

## 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  
F-6862-2013  
<https://scholar.google.de/citations?user=p51ebk0AAAAJ&hl=en>

### 2. Academic Education

1986 Diploma in Physics, University of Leningrad, USSR

### 3. Academic Degrees

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

### 4. Professional Career

since 2004 Full Professor, Experimental Physics 6, 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 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, 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, JMU  
2013-2015 Dean of the Faculty of Physics and Astronomy, JMU  
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, JMU  
2006-2020 Board of Directors, German Renewable Energy Research Association (FVEE)

#### *Reviewing activities*

Reviewer for ERC; DFG; AvH; DAAD; Carl-Zeiss-Stiftung; DoE; NWO; FWF; BSF, ERA-NET, 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

Optical, electrical and spin-resonance spectroscopy of semiconductors  
Color centers, quantum sensing, spin-photon interface,  
Spin-dependent processes in photovoltaic materials (perovskites, organics)  
Organic light emitting diodes

## 7. Selected Publications (Total: >220 (WoS), H-Index: 63 (WoS), 75 (Google Scholar))

S. Weissenseel, A. Gottscholl, R. Bönninghausen, 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)**

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. 20, 321-328 (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)**

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. Väh, 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)**

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).**

Würzburg, January 2022