 **Year:** 2001
16. **Author(s):** E. L. H. Heintz, C. Kranz, B. Mizaikoff, H.-S. Noh, P. Hesketh, A. Lugstein, E. Bertagnolli
Title: *Characterization of Parylene Coated Combined Scanning Probe Tips for In-Situ Electrochemical and Topographical Imaging*
Proc.: Proc. IEEE, Nanotechnology '01 **Vol.:** **Page:** **Year:** 2001
15. **Author(s):** B. Mizaikoff
Title: *Recent Trends in Mid-Infrared Sensing*
Proc.: Proc. SPIE, Photonics West, Optical Fibers and Sensors for Medical Applications, Israel Gannot; Ed. **Vol.:** 4253 **Page:** 76-83 **Year:** 2001
14. **Author(s):** M. Jakusch, B. Mizaikoff
Title: *Selective Polymer Materials: Absolute Determination of Their Sorption Properties*
Proc.: Proc. SPIE, Photonics East, Advanced Environmental and Chemical Sensing Technology, Tuan Vo-Dinh; Stephanus Büttgenbach; Eds. **Vol.:** 4205 **Page:** 93-98 **Year:** 2001
13. **Author(s):** B. Mizaikoff, M. Karlowatz, M. Kraft
Title: *Mid-Infrared Sensors for Marine Monitoring*
Proc.: Proc. SPIE, Photonics East, Fiber Optic Sensor Technology II, Brian Culshaw; James A. Harrington; Michael A. Marcus; Mohammed Saad; Eds. **Vol.:** 4204 **Page:** 263-273 **Year:** 2001
12. **Author(s):** L. Hvozdar, S. Gianordoli, G. Strasser, W. Schrenk, K. Unterrainer, E. Gornik, V. Pustogow, Ch. S. S. S. Murthy, B. Mizaikoff, A. Inberg, N. Croitoru
Title: *Gas Absorption Spectroscopy using GaAs/AlGaAs Quantum Cascade Lasers and a Hollow Waveguide Absorption Cell*
Proc.: Proc. SPIE, Photonics East, Fiber Optic Sensor Technology II, Brian Culshaw; James A. Harrington; Michael A. Marcus; Mohammed Saad; Eds. **Vol.:** 4204 **Page:** 255-262 **Year:** 2001

2000 and before

11. **Author(s):** H. Schmidt, H.-D. Kronfeldt, H. Amann, B. Mac Craith, M. Le Haitre, M. Leclercq, E. Bernabeu, B. Mizaikoff, D. Grant
Title: *Spectroscopy Using Optical Fibers in the Marine Environment*
Proc.: Proc. EurOCEAN '00 **Vol.:** **Page:** **Year:** 2000
10. **Author(s):** B. Mizaikoff
Title: *Mid-Infrared Fiberoptic Sensors – Potential and Perspectives*
Proc.: Proc. SPIE, Photonics East, Infrared Optical Fibers and Their Applications, Mohammed Saad; James A. Harrington; Eds **Vol.:** 3849 **Page:** 7-18 **Year:** 1999
9. **Author(s):** M. Kraft, M. Jakusch, B. Mizaikoff, A. Katzir
Title: *Optimised Configurations for Mid-Infrared Fibre-Optic Sensors in the Marine Environment*
Proc.: Proc. SPIE, Photonics East, Infrared Optical Fibers and Their Applications, Mohammed Saad; James A. Harrington; Eds **Vol.:** 3849 **Page:** 28-36 **Year:** 1999
8. **Author(s):** M. Kraft, M. Jakusch, B. Mizaikoff
Title: *A Miniaturised Fourier-Transform Infrared Spectrometer For Seawater Monitoring*
Proc.: Proc. IEEE, OCEANS '98, IEEE Catalog Number 98CH36259, ISBN: 0-7803-5048-0 **Vol.:** 3 **Page:** 1701-1703 **Year:** 1998
7. **Author(s):** B. Mizaikoff, M. Kraft, M. Jakusch
Title: *Water Monitoring Using Infrared Fiber Optic Sensors*
Proc.: Proc. IEEE, OCEANS '98, IEEE Catalog Number 98CH36259, ISBN: 0-7803-5048-0 **Vol.:** 3 **Page:** 1401-1404 **Year:** 1998
6. **Author(s):** H.-D. Kronfeldt, H. Schmidt, H. Amann, B. Mac Craith, M. Le Haitre, M. Leclercq, E. Bernabeu, B. Mizaikoff, D. Grant
Title: *Technical Elements and Potential Application of Spectroscopy for Ocean Monitoring*
Proc.: Proc. IEEE, OCEANS '98, IEEE Catalog Number 98CH36259, ISBN: 0-7803-5048-0 **Vol.:** 3 **Page:** 1780-1784 **Year:** 1998
5. **Author(s):** H.-D. Kronfeldt, H. Schmidt, H. Amann, M. Le Haitre, B. Mac Craith, B. Mizaikoff, M. Leclercq, E. Bernabeu, D. Grant
Title: *Spectroscopy Using Optical Fibers in the Marine Environment*
Proc.: Proc. 3rd MAST Conference (EU) **Vol.:** **Page:** 1559-1563 **Year:** 1998
4. **Author(s):** M. Jakusch, B. Mizaikoff, R. Kellner
Title: *Optimized Sensitive Coatings for MIR Fiber Optic Sensors*
Proc.: Proc. SPIE **Vol.:** 3105 **Page:** 283-288 **Year:** 1997
3. **Author(s):** R. Kellner, R. Göbel, R. Götz, B. Lendl, B. Mizaikoff, M. Tacke, A. Katzir
Title: *Recent Progress on Mid-IR Sensing with Optical Fibers*
Proc.: Proc. SPIE **Vol.:** 2508 **Page:** 212-223 **Year:** 1995
2. **Author(s):** B. Mizaikoff, R. Götz, R. Kellner
Title: *IR Fiber Optic Evanescent Field Sensors for Gas Monitoring*
Proc.: Proc. SPIE **Vol.:** 2508 **Page:** 253-264 **Year:** 1995
1. **Author(s):** R. Kellner, B. Mizaikoff, K. Taga, W. Theiss, P. Grosse
Title: *FTIR-Microscopy of Organic Monolayers in Transmission*
Proc.: Proc. SPIE **Vol.:** 2089 **Page:** 164-165 **Year:** 1993