

# Leopoldina Nationale Akademie der Wissenschaften

# **Curriculum Vitae Professor Dr. Dieter Bimberg**

Name:	Dieter Bimberg
Born:	10 July 1942



Image: Ulrich Dahl

#### Academic and Professional Career

since 2018	Excecutive Director des "Bimberg Chinese-German Center for Green Photonics of the Chinese Academy of Sciences at CIOMP Changchun", China
since 2011	Adjunct Distinguished Professor, King Abdulaziz University, Jeddah, Saudi Arabia
2004 -2015	Executive Director, Center of NanoPhotonics, Technical University of (TU) Berlin,
1990 - 2011	Executive Director, Institute of Solid State Physics, TU Berlin
since 1982	University Professor (Chair of Applied Physics), TU Berlin
1979 - 1981	University Professor, Faculty of Electrical Engineering, Institute of Solid State Electronics, Rheinisch-Westfaelische Technische Hochschule (RWTH) Aachen,
1974 - 1979	Principal Scientist, Head of Optics Department, RWTH Aachen
1972 - 1974	Senior Scientist, Max-Planck-Institute of Solid State Research, High Field Laboratory Grenoble, France
1971 - 1972	Assistant Professor, Goethe University Frankfurt
1969 - 1971	Research Assistant, Goethe University Frankfurt
1967 - 1969	Teaching Assistant, Goethe University Frankfurt

### Project coordination, Membership in collaborative research projects (Selection)

2011 - 2013 Coordinator of bmbf VIP-Program "HOFUS"

2006 - 2010 Coordinator of FP7 STREP "VISIT"

2006	Founding Chairman of the Center of Excellence (Sfb 787) and Graduate School of the German National Research Council (DFG) on "Semiconductor NanoPhotonics"
since 2003	Member of Executive Board of "International Postgraduate School of Engineering and Advanced Technologies" Berlin and of the Interdisciplinary Research Program "Photonics", Germany
2002	Chairman: International Workshop on "Nano-Optoelectronics", Berlin, Germany
2000	Chairman: Japanese – German Symposium on "Strategies in Nanotechnology", Berlin
1998 - 2013	Chairman of the Board of Directors of the German Federal Government "Center of Competence on NanoOptoelectronics"
1994 - 2006	Chairman of Center of Excellence (Sfb 296) of the German National Research Council (DFG) on "Growth Related Properties of Low Dimensional Semiconductor Structures"
1997 - 1998	Chairman of the "Optoelectronics Consortium" of the State of Berlin
1996	Chairman of the Program Committee of the 23d Intern. Conf. on the Physics of Semiconductors, Berlin
1994 - 1997	Chairman of the Interdisciplinary Research and Development Organisation "Optoelectronics" of the State of Berlin

#### Functions in Scientific Societies and Committees (Selection)

- since 2012 Science and Engineering Council of Singapore, A\*STAR
- since 2011 Associate Editor of Photonics Technology Letters of IEEE
- since 2009 Associate Editor of the Journal of Photonics of IEEE
- since 2008 Editor of Springer Series in NanoScience and Technology
- since 2007 Associate Editor IET Optoelectronics Journal
- 2010 2014 Member of the Board of Technopark Skolkovo Ltd. Moscow
- 2010 2014 Member of the International Advisory Board of the Skolkovo Foundation Moscow
- 2009 Chairman of "Nanotech Europe" conference in Berlin
- 2009 Chairman of the International Workshop on Nano-Optoelectronics in Berlin
- 2004 2012 Member of the Excecutive Board of the European Network of Excellence "SANDIE" on self-assembled nanostructures for devices
- 1998 2006 Member of Program or Advisory Committees of ICPS

## Honours and Awarded Memberships (Selection)

2018	Nick Holonyak Jr. Award of the Optical Society of America (OSA)
2018	Honororary doctorate of the Academic University St. Petersburg of the Russian Academy of Sciences
2015	Honorary Doctorate of the University of Lancaster
2015	Welker Award of the International Symposium on Compound Semiconductors
since 2014	Foreign Member of the National Academy of Engineering, USA
2012, 2014, 2015	Green Photonics Award of the International Society of Optics and Photonics
2012	UNESCO Medal and Award for "Development of Nanosciences and Nanotechnologies"
2011	Elected Foreign Member to the Russian Academy of Science
2010	IEEE Photonics Society William Streifer Scientific Achievement Award
2010	Fellow of The Institute of Electrical and Electronic Engineers (IEEE)
2006	Joint Max-Born-Award and Medal of the Institute of Physics (UK) and the German Physical Society
2004	Member of the German National Academy of Sciences Leopoldina
2002	Fellow of the American Physical Society
2003	State Prize of Science and Technology of the Russian Federation awarded by President Putin (First foreign Awardee since 1955)
1995	Honorary Member, loffe Institute of the Russian Academy of Sciences, St. Petersburg
1994	Honorary Member, Pakistan Society of Semiconductor Physics
1989	Prize of Japanese Society of Applied Physics (Oyo Buturi Prize)

#### **Major Scientific Interests**

Dieter H. Bimberg was the first bringing together theoretical and experimental insight to the electronic structure, the fundamentals of growth and the optical properties of quantum dots and QD based devices. His present research includes the growth and physics of nanostructures and nanophotonic devices, ultrahigh speed, photonic devices for the future Terabus and 100 G Ethernet, single/entangled photon emitters for quantum cryptography, all contributing to "green" photonics, showing minimum energy consumption. His team was the first to develop a 1 GHz single photon emitter based on a RCLED technology including oxide apertures. His work on the ultimate nanomemory based on quantum dots is in literature dubbed the "holy grail of memories".