

Curriculum Vitae

1. Personal Data

Name: Vladimir Dyakonov, Prof. Dr.
Address: Chair of Experimental Physics 6
Physikalisches Institut
Julius-Maximilian-Universität Würzburg (JMU)
Position: Full Professor (C4)

2. Academic Education

1986 M.S. (Diploma) in Physics, University of Leningrad, USSR

3. Academic Degrees

2001 Habilitation in Experimental Physics, Universität Oldenburg
1996 PhD in Physics, A.F. Ioffe-Institute, St. Petersburg

4. Professional Career

since 2004 Full Professor (C4), Experimental Physics 6, University of Würzburg (JMU)
2005-2020 Scientific Director, Bavarian Centre of Applied Energy Research (ZAE Bayern)
1998-2004 Scientific Assistant and Group Leader, University of Oldenburg, Germany
1997-1998 Postdoctoral Researcher, University of Linz, Austria
1996-1997 Postdoctoral Researcher, University of Antwerp, Belgium
1990-1995 Research Assistant, University of Bayreuth, Germany
1987-1990 Junior Researcher, A.F. Ioffe-Institute, St. Petersburg, Russia

5. Selected Functions in Academia and Research

Committee memberships

since 2021 Scientific Advisor, Bavarian Centre of Applied Energy Research (ZAE Bayern)
2018-2019 Managing Director, Institute of Physics, University of Würzburg
2013-2015 Dean of the Faculty of Physics and Astronomy, University of Würzburg
2008-2013 Chairman of the Board, ZAE Bayern
since 2012 Board of Trustees, SKZ-German Plastics Center
2010-2011 Spokesman, German Renewable Energy Research Association (FVEE)
2007-2009 Vice-Dean of the Faculty of Physics and Astronomy, University of Würzburg
2006-2020 Board of Directors, German Renewable Energy Research Association (FVEE)

Reviewing activities

since 2001 Reviewer for ERC; DFG; AvH; DAAD; Carl-Zeiss-Stiftung; DoE; NWO; FWF; BSF, ERA-NET and for journals SpringerNature, AAAS, APS, Wiley-VCH, ACS

Current research projects (selection)

- Würzburg-Dresden Cluster of Excellence on Complexity and Topology in Quantum Matter—ct.qmat (EXC 2147, project-id 39085490, DFG), PI
- Perovskite semiconductors: From fundamental properties to devices (SPP2196, DFG), Proposer, Coordination team, PI
- Spins for Efficient Photovoltaic Devices based on Organic Molecules (SEPOMO) (EU Horizon 2020), PI
- Polytype and isotope engineering of silicon carbide for quantum microwave amplifiers (DFG-RSF), Coordinator

6. Scientific Interests

- Quantum sensing, spin-photon interface
- Novel photovoltaic materials and devices
- Organic LED
- Optical, electrical and spin-resonance spectroscopy of semiconductors

7. 10 Selected Publications (Total number 200 (WoS), h-Index: 58 (WoS), 70 (Google Scholar))

A. Gottscholl, M. Diez, V. Soltamov, C. Kasper, A. Sperlich, M. Kianinia, C. Bradac, I. Aharonovich, V. Dyakonov

Room temperature coherent control of spin defects in hexagonal boron nitride

arXiv: 2010.12513 (under review at AAAS)

N. Mendelson, D. Chugh, J. R. Reimers, T. S. Cheng, A. Gottscholl, H. Long, C. J. Mellor, A. Zettl, V. Dyakonov, P. H. Beton, S. V. Novikov, C. Jagadish, H. H. Tan, M. J. Ford, M. Toth, C. Bradac, I. Aharonovich

Identifying carbon as the source of visible single-photon emission from hexagonal boron nitride

Nat. Mater. (2020). DOI: 10.1038/s41563-020-00850-y

A. Gottscholl, M. Kianinia, V. Soltamov, C. Bradac, Ch. Kasper, K. Krambrock, A. Sperlich, M. Toth, I. Aharonovich, V. Dyakonov

Room Temperature Initialisation and Readout of Intrinsic Spin Defects in a Van der Waals Crystal

Nat. Mater. 19, 540 (2020)

V.A. Soltamov, C. Kasper, A.V. Poshakinskiy, A.N. Anisimov, E.N. Mokhov, A. Sperlich, S.A. Tarasenko, P.G. Baranov, G.V. Astakhov, V. Dyakonov

Excitation and coherent control of spin qubit modes in silicon carbide at room temperature

Nat. Commun. 10, 1678 (2019)

H. Kraus, D. Simin, C. Kasper, Y. Suda, S. Kawabata, W. Kada, T. Honda, Y. Hijikata, T. Ohshima, V. Dyakonov, G. V. Astakhov

3D Proton Beam Writing of Optically Active Coherent Vacancy Spins in Silicon Carbide

Nano Letters 17, 2865 (2017)

A. Baumann, S. V  th, P. Rieder, M. C. Heiber, K. Tvingstedt, V. Dyakonov

Identification of Trap States in Perovskite Solar Cells

J. Phys. Chem. Lett. 6, 2350–2354 (2015)

F. Fuchs, B. Stender, M. Trupke, D. Simin, J. Pflaum, V. Dyakonov, G. V. Astakhov

Engineering near infrared single photon emitters with optically active spins in ultrapure silicon carbide

Nat. Comm. 6, 7578 (2015)

K. Tvingstedt, O. Malinkiewicz, A. Baumann, C. Deibel, H. J. Snaith, V. Dyakonov, H. J. Bolink

Radiative efficiency of lead iodide-based perovskite solar cells

Sci. Rep. 4, 6071 (2014)

H. Kraus, V. A. Soltamov, D. Riedel, S. V  th, F. Fuchs, A. Sperlich, P. G. Baranov, V. Dyakonov, G. V. Astakhov

Room temperature quantum microwave emitters based on spin defects in silicon carbide

Nat. Phys. 10, 157 (2014)

D. Stich, F. Sp  th, H. Kraus, A. Sperlich, V. Dyakonov, T. Hertel

Triplet-triplet exciton dynamics in single-walled carbon nanotubes

Nat. Photon. 8, 139 (2014).

W  rzburg, January 2021