

Date of birth: *August 13th, 1979*; Place of birth: *Rokycany, Czech Republic*; Nationality: *Czech*

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since 11/2011 associate professor (*docent*), University of West Bohemia, Faculty of Applied Sciences, [Department of Physics](#) and [research centre NTIS](#)

6/2011-11/2012	Humboldt Fellowship awardee, RWTH Aachen University (Germany)
2/2010-10/2011	assistant professor, University of West Bohemia, Department of Physics (since 1/2011 also research centre NTIS)
3/2007-3/2009	postdoctoral fellow, Ecole Polytechnique de Montreal (Canada)
1/2003-1/2010	research fellow, University of West Bohemia, Department of Physics (full time since 1/2006; unpaid leave during research stays abroad)

3/2004-1/2007	Ph.D.	University of Sydney (Australia), School of Physics
9/2002-1/2007	Ph.D.	University of West Bohemia, Faculty of Applied Sciences
9/1997-6/2002	Ing.	University of West Bohemia, Faculty of Applied Sciences

solid state physics and physics of thin films, preparation of thin film materials (especially magnetron sputtering), modelling of atom-by-atom film growth by classical MD, ab-initio calculations of structures and properties of thin film materials, design of multilayered coatings (especially thermochromic), characterization of thin films (especially optical properties and phase composition), methodology of atomic-scale simulations and new ways how to use them to support the experiment

2011-2013 (6 months)	RWTH Aachen University (Germany)
2007-2009 (24 months)	Ecole Polytechnique de Montreal (Canada)
2004-2005 (12 months)	University of Sydney (Australia)

2019-2021	principal investigator of the project "Design of novel functional materials, and pathways for their reactive magnetron sputtering, using advanced computer simulations" (Czech Science Foundation <i>GAČR</i> , CZK 5 173 000 = EUR 200 000)
2015-2017	principal investigator of the project "Design of new functional materials, and pathways for their atom-by-atom preparation, using advanced computer simulations" (Czech Science Foundation <i>GAČR</i> , CZK 3 714 000 = EUR 135 000)
2011-2012	principal investigator of the project "Physics-based description of the TiO ₂ growth during ion bombardment" (Alexander von Humboldt Foundation, EUR 58 500)
since 2002	team member of 10 other research projects (Czech Science Foundation; Czech Ministries of Education and Regional Development; Natural Sciences and Engineering Research Council of Canada; H2020 of European Union)
since 2003	2× principal coordinator and 1× co-coordinator of development projects (University of West Bohemia; University Development Fund <i>FRVŠ</i>)

Selected teaching and student supervision experience

- guarantor and lecturer of the course [Solid State Physics 1 and 2](#)
- guarantor and lecturer of the course [Modelling of Plasma and Solid State](#)
- supervisor of 9 finished undergraduate theses
- supervisor of 2 ongoing Ph.D. theses

Publications

- [80 refereed journal papers](#)
- 43 refereed journal papers as a first and corresponding author (36×) or his supervisor (7×):
(3×Acta Materialia, ACS Applied Materials & Interfaces, 2×Solar Energy Materials & Solar Cells, 2×Computational Materials Science, 2×Applied Surface Science, Physical Review B, etc.)
- Web of Science: >700 citations without autocitations (currently around 100 per year), h-index 21
- 10 plenary/invited/keynote conference talks: e.g. ICMCTF 2010 (San Diego, USA); AEPSE 2015 (Jeju, S. Korea); IUVSTA 2018 (Vadstena, Sweden); PSE 2018 (GaPa, Germany); EMRS 2019 (Nice, France); IVC 2019 (Malmo, Sweden); PSE 2020 (Erfurt, Germany)

Awards

- 2018 Prize of the president of the Czech Science Foundation GAČR ([text](#), [video](#), [Czech TV](#))
(project of the year in the field of technical sciences)
- 2016 Outstanding reviewer award of Journal of Physics D: Applied Physics
- 2010 participant of 60th Nobel laureate meeting with selected young scientists in Lindau, Germany
- 2007 Dean's prize (physics thesis of the year)
- 1996 and 1997 member of Czech team at the International Physics Olympiad

Selected other activities

- 2020-2022: member of the International Program Committee, PSE Conference, Erfurt (Germany)
- 2016-2018: chairman and organizer of the symposium B (sessions B1-B7) "Hard Coatings and Vapor Deposition Technology", 43rd-45th ICMCTF conference, San Diego (USA)
- 2015-2019 and again since 2021: member of the evaluation panel "Materials science and engineering" (P108) of the Czech Science Foundation GAČR
- 2013-2015: chairman and organizer of the session B5 "Hard and Multifunctional Nano-Structured Coatings", 40th-42nd ICMCTF conference, San Diego (USA)
- >200 reviewer's reports, currently >30 per year (most often for Surf. Coat. Technol., Thin Solid Films, J. Phys. D [also member of the advisory panel], J. Phys. Condens. Mat., Appl. Surf. Sci.)