

Dr. Boris Mizaikoff

CURRICULUM VITAE

Section 1: Curriculum Vitae

Section 2: List of Publications



Boris Mizaikoff

February 2017

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
Germany

Phone: +49-731-50-22750
FAX: +49-731-50-22763
Email: boris.mizaikoff@uni-ulm.de, boris.mizaikoff@me.com
WWW: uni-ulm.de/iabc
Admin. Assist.: M. Bowman, +49-731-50-22751

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

2016	<i>RSC Emerging Technologies Award</i> by the Royal Society of Chemistry (RSC)
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)
2014-present	Editorial Board of <i>Scientific Reports</i>
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, etc.), 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 270+ peer-reviewed publications, 16 patents, and 100+ plenary, keynote, and invited contributions at scientific conferences; his current h-index is 39 (Web of Science).

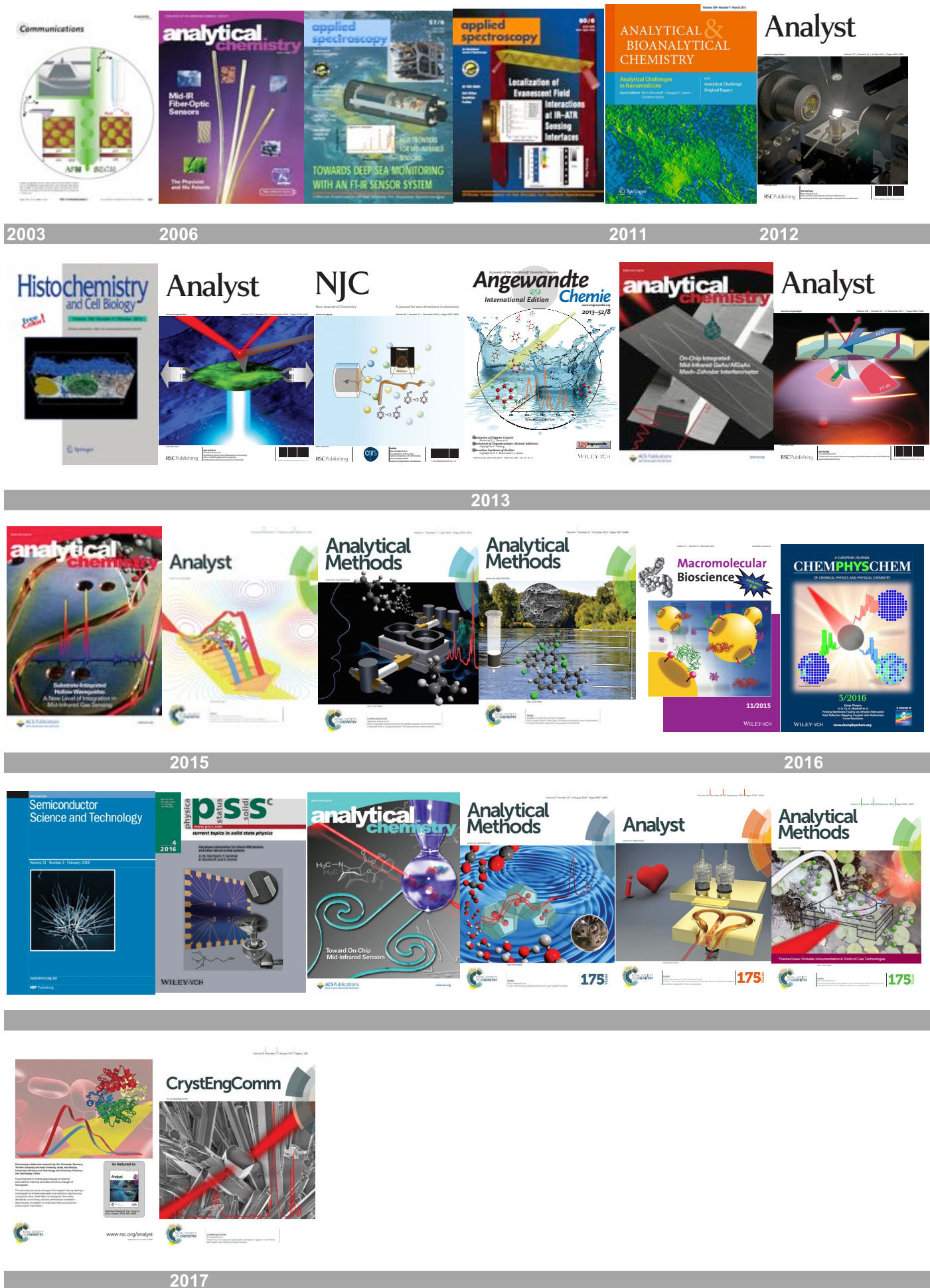
REVIEWER

<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., Angew. 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

SECTION 2

List of Publications

COVER GALLERY



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 |

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|----|-------------------|--|--------------|------------|
| 3. | 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: | USA patent granted | No: | 10/297627 |
| | | | Year: | 2002 |
| 2. | 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: | Austrian patent granted | No: | AT 410.032 |
| | | | Year: | 2001 |
| 1. | 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: | Austrian patent granted | No: | AT 410.845 |
| | | | Year: | 2001 |

Peer-reviewed Publications

2017 accepted or in press (11 manuscripts currently in review)

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|------|-------------------|---|--------------|----------|-------------|-------------------|
| 272. | Author(s): | P. Knittel, N. Hibst, B. Mizaikoff, S. Strehle, C. Kranz | | | | |
| | Title: | <i>Focused Ion Beam-Assisted Fabrication of Soft High-Aspect-Ratio Silicon Nanowire AFM Probes for Mapping Nanomechanical Properties</i> | | | | |
| | Journal: | Ultramicroscopy | Vol.: | Accepted | DOI: | Year: 2016 |
| | | | | | | |
| 271. | Author(s): | H. Schmidt, C. Michel, P. Braubach, M. Fauler, D. Neubauer, K. E. Thompson, M. Frick, B. Mizaikoff, P. Dietl, O. H. Wittekindt | | | | |
| | Title: | <i>Water Permeability Adjusts Resorption in Lung Epithelia to Increased Apical Surface Liquid Volumes</i> | | | | |
| | Journal: | American Journal of Respiratory Biology | Vol.: | Accepted | DOI: | Year: 2016 |
| | | | | | | |
| 270. | Author(s): | M. Sieger, G. Kos, M. Sulyok, M. Godejohann, R. Krska, Boris Mizaikoff | | | | |
| | Title: | <i>Portable Infrared Laser Spectroscopy for On-site Mycotoxin Analysis</i> | | | | |
| | Journal: | Scientific Reports | Vol.: | Accepted | DOI: | Year: 2016 |
| | | | | | | |
| 269. | Author(s): | F. Seichter, J. Vogt, P. Radermacher, B. Mizaikoff | | | | |
| | Title: | <i>Response-surface Fits and Calibration Transfer for the Correction of the Oxygen Effect in the Quantification of Carbon Dioxide via FTIR Spectroscopy</i> | | | | |
| | Journal: | Analytica Chimica Acta | Vol.: | Accepted | DOI: | Year: 2017 |
| | | | | | | |
| 268. | Author(s): | O. Bibikova, J. Haas, A. I. López-Lorente, A. Popov, M. Kinnunen, I. Meglinski, B. Mizaikoff | | | | |
| | Title: | <i>Towards Enhanced Optical Sensor Performance: SEIRA and SERS with Plasmonic Nanostars</i> | | | | |
| | Journal: | Analyst | Vol.: | Accepted | DOI: | Year: 2017 |
| | | | | | | |
| 267. | Author(s): | T. Sandner, A. M. Steinbach, P. Knittel, T. Diemant, R. J. Behm, S. Strehle, C. Kranz, B. Mizaikoff | | | | |
| | Title: | <i>Silanization of Sapphire Surfaces for Optical Sensing Applications</i> | | | | |
| | Journal: | ACS Sensors | Vol.: | Accepted | DOI: | Year: 2017 |
| | | | | | | |
| 266. | Author(s): | N. A. Karaseva, B. Pluhar, E. A. Beliaeva, T. N. Ermolaeva, B. Mizaikoff | | | | |
| | Title: | <i>Synthesis and Application of Molecularly Imprinted Polymers for Trypsin Piezoelectric Sensors</i> | | | | |
| | Journal: | ACS Sensors | Vol.: | Accepted | DOI: | Year: 2017 |
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| 265. | Author(s): | M. Schwenk, A. Katzir, B. Mizaikoff | | | | |
| | Title: | <i>Mid-Infrared Fiberoptic Evanescent Field Spectroscopy for In-Situ Monitoring of Tetrahydrofuran Hydrate Formation and Dissociation</i> | | | | |
| | Journal: | Analyst | Vol.: | Accepted | DOI: | Year: 2016 |
| | | | | | | |
| 264. | Author(s): | A. I. López-Lorente, J. Izquierdo, C. Kranz, B. Mizaikoff | | | | |
| | Title: | <i>Boron-Doped Diamond Modified with Gold Nanoparticles for the Characterization of Bovine Serum Albumin</i> | | | | |
| | Journal: | Vibrational Spectroscopy | Vol.: | Accepted | DOI: | Year: 2016 |

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|------|-------------------|---|--------------|-----|-----------------------|-------------------|
| 263. | Author(s): | A. I. López-Lorente, P. Wang, B. Mizaikoff | | | | |
| | Title: | <i>Towards Label-Free Mid-Infrared Protein Assays: In-Situ Formation of Bare Gold Nanoparticles for Surface Enhanced Infrared Absorption Spectroscopy of Bovine Serum Albumin</i> | | | | |
| | Journal: | Microchimica Acta | Vol.: | 184 | Pages: 453-462 | Year: 2016 |
| | | | | | | |
| 262. | Author(s): | S. Singh, N. Kumar, M. Kumar, Jyoti, A. Agarwal, B. Mizaikoff | | | | |
| | Title: | <i>Electrochemical Sensing and Remediation of 4-Nitrophenol Using Bio-synthesized Copper Oxide Nanoparticles</i> | | | | |
| | Journal: | Chemical Engineering Journal | Vol.: | 313 | Pages: 283-292 | Year: 2017 |
| | | | | | | |
| 261. | Author(s): | F. Seichter, J. Vogt, P. Radermacher, B. Mizaikoff | | | | |
| | Title: | <i>Nonlinear Calibration Transfer based on Hierarchical Bayesian Models and Lagrange Multipliers: Error Bounds of Estimates via Monte Carlo - Markov Chain Sampling</i> | | | | |
| | Journal: | Analytica Chimica Acta | Vol.: | 951 | Pages: 32-45 | Year: 2017 |
| | | | | | | |
| 260. | Author(s): | R. Stach, P. Krebs, F. Jones, B. Mizaikoff | | | | |
| | Title: | <i>Observing Non-classical Crystallisation Processes in Gypsum via Infrared Attenuated Total Reflectance Spectroscopy</i> | | | | |
| | Journal: | CrystalEngComm | Vol.: | 19 | Pages: 14-17 | Year: 2017 |

2016

- 259. Author(s):** G. Kos, M. Sieger, D. McMullin, T. Öner, B. Mizaikoff, R. Krska
Title: *A Novel Chemometric Classification for FTIR Spectra of Mycotoxin-contaminated Maize and Peanuts at Regulatory Limits*
Journal: Food Additives and Contaminants **Vol.:** 33 **Pages:** 1596-1607 **Year:** 2016
- 258. Author(s):** D. Rudolph, D. Bates, T. J. DiChristina, B. Mizaikoff, C. Kranz
Title: *Detection of Metal-Reducing Enzyme Complexes by Scanning Electrochemical Microscopy*
Journal: Electroanalysis **Vol.:** 28 **Pages:** 2459-2466 **Year:** 2016
- 257. Author(s):** S. Singh, V. Kumar Meena, B. Mizaikoff, S. P. Singh, C. R. Suri
Title: *Electrochemical Sensing of Nitro-Aromatic Explosive Compounds using Silver Nanoparticles modified Electrochips*
Journal: Analytical Methods **Vol.:** 8 **Pages:** 7159-7165 **Year:** 2016
- 256. Author(s):** R. Lu, W.-W. Li, A. Katzir, Y. Raichlin, B. Mizaikoff, H.-Q. Yu
Title: *Fourier Transform Infrared Spectroscopy on External Perturbations inducing Secondary Structure changes of Hemoglobin*
Journal: Analyst **Vol.:** 141 **Pages:** 6061-6067 **Year:** 2016
- 255. Author(s):** E. Tütüncü, V. Kokoric, R. Szedlak, D. MacFarland, T. Zederbauer, H. Detz, A. M. Andrews, W. Schrenk, G. Strasser, B. Mizaikoff
Title: *Advanced Gas Sensors based on Substrate-Integrated Hollow Waveguides and Dual-Color Ring Quantum Cascade Lasers*
Journal: Analyst **Vol.:** 141 **Pages:** 6202-6207 **Year:** 2016
- 254. Author(s):** T. Schaedle, B. Mizaikoff
Title: *Mid-Infrared Waveguides – A Perspective*
Journal: Applied Spectroscopy **Vol.:** 70 **Pages:** 1625-1638 **Year:** 2016
- 253. Author(s):** Á. I. López-Lorente, B. Mizaikoff
Title: *Recent Advances on the Characterization of Nanoparticles using Infrared Spectroscopy*
Journal: Trends in Analytical Chemistry **Vol.:** 84 **Pages:** 97-106 **Year:** 2016
- 252. Author(s):** J. Haas, R. Stach, M. Sieger, Z. Gashi, M. Godejohann, B. Mizaikoff
Title: *Sensing Chlorinated Hydrocarbons via Miniaturized GaAs/AlGaAs Thin-Film Waveguide Flow Cells Coupled to Quantum Cascade Lasers*
Journal: Analytical Methods **Vol.:** 8 **Pages:** 6602-6606 **Year:** 2016
- 251. Author(s):** V. Kokoric, P.A. Wissel, A. Wilk, B. Mizaikoff
Title: *muciPRECON: Multichannel Preconcentrators for Portable Mid-Infrared Hydrocarbon Gas Sensors*
Journal: Analytical Methods **Vol.:** 8 **Pages:** 6645-6650 **Year:** 2016
- 250. Author(s):** R. L. Ribessi, T. de A. Neves, J. J. R. Rohwedder, C. Pasquini, I. M. Raimundo Jr., A. Wilk, V. Kokoric, B. Mizaikoff
Title: *iHEART: A Miniaturized Near-Infrared In-Line Gas Sensor Using Heart-Shaped Substrate-Integrated Hollow Waveguides*
Journal: Analyst **Vol.:** 141 **Pages:** 5298-5303 **Year:** 2016
- 249. Author(s):** J. Izquierdo, B. Mizaikoff, C. Kranz
Title: *Surface-Enhanced Infrared Spectroscopy on Boron-Doped Diamond Modified with Gold Nanoparticles for Spectroelectrochemical Analysis*
Journal: Physica Status Solidi A: Applications and Materials Science **Vol.:** 8 **Pages:** 2056-2062 **Year:** 2016
- 248. Author(s):** Á. I. López-Lorente, P. Wang, M. Sieger, E. V. Catalan, M. Karlsson, F. Nikolajeff, L. Österlund, B. Mizaikoff
Title: *Mid-Infrared Thin-Film Diamond Waveguides Combined with Tunable Quantum Cascade Lasers for Analyzing the Secondary Structure of Proteins*
Journal: Physica Status Solidi A: Applications and Materials Science **Vol.:** 8 **Pages:** 2117-2123 **Year:** 2016
- 247. Author(s):** S. Shabayek, R. Bauer, S. Mauerer, B. Mizaikoff, B. Spellerberg
Title: *A Streptococcal NRAMP Homologue is Crucial for the Survival of Streptococcus Agalactiae under low pH Conditions*
Journal: Molecular Microbiology **Vol.:** 100 **Pages:** 589-606 **Year:** 2016
- 246. Author(s):** M. Schwenk, A. Katzir, B. Mizaikoff
Title: *In-situ Monitoring of Additives during CO₂ Gas Hydrate Formation*
Journal: Analytical Methods **Vol.:** 8 **Pages:** 5897-5905 **Year:** 2016

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|------|--|------------------|-------------------------|-------------------|
| 245. | Author(s): P. Knittel, B. Mizaikoff, C. Kranz
Title: <i>Simultaneous Nanomechanical and Electrochemical Mapping: Combining Peak Force Tapping Atomic Force Microscopy with Scanning Electrochemical Microscopy</i>
Journal: Analytical Chemistry | Vol.: 88 | Pages: 6174-6178 | Year: 2016 |
| 244. | Author(s): I. J. Gomes da Silva, E. Tütüncü, M. Nägele, P. Fuchs, M. Fischer, I. M. Raimundo Jr, B. Mizaikoff
Title: <i>Sensing Hydrocarbons with Interband Cascade Lasers and Substrate-Integrated Hollow Waveguides</i>
Journal: Analyst | Vol.: 141 | Pages: 4432-4437 | Year: 2016 |
| 243. | Author(s): E. Tütüncü, M. Nägele, P. Fuchs, M. Fischer, B. Mizaikoff
Title: <i>iHWG-ICL: Methane Sensing with Substrate-Integrated Hollow Waveguides Directly Coupled to Interband Cascade Lasers</i>
Journal: ACS Sensors | Vol.: 1 | Pages: 847-851 | Year: 2016 |
| 242. | Author(s): J. Haas, B. Mizaikoff
Title: <i>Advances in Mid-Infrared Spectroscopy for Chemical Analysis</i>
Journal: Annual Reviews Analytical Chemistry | Vol.: 9 | Pages: 45-68 | Year: 2016 |
| 241. | 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.: 4 | Pages: 4462-4469 | Year: 2016 |
| 240. | Author(s): C. M. Frey, A. Eifert, H. Schütz, H. Barth, B. Mizaikoff, C. Kranz
Title: <i>Macroscopic and Microscopic Electrochemical Investigation of Clostridium Botulinum C2IIa Embedded in Supported Lipid Membranes</i>
Journal: Electrochimica Acta | Vol.: 209 | Pages: 341-349 | Year: 2016 |
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