

Curriculum Vitae

1. Personal Data

Name: Vladimir Dyakonov, Prof. Dr.
Address: Chair of Experimental Physics 6, Physikalisches Institut, Julius Maximilian Universität Würzburg (JMU), Würzburg, Germany
Position: Full Professor (C4)
Identifiers: 0000-0001-8725-9573
WoS ResearcherID: F-6862-2013
<https://scholar.google.de/citations?user=p51ebk0AAAAJ&hl=en>

2. University Education

1986 Diploma in Physics, University of Leningrad, USSR

3. Academic Degrees

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

4. Academic Career

since 2004 Full Professor, Chair of Experimental Physics 6, JMU
2005-2020 Scientific Director, Bavarian Centre of Applied Energy Research (CAE), Germany
1998-2004 Postdoc and Group Leader, University of Oldenburg, Germany
1997-1998 Lise-Meitner Postdoctoral Fellow, 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, Leningrad, USSR

5. Service to the Community

Committee memberships

since 2021 Member of the Faculty Council (Fakultätsrat), Faculty of Physics and Astronomy, JMU
since 2021 Scientific Advisor, Centre for Applied Energy Research e.V. (CAE)
2018-2019 Managing Director, Institute of Physics, JMU
2013-2015 Dean of the Faculty of Physics and Astronomy, JMU
2008-2013 Chairman of the Board, ZAE Bayern
2012-2020 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, JMU
2006-2020 Board of Directors, German Renewable Energy Research Association (FVEE)

Reviewing activities

Funding Agencies: ERC; DFG; AvH; DAAD; Carl-Zeiss-Stiftung; ANR; DoE; NWO; FWF; BSF, ERA-NET; Journals: SpringerNature, AAAS, APS, Wiley-VCH, ACS etc.

Current research projects (since 2022)

ERC Advanced Grant "BoNi-SENS" (Project-ID 101055454), PI
Free State of Bavaria project "IQ-Sense - Integrated Spin Systems for Quantum Sensors", Coordinator, PI
DFG Würzburg-Dresden Cluster of Excellence on Complexity and Topology in Quantum Matter—ct.qmat (EXC 2147, Project-ID 39085490), PI
DFG "Perovskite semiconductors: From fundamental properties to devices" (SPP2196), Proposer, Coordination team, PI

6. Areas of Research

Optical, electrical and spin-resonance spectroscopy of semiconductors and insulators
Spin-defects, quantum sensing, spin-photon interface
Spin-dependent processes in photovoltaic and LED materials (perovskites, organics)

7. Ten Selected Publications (Total: 232 (WoS), H-Index: 68 (WoS), 84 (Google Scholar))

S. Gorgon, K. Lv, J. Grüne, B.H. Drummond, W.K. Myers, G. Londi, G. Ricci, D. Valverde, C. Tonnelé, P. Murto, A.S. Romanov, D. Casanova, V. Dyakonov, A. Sperlich, D. Beljonne, Y. Olivier, F. Li, R.H. Friend, E.W. Evans
Reversible spin-optical interface in luminescent organic radicals
Nature **620**, 538–544 (2023)

E. Kirstein, D. R. Yakovlev, M. M. Glazov, E. A. Zhukov, D. Kudlacik, I. V. Kalitukha, V. F. Sapega, G. S. Dimitriev, M. A. Semina, M. O. Nestoklon, E. L. Ivchenko, N. E. Kopteva, D. N. Dirin, O. Nazarenko, M. V. Kovalenko, A. Baumann, J. Höcker, V. Dyakonov, M. Bayer
The Landé factors of electrons and holes in lead halide perovskites: universal dependence on the band gap
Nat. Commun. **13**, 3062 (2022)

Y. Ding, B. Ding, H. Kanda, O. J. Usiobo, T. Gallet, Zh. Yang, Y. Liu, H. Huang, J. Sheng, Ch. Liu, Y. Yang, V. I. E. Queloz, X. Zhang, J.-N. Audinot, A. Redinger, W. Dang, E. Mosconi, W. Luo, F. De Angelis, M. Wang, P. Dörflinger, M. Armer, V. Schmid, R. Wang, K. G. Brooks, J. Wu, V. Dyakonov, G. Yang, S. Dai, P. J. Dyson & M. K. Nazeeruddin
Single-crystalline TiO₂ nanoparticles for stable and efficient perovskite modules
Nat. Nanotechnol. **17**, 598-605 (2022)

S. Weissenseel, A. Gottscholl, R. Bönnighausen, V. Dyakonov, A. Sperlich
Long-Lived Spin-Polarized Exciplex States in Thermally Activated Delayed Fluorescence-Based Organic Light-Emitting Diodes
Science Adv. **7**, abj9961 (2021)

A. Gottscholl, M. Diez, V. Soltamov, C. Kasper, D. Krauß, A. Sperlich, M. Kianinia, C. Bradac, I. Aharonovich, V. Dyakonov
Spin defects in hBN as promising temperature, pressure and magnetic field quantum sensors
Nat. Commun. **12**, 4480 (2021)

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
Science Adv. **7**, eabf3630 (2021)

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)

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)

H. Kraus, V. A. Soltamov, D. Riedel, S. Väh, 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).