

Curriculum vitae :**PERSONAL INFORMATION**

Family name, First names: Mikosch, Jochen Andreas

Date of birth: 25.08.1978

Nationality: German

Civil status: Married, 3 children (*2016, *2017, *2020)

• EDUCATION

03/2008 Doctoral degree in the natural sciences (grade: “summa cum laude”)
Thesis: “Dynamics of Anion-Molecule Reactions at Low Energy”

PhD studies at Max-Planck-Institut für Kernphysik, Heidelberg
& Department of Physics, University of Freiburg, Germany
with Priv.-Doz. Dr. R. Wester & Prof. Dr. M. Weidemüller

06/2002 Certificate of Advanced Studies in Mathematics & Master of Advanced Studies
University of Cambridge, Cambridge, England
Essay: ‘Warped Accretion Discs’

• CURRENT POSITION

Since

11/2013 Research Group Leader,
Project Coordinator for Project 2.2: ‘Strong field few body physics’ (since 2020)
Max-Born-Institute for Nonlinear Optics and Short Pulse Spectroscopy, Berlin, Germany
Division A: Attosecond Science

• PREVIOUS POSITIONS

2008 Research Associate, National Research Council, Ottawa, Canada
– 2013 Molecular Photonics Group, Prof. Dr. A. Stolow
((time-resolved) photoelectron spectroscopy & molecular alignment)

• FELLOWSHIPS AND AWARDS

2009 – 2011 Feodor Lynen Fellowship (Humboldt Society)
2008 Finalist at the AMOP Dissertation Prize Symposium
2006 Research Intership in Science and Engineering (RISE), DAAD
1998 – 2002 Studienstiftung des Deutschen Volkes

• SUPERVISION OF GRADUATE STUDENTS

2014 – 5 PhD Students: Branchi, Schell, Drescher, Reininger, Galbraith
3 Master Students: Merkel, Freyse, Drescher
2 Summer Interns: Dickson, Kirks

• TEACHING ACTIVITIES

09/2019 ‘Atoms and Molecules in Intense Laser Fields’, tutorial, ASPIRE ITN
WS 2018/19 Ultrafast Laserphysics (with Vrakking, Kornilov), lecture, FU Berlin

2013 Offer of a Lecturer position, University College London, Chemistry Department (declined)

- **PAPER REFEREEING**

Referee for Appl.Phys.B, Chem.Phys., ChemPhysChem, EPJD,
J.Phys.B, Phys.Chem.Chem.Phys., J.Chem.Phys., Nature Comm.
Rev.Sci.Instr., Phys. Rev. A, Phys. Rev. Lett.

Referee for Agence nationale de la recherche (ANR), France

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

2002 - Deutsche Physikalische Gesellschaft

- **MAJOR COLLABORATIONS (past and present)**

Bill Hase, Texas Tech University (USA)

Markus Kowalewski & Regina de Vivie-Riedle, University of Stockholm / LMU München

Horst Köppel & Alexander Kuleff, University of Heidelberg (Germany)

Ken Schafer & Mette Gaarde, Louisiana State University (USA)

Andrew Orr-Ewing & Mike Ashfold, University of Bristol (UK)

Varun Makhija, University of Mary Washington (USA)

Valerie Blanchet & Yann Mairesse, CELIA, Bordeaux (France)

Nirit Dudovich, Weizmann Institute, Rehovot (Israel)

Dieter Gerlich, Juraj Glosik, University of Chemnitz / Charles University Prague (Czech Republic)

- **INVITED PRESENTATIONS**

37 invited presentations, of these 22 at international conferences

2020 (summer conferences cancelled/postponed due to Corona pandemic):

- June, 8-12: Int. Meeting on Atomic & Molecular Phys. & Chemistry (IMAMPC), Leysin (Switzerland)
- June, 14-18: GRC on Multiphoton Processes, Smithfield, RI (USA)
- July, 13-17: Annual International Laser Physics Workshop (LPHYS20), Lyon (France)

2019:

- April, 11: Transient States of Matter, University of Rostock
- July, 1-5: International Conference on Attosecond Science and Technology, Szeged (Hungary)
- July, 7-12: Dynamics of Molecular Collisions, Big Sky (USA)

- **MISCELLANEOUS**

2015 - organization of the monthly 2.1/2.2 project seminar at MBI
Time-Resolved XUV Science and Strong-Field Few-Body Physics

Research Highlight article in intro section of MBI's annual report: 2016, 2017, 2018, 2019
(selected by directorial board)

Achievements track-record

- **CURRENT AND PREVIOUS RESEARCH ACTIVITIES**

- Strong Laser Field Spectroscopy of Atoms and Molecules
- Spatial Laser-Alignment of Molecules
- Transient XUV Absorption Spectroscopy of Photochemical and Attosecond Dynamics
- Time-Resolved Photoelectron and Ion Spectroscopy
- Crossed Beam Reactive Scattering
- Reaction Dynamics in cryogenic RF Ion Traps

- **PUBLICATION OVERVIEW**

- 38 publications in international peer-reviewed scientific journals:
2x Science, 1x Science Adv., 1x Nature, 2x NatureComm., 5x Phys.Rev.Lett.,
1x J.Am.Chem.Soc., 2x J.Chem.Phys. Communications, 4x J.Chem.Phys., 3x Phys.Rev.A,
2x J.Mod.Optics, 1x Phil.Trans.R.Soc.A, 2x J.Phys.B, 1x Appl.Phys.B, 1x NewJ.Phys.
3x PCCP, 1x Int.Rev.Phys.Chem., 3x J.Phys.Chem.A, 2x J.Phys.Chem.Lett., 1x Acc.Chem.Res.
- 9 are corresponding authorships
- 12 are 1st authorships
- 2 were featured in “News & Views” of Science Magazine,
- 1 was selected as “Hot Topic” in PCCP,
- 1 was selected as “Editor's choice of the year”
in J.Chem.Phys
- 6 peer-reviewed conference proceedings
- 2 review articles (Int.Rev.Phys.Chem., Acc.Chem.Res.)
- 1 cover page (J.Am.Chem.Soc.)
- number of citations: 1443 (Web of Science), 1910 (google scholar)
- h-index: 21 (Web of Science), 25 (google scholar)

- **THIRD-PARTY FUNDING**

2019:

- Full angle-differential Electron Rescattering in the Molecular Frame
Laserlab Europe
17.06kEUR
- RISE scholarship (Research Internship for Science and Engineering)
Deutscher Akademischer Austauschdienst (DAAD)
3.5kEUR

2018:

- Ionization Channel-Resolved Molecular Orbital Imprint in Laser-Driven Electron Rescattering
Deutsche Forschungsgemeinschaft (DFG) within the Priority Program 1840
(Quantum Dynamics in Tailored Intense Fields)
428.3kEUR

2017 and older:

- Impulsfond zur Einreichung eines ERC Starting Grants
Leibniz Gesellschaft
5kEUR

- Feodor-Lynen post-doctoral fellowship
Alexander von Humboldt Foundation
75kEUR

- **LIST OF 10 SELECTED PUBLICATIONS (reverse order, • applicant as corresp. author)**

- [10] L. Drescher, G. Reitsma, T. Witting, S. Patchkovskii, J. Mikosch•, and M. J. J. Vrakking
State-Resolved Probing of Attosecond Timescale Molecular Dipoles
J. Phys. Chem. Lett. **10**, 265 (2019)
- [9] L. Drescher, O. Kornilov, T. Witting, G. Reitsma, N. Monserud, A. Rouzee, J. Mikosch,
M. J. J. Vrakking, and B. Schuette
Extreme-ultraviolet refractive optics
Nature **564**, 91 (2018)
- [8] F. Schell, T. Bredtmann, C. P. Schulz, S. Patchkovskii, M. J. J. Vrakking, and J. Mikosch•
Molecular Orbital Imprint in Laser-Driven Electron Recollision
Science Advances **4**, eaap8148 (2018)
- [7] M.C.E. Galbraith, S. Scheit, N. V. Golubev, G. Reitsma, N. Zhavoronkov, V. Despre,
F. Lepine, A. I. Kuleff, M.J.J. Vrakking, O. Kornilov, H. Köppel, and J. Mikosch•
Few-femtosecond passage of conical intersections in the benzene cation
Nature Communications **8**, 1018 (2017)
- [6] L. Drescher, M.C.E. Galbraith, G. Reitsma, J. Dura, N. Zhavoronkov, S. Patchkovskii,
M.J.J. Vrakking, and J. Mikosch•
Communication: XUV Transient Absorption Spectroscopy of Iodomethane
and Iodobenzene Photodissociation
J. Chem. Phys. **145**, 011101 (2016)
- [5] J. Mikosch, J. X. Zhang, S. Trippel, C. Eichhorn, R. Otto, R. Sun, W. A. de Jong,
M. Weidemüller, W. L. Hase, and R. Wester
Indirect Dynamics in a Highly Exoergic Substitution Reaction
J. Am. Chem. Soc. **135**, 4250 (2013)
- [4] J. Mikosch•, A. E. Boguslavskiy, I. Wilkinson, M. Spanner, S. Patchkovskii, and A. Stolow
Channel- and Angle-Resolved Above Threshold Ionization in the Molecular Frame
Phys. Rev. Lett. **110**, 023004 (2013)
- [3] A. E. Boguslavskiy, J. Mikosch, A. Gijsbertsen, M. Spanner, S. Patchkovskii, N. Gador,
M. J. J. Vrakking, and A. Stolow
The Multielectron Ionization Dynamics Underlying Attosecond Strong-Field Spectroscopies
Science **335**, 1336 (2012)
- [2] J. Mikosch, S. Trippel, C. Eichhorn, R. Otto, U. Lourderaj, J. X. Zhang, W. L. Hase,
M. Weidemüller, and R. Wester
Imaging Nucleophilic Substitution Dynamics
Science **319**, 183 (2008)
- [1] J. Mikosch, U. Frühling, S. Trippel, D. Schwalm, M. Weidemüller, and R. Wester
Evaporation of Buffer-Gas-Thermalized Anions out of a Multipole rf Ion Trap
Phys. Rev. Lett. **98**, 223001 (2007)