

Prof. Dr. Anja-Verena Mudring FRSC

Chair of Physical Materials Chemistry, Stockholm University
Associate Editor, *Crystal Growth & Design* (American Chemical Society)

Research Profile:

Research motto: Theory with Practice - Understanding fundamental structure-property relationships with the aim to design new materials for energy related applications.

Ionic liquids. Light emitting electrochemical cells. Liquid crystals. Luminescent materials. Magnetic refrigeration. Nanomaterials. Relativistic effects in chemistry. Catalysis. Structure Analysis.

Thermoelectrics.

Solid state, materials and coordination chemistry. Physical and computational chemistry. X-ray structure analysis. Neutron scattering. Vibrational spectroscopy. Optical spectroscopy. Magnetism. Thermal analysis.

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<https://scholar.google.com/citations?user=1wofyBoAAAAJ&hl=en>

Date of Birth: February 14, 1971

Education and Qualifications:

- 1990-1995: Rheinische Friedrich-Wilhelms-Universität Bonn, Germany, Diplom-Chemiker (Dipl.-Chem.) (*with distinction*)
- 1995-2001: Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany and as the degree granting institution: Rheinische Friedrich-Wilhelms-Universität, Bonn, Germany, Dr. rer. nat. (*summa cum laude, with distinction*), Graduate Advisor: Prof. Dr. Martin Jansen
- 2003-2006: Universität zu Köln, Germany, Habilitation, Priv.-Doz. (2006)

Appointments and Positions:

- 1992-1995: Research Assistant, Rheinische Friedrich-Wilhelms-Universität, Bonn, Germany
- 1995-2001: Graduate Research Assistant and Fellow of the Fonds der Chemischen Industrie and Ev. Studienwerk Villigst e.V., Rheinische Friedrich-Wilhelms-Universität Bonn, Germany and Max-Planck-Institute for Solid State Research, Stuttgart, Germany
- 2001-2003: Postdoctoral Researcher, Iowa State University and Ames Laboratory, Ames, IA, USA and Feodor Lynen Fellow, Alexander von Humboldt-Foundation
- 2003-2006: Scientific Assistant (C1, Assistant Professor equivalent), Universität zu Köln, Germany, and Liebig Fellow of the Fonds der Chemischen Industrie
- 2006-2014: Tenured Professor of Inorganic and Materials Chemistry (W2, tenured Associate Professor and W3, Chair, Full Professor equivalent), Ruhr-Universität Bochum, Germany
- 2013-2017: Glenn Murphy Professor of Materials Science and Engineering (tenured Full Professor), Iowa State University, Ames, IA, USA
- 2013-2017: Faculty Scientist, Ames Laboratory, U.S. Department of Energy, Ames, IA, USA
- 2016- Chair of Physical Materials Chemistry, Stockholm University, Sweden

Adjunct, Honorary, and Visiting Positions:

- 2006-2007: Affiliate Professor, Iowa State University, Ames, IA, USA
2008-2014: Adjunct Professor, The University of Alabama, Tuscaloosa, AL, USA
2017- : Adjunct Professor, The University of Alabama, Tuscaloosa, AL, USA

Memberships in Learnt Societies:

- American Chemical Society (ACS)
- The American Ceramics Society (ACerS)
- American Crystallographic Association (ACA)
- Deutsche Physikalische Gesellschaft (DPG)
- Deutsche Gesellschaft für Kristallographie (DGK)
- Gesellschaft Deutscher Chemiker (GDCh)
- Gesellschaft Deutscher Naturforscher und Ärzte (GdNÄ),
- Gesellschaft für chemische Technik und Biotechnologie (DECHEMA)
- European Rare Earth Society (ERES), Vice-President
- Materials Research Society (MRS),
- Royal Society of Chemistry (RSC), Fellow
- The Electrochemical Society
- The Optical Society (OSA)
- Sigma Xi

Services (University and National Laboratory):

- Chemistry Teaching Commission, Ruhr-Universität Bochum, Germany (2008-2014)
- Equality Commission, Ruhr-Universität Bochum, Germany (2011-2014)
- Chair of the Research Department Interfacial Systems Chemistry, Ruhr-Universität Bochum, Germany (2011-2014)
- Board of the DFG Cluster of Excellence RESOLV, Ruhr-Universität Bochum, Germany (2013-2014)
- Vice-Chair, Department of Materials Science & Engineering, Iowa State University, Ames, USA (2015-2016)
- Director of Graduate Education, Department of Materials Science & Engineering, Iowa State University, Ames, USA (2015-2016)
- Research Director, Department of Materials Science & Engineering, Iowa State University, Ames, USA (2015-2016)
- Served on various faculty search committees
- Member of various national and international PhD committees

Services (other):

- Training of the German Team for the International Chemistry Olympiad (1991-2006), Advisory Board and Judge of the International Chemistry Olympics, Kiel, Germany, 2005
- Scientific Advisory Board of the Evangelischer Hochschulbeirat (EKD), Germany (2008-2015)
- Vice-President of the European Rare Earth Society (ERES), Geneva, Switzerland (2008-)
- Advisory Board, Evangelisches Studienwerk Villigst e.V., Germany (2011-2015)
- Founding Chair of the COST Action CM1206 (EXIL – Exchange on Ionic Liquids), European Commission (2013-2014)
- Founding Chair of the Marie Curie Initial Training Network LUMINET, European Commission (2012-2014)
- Advisory Board, FIRST Energy Center, Oak Ridge National Laboratory, US (2014-)

- Chair-Elect of the Iowa Section, American Chemical Society, USA (2016)
- Chair of the Iowa Section, American Chemical Society, USA (2017)
- Referee for various scientific journals
- Referee for various science and research organizations (such as CSIRO) Australia, DFG (Germany), DOE (US), EC (Europe), FCT (Portugal), FWF (Austria), FWO (Belgium)

Editorial Boards and Editorships:

- Associate Editor, *Crystal Growth & Design* (American Chemical Society) (2010-)
- Editorial Board, *Crystals* (MDPI) (2010-2015)
- Guest Editor, *Inorganic Chemistry* (American Chemical Society), John Corbett Memorial Issue (2015)
- Referee for various journals in general, inorganic, physical and materials chemistry

Fellowships:

- Undergraduate Fellowship, Evangelisches Studienwerk Villigst e.V., Germany (1992-1995)
- Fritz-ter-Meer Fellowship, Bayer Foundation, Germany (1992-1995)
- Graduation Fellowship, Hoechst AG, Germany (1995)
- Graduate Fellowship, Fonds der Chemischen Industrie, Frankfurt, Germany (1995-1997)
- Graduate Fellowship, Studienstiftung des Deutschen Volkes, Bonn, Germany (1995), *declined by AVM*
- Graduate Fellowship, Eangelisches Studienwerk Villigst e.V., Germany (1997-2001)
- Feodor-Lynen Fellow, Alexander-von Humboldt Foundation, Bonn, Germany (2001-2003 and 2006)
- Liebig Fellow, Fonds der Chemischen Industrie, Frankfurt, Germany (2003-2005)
- Dozentenstipendium (Young Faculty Excellence Fellowship), Fonds der Chemischen Industrie, Frankfurt, Germany (2003-2005)
- Academia-Industry Fellowship, BASF AG, Germany (2010)
- Alexander von Humboldt Honorary Research Fellowship, Foundation for Polish Science (FNP) (2011)
- Glenn Murphy Professor of Materials Science and Engineering, Iowa State University, Ames, IA, USA (2013-2017)

Awards:

- Best Chemistry Student, Fonds der Chemischen Industrie, Frankfurt, Germany (1990)
- Heinrich Hörlein Memorial Award, Bayer Foundation, Germany (1995)
- Lindau Noble Laureate Meeting, Lindau, Germany (1996)
- Dr. Heinrich und Else Heraeus-Förderpreis, Deutsche Gesellschaft der Naturforscher und Ärzte, Germany (1998)
- Wilhelm Klemm Foundation, Münster, Germany (2001)
- H.C. Starck Award, Division of Solid State and Materials Chemistry, German Chemical Society (2002)
- GEF RUB Dissertation Award, Rheinische Friedrich-Wilhelms-Universität, Bonn, Germany (2002)
- High Potential Young Scientist Award, Noble Foundation, Stockholm, Sweden (2005)
- Young Researcher Award, German-Israeli Foundation for Science and Development, Israel (2006)
- QUILL Lecture, Queen's Ionic Liquid Laboratories, Belfast, UK (2007)
- Elected Fellow of the Royal Society of Chemistry, London, UK (2008)
- European Research Council (ERC) Grantee, EC, Brussels, Belgium (2009 and 2011)

- Inventor Award, Ruhr-Universität Bochum, Germany (2013)
- Germany at its best – Inventor Award, State of Northrhine-Westphalia, Germany (2013)
- Ames Laboratory Inventor Incentive Award, Ames Laboratory U.S. DOE, Ames IA, USA (2016)
- Ames Laboratory Inventor Incentive Award, Ames Laboratory U.S. DOE, Ames IA, USA (2017)
- Göran Gustafsson Prize in Chemistry, Gorän Gustafsson Stiftelse/Royals Swedish Academy, Sweden (2017)

Theses and Dissertations Directed:

Bachelor Theses:

1. Chantal Lorbeer, "Darstellung und Charakterisierung von lumineszierenden Materialien in ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2008.
2. Kathrin Stappert, "Synthese und Untersuchung von ionischen Flüssigkristallen", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2009.
3. Agnes Schimitzek, "Funktionalisierte Ionische Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2010.
4. Anna Kupka, "Synthese und Charakterisierung polymerisierbarer Ionischer Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2010.
5. Holger Rabuske, "Ionische Flüssigkristalle: Synthese, Analyse und Dotierung", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2010.
6. Nadine Gösler, "Synthese und Charakterisierung einer hydroxy-funktionalisierten Ionischen Flüssigkeit und Darstellung von Kuper-Nanopartikeln", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2010.
7. Thomas Brüggemann, "Zur Chemie des Holmiums in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2010.
8. Yvon Gothe, "Optische Basizitäten funktionalisierter Ionischer Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2010.
9. Christian Berges, "Darstellung von porösen Netzwerkstrukturen mittels Ionothermalsynthese", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2011.
10. Kai Elsner, "Synthese und Charakterisierung von metallbasierten Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2011.
11. Kirsten Grübel, "Nanophosphore aus Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2011.
12. Marian Sturm, "Synthese von Alumophosphaten aus Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2011.
13. Maximilian Gebhardt, "Scandiumcluster in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2011.
14. Alnaz Teshnehkam, "Iod-halogenid in 18-Krone-6: Experimentelle und Theoretische Untersuchungen", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.
15. Anastasia Lackmann, "Samariumhalogenide in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.

16. Eva Geske, "Oberflächenmodifikation und Extraktion von Goldpartikeln synthetisiert durch physikalische Gasphasenabscheidung in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.
17. Gabriel Kopiec, "Ytterbiumhalogenide aus Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.
18. Marco Rehosek, "Ionische Flüssigkeiten auf Basis von Metall-Cyanat-Komplexen", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.
19. Margarete Johanna Roskosz, "Azide der Lanthanide in ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.
20. Sarah Birkenkamp, "Lumineszierende Ionische Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.
21. Stefanie Macherski, "Cerhalogenide in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.
22. Viktoria Grasmik, "Chemie der zweiwertigen Lanthanoide und Erdalkalimetalle in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2012.
23. Wiebke Appels, "Ionische Flüssigkeiten zur Darstellung von Metallaten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2013.
24. Artjom Beresin, "Versuche zur Darstellung von Antimontellurid-Thermoelektrika in Ionischen Flüssigkeiten mit verschiedenen Konzentrationen", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2013.
25. Christine Heitkamp, "Ionothermal Synthesis and Characterization of New Iron Phosphates ", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2013.
26. Manuel Loor, "Synthese und Charakterisierung eines neuen Flüssigkristalltyps ", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2013.
27. Kevin Pappert, "Darstellung von Antimon-Tellur-Funktionsnanopartikeln in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2013.
28. Olga Kirschmann, "Synthese, optische und Redoxeeigenschaften von Salzen sulfonatsubstituierter Triphenylamine", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2013.
29. Raimund Kroeber, "Synthese und Charakterisierung von lumineszierenden 3-Phenylpyridinium-Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2013.
30. Ina Strauß, "Versuche zur Darstellung von Antimontellurid-Nanopartikeln in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2014.

31. Alexander Kroll, " Die Chemie des zweiwertigen Samariums in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2014.
32. Lukas Mai, "Lumineszente Ionische Flüssigkeiten basierend auf ein- und zweikernigen Mangankomplexen", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2014.
33. Maximilian Glöckeler, "Die Chemie des zweiwertigen Thuliums in Ionischen Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2014.
34. Robin Kentsch, "Die Verwendung von Ionischen Flüssigkeiten in Solarzellen", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2014.
35. Tobias Jan Löffler, "Synthese und Charakterisierung von Eisen-Nanopartikeln in der Ionischen Flüssigkeit 1-Butyl-3-methylimidazolium-4,5-dicyanomidazolid", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2014.
36. Gregor T. Lipinski, "Ionische Flüssigkristalle: Stabilisierung der Mesophase durch Einführung von stäbchenförmigen Anionen?", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2014.
37. Joanna Muthmann, "UV/Vis-Studien Azobenzol basierter photochromischer ionischer Flüssigkeiten", Bachelor Thesis, Ruhr-Universität Bochum, Germany, 2014.

Master and Diploma Theses:

1. Arash Babai, "Seltenerd-Verbindungen in Ionischen Flüssigkeiten", Diploma Thesis, Universität zu Köln, Germany, 2004.
2. Anna Getsis, "Untersuchungen an Bromiden der Seltenerdelemente in Ionischen Flüssigkeiten", Diploma Thesis, Universität zu Köln, Germany, 2005.
3. Slawomir Pitula, "Optische Basizitäten von Ionischen Flüssigkeiten – Spektroskopische Untersuchungen an Eu^{III} und Mn^{II} in Ionischen Flüssigkeiten", Diploma Thesis, Universität zu Köln, Germany, 2007.
4. Bert Mallick, "Ferrofluide auf Basis Ionischer Flüssigkeiten", Diploma Thesis, Universität zu Köln, Germany, 2007.
5. Tarek Alammari, "Synthese von ZnO-Nanokristallen in Ionischen Flüssigkeiten", Master Thesis, Ruhr-Universität Bochum, Germany, 2008.
6. Tobias Bäcker, "Darstellung von Münzmetallnanopartikeln aus reaktiven Ionischen Flüssigkeiten", Master Thesis, Ruhr-Universität Bochum, Germany, 2008.
7. Joanna Bartosik, "Übergangsmetallkomplexe in Ionischen Flüssigkeiten", Master Thesis, Ruhr-Universität Bochum, Germany, 2008.

8. Kai Richter, "Synthese von Nanopartikeln in Ionischen Flüssigkeiten via Physical Vapour Deposition", Master Thesis, Ruhr-Universität Bochum, Germany, 2008.
9. Mei Kappels, "Synthese und Untersuchungen von Ionischen Flüssigkristallen", Master Thesis, Ruhr-Universität Bochum, Germany, 2009.
10. Chantal Pia Lorbeer, "Synthese und Untersuchung von Ionischen Flüssigkristallen", Master Thesis, Ruhr-Universität Bochum, Germany, 2010.
11. Kathrin Stappert, "Strukturuntersuchung an Ionischen Flüssigkeiten mit mesogenen Funktionalitäten", Master Thesis, Ruhr-Universität Bochum, Germany, 2011.
12. Demian Pitz, "Lumineszente Polymere auf Basis Ionischer Flüssigkeiten," Diploma Thesis, Universität zu Köln, Germany, 2011.
13. Fabian Hoffmann, "Thermische und spektroskopische Eigenschaften geladener Übergangsmetallkomplexe auf der Basis eines Salicylideniminliganden", Master Thesis, Ruhr-Universität Bochum, Germany, 2013.
14. Jörn Thomas Brüggemann, "Structure property relationships in ionic liquids", Master Thesis, Ruhr-Universität Bochum, Germany, 2013.
15. Mike Broxtermann, "Luminescent Main Group and Transition Metal Doped Ionic Polymers", Master Thesis, Ruhr-Universität Bochum, Germany, 2013.
16. Anastasia Lackmann, "Lanthanide Chemistry in Ionic Liquids", Master Thesis, Ruhr-Universität Bochum, Germany, 2014.
17. Gabriel Kopiec, "Lanthanide Chemistry in Ionic Liquids", Master Thesis, Ruhr-Universität Bochum, Germany, 2014.
18. Meike Leu, "Metal containing ionic liquids", Master Thesis, Ruhr-Universität Bochum, Germany, 2013.
19. Derya Ünal, "Design of Antimony Telluride in Imidazolium and Triazolium based Ionic Liquids", Master Thesis, Ruhr-Universität Bochum, Germany, 2013.
20. Damla Yaprak, "Extraktion von Uranyl-Komplexen in wässriger Lösung mit Ionischen Flüssigkeiten", Master Thesis, Ruhr-Universität Bochum, Germany, 2013.
21. Marina Sturm, "Synthese und Charakterisierung von Metallmesogenen mit disubstituierten Bipyridin-Liganden", Master Thesis, Ruhr-Universität Bochum, Germany, 2013.

Doctoral Dissertations:

1. Arash Babai, "Rare-Earth Complexes in Ionic Liquids – Structures, Electrochemical and Optical Properties", Dr. rer. nat. Thesis, Universität zu Köln, Germany, 2006.
2. Franziska Rieger, "Thallium als Pseudoalkalimetall in Verbindungen mit Makrocyclen und mit Chalkogenen in den Systemen Tl-Te-O und Tl-Te-S", Dr. rer. nat. Thesis, Universität zu Köln, Germany, 2006.
3. Anna Getsis, "Ionische Flüssigkristalle – Thermische, Optische und Strukturelle Eigenschaften ", Dr. rer. nat. Thesis, Universität zu Köln, Germany, 2008.
4. Tudor Lucian Timofte, "Structural and Physical Properties of Salts Containing Tetrahedral Anions with Group 13 Metals (Aluminates and Halogenido-gallates)", Dr. rer. nat. Thesis, Universität zu Köln, Germany, 2008.
5. Bert Mallick, "Ionische Flüssigkeiten auf Basis von komplexen Übergangsmetallhalogeniden", Dr. rer. nat. Thesis, Universität zu Köln, Germany, 2009.
6. Slawomir Pitula, "Luminescent Ionic Liquids", Dr. rer. nat. Thesis, Universität zu Köln, Germany, 2010.
7. Tarek Alamar, "Sonochemical Synthesis and Characterization of Metal Oxide Nanoparticles in Ionic Liquids", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2011.
8. Tobias Bäcker, "Funktionelle Ionische Flüssigkeiten", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2012.
9. Nina von Prondzinski, "Ionische Flüssigkeiten zur Darstellung von Funktionsmaterialien – Ionic liquids for the synthesis of functional materials", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2012.
10. Chantal Pia Lorbeer, "Light converting materials from ionic liquids", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2012.
11. Joanna Bäcker, "Übergangsmetalle in Ionischen Flüssigkeiten", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2013.
12. Kai Richter, "Eigenschaften funktioneller Nanopartikel hergestellt durch physikalische Gasphasenabscheidung in ionischen Flüssigkeiten", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2013.
13. Mei Yang, "Mesophase Formation of Imidazolium Based Ionic Liquids", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2013.
14. Kathrin Stappert, "Structure-Property Relationships of Ionic Liquids", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2014.

15. Mark Richter, "Structure-Property Relationships of Ionic Liquids ", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2015.

16. Demian Pitz, "Structure-Property Relationships of Luminescent Ionic Polymers: Towards new Phosphors for Lighting Applications", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2015.

17. Julian Schaumann, "Ionische Flüssigkeiten zur Synthese von Funktions-Nanomaterialien", Dr. rer. nat. Thesis, Universität Duisburg-Essen, Germany, co-supervised with Prof. Dr. St. Schulz, 2015.

18. Jude Namanga, "Structural Modification of Light-Emitting Iridium-based Ionic Transition Metal Complexes and Their Uses in Light-Emitting Electrochemical Cells (LECs)", Dr. rer. nat. Thesis, Ruhr-Universität Bochum, Germany, 2015.

PhD Candidates:

- Chris Celandia, Iowa State University, USA (2014-)
- Gabriella Tessitore, Ruhr-Universität Bochum, Germany and Universität Bern, Switzerland, co-supervised with Priv.-Doz. Dr. Karl Krämer (2013-)

Honors and Undergraduate Students Mentored:

- Stefanie Winkler, Ruhr-Universität Bochum, Germany (2008)
- Lars Tuscher, Ruhr-Universität Bochum, Germany (2009)
- Kathrin Klein, Ruhr-Universität Bochum, Germany (2010)
- Frederik von Zedlitz, Ruhr-Universität Bochum, Germany (2011)
- Milena Hölter, Ruhr-Universität Bochum, Germany (2011)
- Nathan Card, Iowa State University, Ames IA, USA (2014-2015)
- Jacob Birke, Iowa State University, Ames IA, USA (2015)
- Matthew Klocke, Iowa State University, Ames IA, USA (2015-2016)
- Wade DeGraff, Iowa State University, Ames IA, USA (2016)
- Tyler Prasut, Iowa State University, Ames IA, USA (2016)

Foreign Exchange Students:

- Lev Trusov, from Moscow State University, Russia, hosted at Ruhr-Universität Bochum, Germany, 2007
- Anthony Chesman, from Monash University, Australia, hosted at Ruhr-Universität Bochum, Germany, 2009
- Egorova Bayirta, from Moscow State University, Russia, hosted at Ruhr-Universität Bochum, Germany, 2010
- Gannon Parker, from The University of Alabama, AL, USA, hosted at Ruhr-Universität Bochum, Germany, 2010
- Kaila Matson, from University of South Alabama, AL, USA, hosted at Ruhr-Universität Bochum, Germany, 2010

- Marina Onishchenko, from Moscow State University, Russia, hosted at Ruhr-Universität Bochum, Germany, 2011
- Kit Chow, from Cardiff University, United Kingdom, hosted at Ruhr-Universität Bochum, Germany, 2013

Guest Researchers:

- Dr. Tilo Söhnle, from University of Auckland, New Zealand, hosted at Ruhr-Universität Bochum, Germany, 2007
- Dr. Oliver Janka, from University of California, Davis, hosted at Ruhr-Universität Bochum, Germany, 2012
- Dr. Alessia Provino, from Università degli Studi di Genova, hosted at Ames Laboratory, Ames IA, USA, 2014-2016
- Prof. Dr. Pietro Manfrinetti, from Università degli Studi di Genova, Davis, hosted at Ames Laboratory, Ames IA, USA, 2014-2016

Postdoctoral Researchers Mentored:

- Dr. Franziska Rieger, Ruhr-Universität Bochum, Germany (2006-2007)
- Dr. Anna Getsis Ruhr-Universität Bochum, Germany (2008-2009)
- Dr. Sifu Tang, Ruhr-Universität Bochum, Germany (2008-2010)
- Dr. Joanna Cybinska, Ruhr-Universität Bochum, Germany (2009-2012)
- Dr. Bert Mallick, Ruhr-Universität Bochum, Germany (2012, permanent scientific staff since 2013)
- Dr. Jennyfer Sierau, Ruhr-Universität Bochum, Germany (2010)
- Dr. Pushpal Ghosh, Alexander-von-Humboldt Fellow, Ruhr-Universität Bochum, Germany (2011-2013)
- Dr. Paul Campbell, Alexander-von-Humboldt Fellow, Ruhr-Universität Bochum, Germany (2012-2014)
- Dr. Qian Ju, Ruhr-Universität Bochum, Germany (2012-2014)
- Dr. Mei Yang, Ruhr-Universität Bochum, Germany (2014)
- Dr. Eike Spielberg, DFG Postdoctoral Fellow, Ruhr-Universität Bochum, Germany (2013-2014)
- Dr. Volodymyr Smetana, Ames Laboratory, Ames IA, USA (2013-2015, since 2016 permanent staff)
- Dr. Simon Steinberg, Iowa State University and Ames Laboratory, Ames IA, USA (2014-2015)
- Dr. Denis Prodius, Ames Laboratory, Ames IA, USA (2013-2017)
- Dr. Tarek Alammari, Ruhr-Universität Bochum, Germany (2011-2015) and Iowa State University, Ames IA, USA (2015-2017)
- Dr. Jude Namanga, Ames Laboratory, Ames IA, USA (2016-2017)
- Dr. Deepak Chand, Ames Laboratory, Ames IA, USA (2016-2017)
- Dr. Anne Willert, Ames Laboratory, Ames IA, USA and Stockholm University (2016-)
- Dr. Magdalena Wilk-Kozubek, Ames Laboratory, Ames IA, USA (2016-)

Student and Postdoc Awards:

- Anna Getsis, Graduate Fellowship, Fonds der Chemischen Industrie, Frankfurt, Germany (2006)
- Chantal Lorbeer, Graduate Fellowship, Fonds der Chemischen Industrie, Frankfurt, Germany (2010)
- Mark Richter, Graduate Fellowship, Evangelisches Studienwerk Villigst e.V., Germany (2011)
- Chantal Lorbeer, Postdoctoral Fellowship (2014)
- Arash Babai, Poster Award, Terae Rarae, Bonn, Germany (2005)
- Joanna Cybinska, Poster Award, Excited States of Transition Elements (ESTE), Poland (2010)
- Sebastian Golbert and Sergiu Anghel, Poster Award, International Conference on Luminescence, Wroclaw, Poland (2014)
- Denis Prodius, Ames Laboratory Postdoc Award, Ames Laboratory (2017)

Meetings, Conferences, Symposia organized:

- 2008
 - 25th RERC 2008 (Rare Earth Research Conference), Tuscaloosa AL, USA; Scientific Advisory Board & Ionic Liquid Session Organizer
 - ACS Fall Meeting 2008, Philadelphia, USA; Session Organizer “Ionic Liquid Materials“
 - MSE 2008 (Materials Science and Engineering), Nürnberg, Germany; Session Organizer
 - Terae Rarae 2008, Bochum, Germany; Conference Organizer
- 2009
 - COIL 2009 (International Conference on Ionic Liquids), Cairns, Australia; Scientific Advisory Board
 - 9th ICfE 2009 (International Conference on f-Elements), Köln, Germany, Session Organizer
- 2010
 - APCIL 2010 (Asian Pacific Conference on Ionic Liquids), Beijing, China; Scientific Advisory Board
 - ESTE 2010 (Excited States of Transition Metals), Santiago de Chile; Scientific Advisory Board
- 2011
 - ISEC 2011 (International Solvent Extraction Conference), Beijing, China; Scientific Advisory Board
 - 26th RERC 2011 (Rare Earth Research Conference), Albuquerque NM, USA; Scientific Advisory Board & Ionic Liquid Session Organizer
 - COIL 2011 (International Conference on Ionic Liquids), Washington DC, USA; Scientific Advisory Board
- 2012
 - ACS Spring Meeting 2012, San Diego CA, USA; Session Organizer: “Nanomaterials in Ionic Liquids”
 - APCIL 2012 (Asian Pacific Conference on Ionic Liquids), Beijing, China; Scientific Advisory Board
- 2013
 - COIL 2013 (International Conference on Ionic Liquids), Vilamoura, Portugal; Scientific Advisory Board
- 2014
 - Gordon Research Conference on Ionic Liquids, Newry ME, USA; Co-Chair
 - 27th RERC 2014 (Rare Earth Research Conference), Squaw Valley CA, USA; International Advisory Board & Program Committee
 - EUCHEM 2014, Tallinn, Estonia; Scientific Advisory Board

- CIMTEC 2014, Montecatini Terme, Italy; International Advisory Board
- 2015 • COIL 2015 (International Conference on Ionic Liquids), Jeju City, South Korea; International Advisory Board
- 11th ICfE 2015 (International Conference on f Elements), Oxford, UK; International Advisory Board
- 2016 • Gordon Research Conference on Ionic Liquids, Newry ME, USA; Chair
- ESTE (Excited States of Transition Metals) Polanica Zdroj, Poland; International Advisory Board
- 40th International Conference and Expo on Advanced Ceramics Composites; Symposium Co-Organizer
- Toronto, Canada, Symposium Co-Organizer, G10: Energy-efficient lighting and power devices: Materials, technologies, and applications
- 2017 • 28th RERC (Rare Earth Research Conference), Ames IA, USA; Co-Chair
- 41th International Conference and Expo on Advanced Ceramics Composites; Symposium Co-Organizer

Research Grants:

- 2006 • Fonds of the Chemical Industry
- Reactive Lanthanide Compounds in Ionic Liquids (DFG, SPP 1166)
- Design of metal-containing ionic liquid crystals and study of their structural, thermal and spectroscopic properties (DFG, SPP 1191)
- 2007 • Royal Chemical Society of New Zealand
- German Israeli Science Foundation (GIF)
- U.S. Department of Energy (DOE)
- Chemistry with Relativity (DFG)
- Nanoparticles for Catalysis (DFG, SFB 558)
- 2008 • Fonds of the Chemical Industry (“Dozentenstipendium”)
- Lanthanide based Ionic Liquids (DFG, SPP 1166)
- Ionic Liquid Crystals (DFG, SPP 1191)
- Transition Metals in Ionic Liquids (DFG, SPP 1191)
- EMIL – Nanophosphors (ERC Starting Grant, 7th EU-FP)
- 2009 • SorenHyBio (NRW – Ziel 2; Desulfurization of Biogas; Chemical Industry & German Federal Ministry of Science and Education)
- Nanoparticles for Catalysis (DFG, SFB 558)
- Improved UV light conversion phosphors from task specific ionic liquids (HasyLab, DESY; beamtime and travel allowance)
- 2010 • Ionic Liquid Mesophases (DFG, SPP 1191)
- Transition Metals in Ionic Liquids (DFG, SPP 1191)
- Chemical Industry
- Alexander von Humboldt Foundation
- Mesophase Determination of Ionic Liquid Crystals (HasyLab, DESY; beamtime and travel allowance)

- 2011 • Luminescent properties of functional materials made from ionic liquids investigated by VUV excitation (Hasylab, DESY; beamtime and travel allowance)
- Mesophase determination of Ionic Liquid Crystals – The effect of the anion (Hasylab, DESY; beamtime and travel allowance)
- EXAFS – Structure determination of nanoparticles in Ionic Liquids (Hasylab, DESY; beamtime and travel allowance)
- Bright EMIL (ERC, Proof-of-Concept Grant)
- 2012 • LUMINET (Coordinator, Marie Curie Initial Training Network, 7th Framework Program of the EU)
- EXIL (Coordinator, COST, EU)
- 2013 • Rare Earth Materials in Ionic Liquids (Critical Materials Institute, Ames Laboratory, US DOE, USA)
- 2014 • Electrodeposition of Rare Earth Elements from Ionic Liquids (Critical Materials Institute, Ames Laboratory, US DOE, USA)
- 2015 • Luminescent and Magnetic Ionic Liquids (single PI, NSF, USA)
- Light Emitting Electrochemical Cells (Ames Laboratory, US DOE, USA)
- 2016 • MRI: Acquisition of Small/Ultra Small/Wide Angle X-ray Scattering for Materials Research, National Science Foundation, MRI, Co-PI
- 2016 • Nya oorganiska öppna nätverksstrukturer möjliggjorda genom syntes i jonvätskor (Vetenskapsrådet, Sweden, single PI)
- 2017 • Self-sterilizing surfaces (Carl Tryggers Stiftelse, Sweden, single PI)
- 2017 • Smart Materials from Ionic Liquids for Energy Applications (Göran Gustafsson Stiftelse, Kungl. Vetenskapsakademien, Sweden, single PI)

Academic Collaborations:

Academic (sorted by country, then institution):

- Stuart Batten, Glen Deacon, School of Chemistry Faculty of Science, Monash University, Australia
- Koen Binnemans, Laboratory of Inorganic Chemistry, University of Leuven, Belgium
- Robin D. Rogers, Department of Chemistry, McGill University, Canada
- Ladislav Havela, Department of Condensed Matter Physics, Charles University, Prague, Czech Republic
- Sifu Tang, Qingdao Institute of Bioenergy and Bioprocessing, Chinese Academy of Sciences, China
- Georges Boulon, Yannick Guyot, Institut Lumière Matière, University Lyon, France
- Paul-Henri Haumesser, Pierre and Marie Curie University, Lyon, France
- Catherine Santini, C2P2 (Chemistry, Catalysis, Polymers and Processes), CNRS Lyon, France
- Wilfried Assenmacher, Institut für Anorganische Chemie, Universität Bonn, Germany
- Helmut Eckert, Institut für Physikalische Chemie, Universität Münster, Germany
- Wolfgang Grünert, Martina Havenith, Fakultät für Chemie, Ruhr-Universität Bochum, Germany
- Alfred Ludwig, Institute of Materials, Faculty of Mechanical Engineering Ruhr-Universität Bochum, Germany

- Sabine Kareth, Marcus Petermann, Lehrstuhl für Feststoffverfahrenstechnik, Ruhr-Universität Bochum, Germany
- Axel Klein, Uwe Ruschewitz, Institut für Anorganische Chemie, Universität zu Köln, Germany
- Ekatarina Nannen, Werkstoffe der Elektrotechnik, Universität Duisburg-Essen, Germany
- Simon Steinberg, Solid State and Quantum Chemistry, RWTH Aachen, Germany
- Gabi Schierning, IFW Dresden, Germany
- Thomas Schleid, Institut für Anorganische Chemie, Universität Stuttgart, Germany
- Stephan Schulz, Institut für Anorganische Chemie, Universität Duisburg-Essen, Germany
- Martin Valldor, MPI Cpfs, Dresden, Germany
- Michael Wark, Institut für Technische Chemie, Universität Oldenburg, Germany
- Karsten Meyer, Institut für Anorganische Chemie, Universität Nürnberg-Erlangen, Germany
- Peter Wasserscheid, Institut für Technische Chemie, Universität Nürnberg-Erlangen, Germany
- Birgit Weber, Institut für Anorganische Chemie, Universität Bayreuth, Germany
- Pushpal Gosh, Department of Chemistry, Dr. Harisingh Gour University, India
- Sudesh K. Dhar, Department of Condensed Matter Physics & Materials Science, Tata Institute of Fundamental Research, Mumbai, India
- Alessia Provino, Pietro Manfrinetti, Department of Chemistry and Industrial Chemistry Università degli Studi di Genova, Italy
- Andries Meijerink, Chemistry, University Utrecht, Netherlands
- Joanna Cybinska, Malgorzata Guzik, Eugeniusz Zych, Optical Materials Group, Department of Chemistry, University Wroclaw, Poland
- Osama Shekhah, King Abdullah University of Science and Technology, Saudi Arabia
- Henk Bolink, Instituto de Ciencia Molecular, University of Valencia, Spain
- Kenneth R. Seddon, Department of Chemistry, Queen's University, Belfast, UK
- Karl Krämer, Department of Chemistry, Universität Bern, Switzerland
- Michele Parinello, ETH Zürich, Switzerland
- Yaroslav Kalychak, Department of Analytical Chemistry, Ivan Franko National University of L'viv, Ukraine
- Jim Anderegg, Gerd Meyer, Gordon Miller, Vitalij Pecharsky, Igor Slowing, U.S. DOE Ames Laboratory, USA

Industry Collaborations (NDAs in place):

- Merck KG, Darmstadt, Germany
- KSB, Frankenthal, Germany
- Siemens AG, Erlangen, Germany
- RUBOTHERM GmbH, Bochum, Germany
- Chematronics, Eindhoven, NL
- Supercis Solar, Eindhoven, NL
- Lediko, Wroclaw, Poland
- Philips, Eindhoven, NL
- Osram AG/ Osram OLED GmbH, Augsburg, München, Germany
- US Rare Earth, USA
- Molycorp, USA
- Rare Elements, USA