

CURRICULUM VITAE

Dr. Dinar Abdulin

Academic staff
University of Ulm
Institute of Physical Chemistry II
Lise-Meitner-Str. 16
89081 Ulm, Germany
E-mail: dinar.abdullin@uni-ulm.de

Education

- 2012 – 2017 Ph.D. in Physical Chemistry (summa cum laude)
Institute for Physical and Theoretical Chemistry, University of Bonn
Dissertation: "Localization of paramagnetic metal ions in biomolecules using electron spin resonance"
Supervisor: Prof. Dr. Olav Schiemann
- 2010 – 2012 M.Sc. Physics (graduated with honors)
Kazan Federal University, Russia
Thesis: "ESR investigation of $\text{Li}_2\text{Mn}_2(\text{MoO}_4)_3$ and $\text{Li}_3\text{V}_2(\text{PO}_4)_3$ compounds as materials for lithium-ion batteries"
Supervisor: Prof. Dr. Nail Suleimanov
- 2006 – 2010 B.Sc. Radiophysics (graduated with honors)
Kazan Federal University, Russia
Thesis: "ESR investigation of nickel clusters in carbon nanotubes,"
Supervisor: Prof. Dr. Nail Suleimanov

Work

- Since 10.2025 Academic staff (permanent), Prof. S. Richert research group, Institute of Physical Chemistry II, University of Ulm, Germany
- 08.2025-10.2025 Research assistant, Prof. S. Richert research group, Institute of Physical and Theoretical Chemistry, University of Frankfurt, Germany
- 2017 – 2025 Academic staff (permanent), Prof. O. Schiemann research group, Institute of Physical and Theoretical Chemistry, University of Bonn, Germany
- 2012 – 2017 Research assistant / doctoral candidate, Prof. O. Schiemann research group, Institute of Physical and Theoretical Chemistry, University of Bonn, Germany
- 2010 – 2012 Research assistant / M.Sc. candidate, Prof. N. Suleimanov research group, Kazan Physical-Technical Institute, Russia
- 2011 Software developer, Navigation Technologies Ltd., Russia

Teaching

- Fundamentals of thermodynamics (seminars): WS 2018/19, WS 2019/20, WS 2024/25
- Electrochemistry and kinetics (seminars): WS 2014/15, SS 2019, SS 2020
- Statistical thermodynamics (seminars): WS 2013/14, WS 2016/17, WS 2021/22, WS 2022/23
- Spectroscopy (seminars): SS 2015, SS 2017, SS 2022, SS 2023
- Physical chemistry practicum: SS 2016, WS 2024/25
- Advanced physical chemistry practicum: WS 2015/16, WS 2016/17, WS 2024/25
- Magnetic resonance spectroscopy (seminars and practical course): SS 2017 – SS 2024 (annually)
- Practical course in biophysical chemistry: WS 2014/15

Awards

- Ernst Award (Darmstadt, 2015)
- Best Poster Award of the International EPR Society (Prague, 2015)
- Best Poster Award at the 48th Annual International Meeting of the ESR Spectroscopy Group of the Royal Society of Chemistry (Southampton, 2015)

Additional skills

- Programming languages/skills: Python, C++, Matlab, machine learning/deep learning, HPC computing
- Languages: German (C2), English (C1), Russian (native language), French (A2)
- Biochemistry: protein expression, purification, and spin labeling

Publications

- (1) L. M. Denkler, M. Aladahalli Shekar, T. S. J. Ngan, L. Wylie, D. Abdullin, M. Engeser, G. Schnakenburg, T. Hett, F. H. Pilz, B. Kirchner, O. Schiemann, P. Kielb, A. Bunescu, A General Iron-Catalyzed Decarboxylative Oxygenation of Aliphatic Carboxylic Acids, *Angew. Chem. Int. Ed.* 2024, 63, e202403292.
- (2) D. Abdullin, P. Rauh Corro, T. Hett, O. Schiemann, PDSFit: PDS data analysis in the presence of orientation selectivity, g-anisotropy, and exchange coupling, *Magn. Reson. Chem.* 2024, 62, 37.
- (3) C.A. Heubach, Z. Hasanbasri, D. Abdullin, A. Reuter, B. Korzekwa, S. Saxena, O. Schiemann, Differentiating between Label and Protein Conformers in Pulsed Dipolar EPR Spectroscopy with the dHis-Cu²⁺(NTA) Motif, *Chem. Eur. J.* 2023, e202302541.
- (4) D. Abdullin, T. Hett, N. Fleck, K. Kopp, S. Cassidy, S. Richert, O. Schiemann, Magneto-Structural Correlations in a Mixed Porphyrin(Cu²⁺)/Trityl Spin System: Magnitude, Sign and Distribution of the Exchange Coupling Constant, *Chem. Eur. J.* 2023, 29, e202203148.
- (5) T. Gavrilova, A. Yagfarova, S. Khantimerov, D. Abdullin, N. Kosova, N. Suleimanov, ESR Investigations of the Submicron LiFe_{1-x}Mn_xPO₄ Systems, *Magnetochemistry* 2022, 8, 74.
- (6) D. Abdullin, M. Suchatzki, O. Schiemann, Six-pulse RIDME sequence to avoid background artifacts, *Appl. Magn. Reson.* 2022, 53, 539-554.
- (7) O. Schiemann, C.A. Heubach, D. Abdullin et al., Benchmark test and guidelines for DEER/PELDOR experiments on nitroxide labeled biomolecules, *J. Am. Chem. Soc.* 2021, 143, 17875-17890.
- (8) D. Nguyen,[#] D. Abdullin,[#] C. A. Heubach, T. Pfaffeneder, A. Nguyen, A. Heine, K. Reuter, F. Diederich, O. Schiemann, G. Klebe, Unraveling a ligand-induced twist of a homodimeric enzyme by pulsed electron-electron double resonance, *Angew. Chem. Int. Ed.* 2021, 60, 23419-23426.
- (9) D. Abdullin, O. Schiemann, Localization of Metal Ions in Biomolecules by means of Pulsed Dipolar EPR Spectroscopy, *Dalton Trans.* 2021, 50, 808-815.
- (10) S. Spicher, D. Abdullin, S. Grimme, Olav Schiemann, Modeling of spin-spin distance distributions for nitroxide labeled biomacromolecules, *Phys. Chem. Chem. Phys.* 2020, 22, 24282-24290.
- (11) D. Abdullin,* AnisoDipFit: Simulation and Fitting of Pulsed EPR Dipolar Spectroscopy Data for Anisotropic Spin Centers, *Appl. Magn. Reson.* 2020, 51, 725-748.
- (12) D. Abdullin,* O. Schiemann, Pulsed Dipolar EPR Spectroscopy and Metal Ions: Methodology and Biological Applications, *ChemPlusChem* 2020, 85, 353-372.
- (13) C. Wuebben, S. Blume, D. Abdullin, D. Brajtenbach, F. Haege, S. Kath-Schorr, O. Schiemann, Site Directed Spin Labeling of RNA with a gem-Diethylisindoline Spin Label: PELDOR, Relaxation and Reduction Stability, *Molecules* 2019, 24, 4482.
- (14) D. Abdullin, P. Brehm, N. Fleck, S. Spicher, S. Grimme, O. Schiemann, Pulsed EPR Dipolar Spectroscopy on Spin Pairs with one Highly Anisotropic Spin Center: The Low-Spin Fe(III) Case, *Chem. Eur. J.* 2019, 25, 14388-14398.
- (15) D. Abdullin, H. Matsuoka, M. Yulikov, N. Fleck, C. Klein, S. Spicher, G. Hagelueken, S. Grimme, A. Lützen, O. Schiemann, Pulsed EPR Dipolar Spectroscopy under the Breakdown of the High-Field Approximation: The High-Spin Iron(III) Case, *Chem. Eur. J.* 2019, 25, 8820-8828.
- (16) D. Abdullin, N. Fleck, C. Klein, P. Brehm, S. Spicher, A. Lützen, S. Grimme, O. Schiemann, Synthesis of μ_2 -Oxo-Bridged Iron(III) Tetraphenylporphyrin-Spacer-Nitroxide Dimers and their Structural and Dynamics Characterization by using EPR and MD Simulations, *Chem. Eur. J.* 2019, 25, 2586-2596.
- (17) K. Wittich, Y. NejatyJahromy, D. Abdullin, O. Schiemann, A. Karpov, K. Dobner, F. Rosowski, R. Glaum, Silver Vanadyl(IV) ortho-Pyrophosphate: Synthesis, Crystal Structure, and Characterization of the (V=O)²⁺ Group, *Z. Anorg. Allg. Chem.* 2018, 644, 424-429.
- (18) M. Kerzhner, D. Abdullin, J. Więcek, H. Matsuoka, G. Hagelueken, O. Schiemann, M. Famulok, Post-synthetic Spin Labeling of RNA via Click Chemistry for PELDOR Measurements, *Chem. Eur. J.* 2016, 22, 12113-12121.
- (19) D. Abdullin,[#] G. Hagelueken,[#] O. Schiemann, Determination of Nitroxide Spin Label Conformations via PELDOR and X-ray Crystallography, *Phys. Chem. Chem. Phys.* 2016, 18, 10428-10437.
- (20) A. Meyer, D. Abdullin, G. Schnakenburg, O. Schiemann, Single and Double Nitroxide Labeled Bis(terpyridine)copper(II): The Influence of Multispin and Jahn-Teller Effects on PELDOR and RIDME, *Phys. Chem. Chem. Phys.* 2016, 18, 9262-9271.

- (21) D. Abdullin, F. Duthie, A. Meyer, E.S. Müller, G. Hagelueken, O. Schiemann, Comparison of PELDOR and RIDME for Distance Measurements between Nitroxides and Low-Spin Fe(III) Ions, *J. Phys. Chem. B* 2015, 119, 13534-13542.
- (22) D. Abdullin, N. Florin, G. Hagelueken, O. Schiemann, EPR-Based Approach for the Localization of Paramagnetic Metal Ions in Biomolecules, *Angew. Chem. Int. Ed.* 2015, 54, 1827-1831.
- (23) D. Abdullin, G. Hagelueken, R. I. Hunter, G.M. Smith, O. Schiemann, Geometric model-based fitting algorithm for orientation-selective PELDOR data, *Mol. Phys.* 2015, 113, 544-560.
- (24) G. Hagelueken, D. Abdullin, O. Schiemann, mtsslSuite: Probing biomolecular conformation by spin labeling studies, *Meth. Enzym.* 2015, 563, 595-622.
- (25) S.C. Roy, R. Glaum, D. Abdullin, O. Schiemann, N. Quang Bac, K.-H. Lii, Solid Solution Formation between Vanadium(V) and Tungsten(V) Oxide Phosphate, *Z. Anorg. Allg. Chem.* 2014, 640, 1876-1885.
- (26) G. Hagelueken, D. Abdullin, R. Ward, O. Schiemann, mtsslSuite: In silico spin labelling, trilateration and distance-constrained rigid body docking in PyMOL, *Mol. Phys.* 2013, 111, 2757-2766.
- (27) F. A. Nizamov, P. N. Togulev, D. Abdullin, S. M. Khantimerov, P. Balaya, N. M. Suleimanov, Antisite Defects and Valence State of Vanadium in $\text{Na}_3\text{V}_2(\text{PO}_4)_3$, *Physics of the Solid State*, 2016, 58, 475-480.
- (28) N. Suleimanov, S.R.S. Prabakaran, D. Abdullin, M.S. Michael, Electron Spin Resonance Studies of Lithium-Ion Battery Materials, in *Nanotechnology in Advanced Electrochemical Power Sources* (Eds.: S.R.S. Prabakaran, M.S. Michael), Pan Stanford, Singapore, 2014, pp. 199-220.

* Corresponding author; # Equal contribution

Conference presentations (oral)

- (1) Invited talk at the *Rocky Mountain Conference*, 2022, Copper Mountain, USA.
- (2) Invited talk at the *IES Virtual EPR Meeting*, 2021.
- (3) Talk at *Annual International Meeting of the ESR Spectroscopy Group of the Royal Society of Chemistry*, 2019, Glasgow, UK.
- (4) Invited talk at the *Awaji International Workshop on Electron Spin Science & Technology*, 2017, Awaji Island, Japan.
- (5) Talk at the *FGMR Discussion Meeting*, 2015, Darmstadt, Germany.
- (6) Talk at the *Awaji International Workshop on Electron Spin Science & Technology*, 2015, Awaji Island, Japan.

Conference management

- (1) Member of the local organizing committee, *46th FGMR Annual Discussion Meeting of the Division of Magnetic Resonance (FGMR) of the German Chemical Society (GDCh)*, 2025, Bonn, Germany.
- (2) Member of the organizing committee, *Young Investigators in Magnetic Resonances*, 2023, Konstanz, Germany.