

Family name, First name: **Neugebauer, Petr**

Researcher unique identifiers, ORCID: **0000-0001-7095-6401** / Research ID: **I-7844-2013**

Date of birth: **13<sup>th</sup> September 1980**; Nationality: **Czech Republic**; Web site: [www.spectroscopy.ceitec.cz](http://www.spectroscopy.ceitec.cz)

I am the group leader of the Magneto-Optical and THz Spectroscopy group at the Central European Institute of Technology (CEITEC). I supervise or supervised over 50 people (12 nationalities) in the areas of magnetic resonance, molecular magnetism and THz technology. I have over 15 years' worth of experience with the construction of THz measurements system. I have an established track record in the development of ESR methods and NMR signal enhancement using Dynamic Nuclear Polarization (DNP). I am routinely applying these methods to study the electronic properties of molecular nanomagnets, as well as solid state materials in the context of many national and international projects. In this regards I attracted more than 8 MEUR from national and international funds.

I am author or co-author of 54 original scientific papers in ISI-indexed journals with over 2307 citations and I have h-index = 20 according to Web of Science.

## EDUCATION

- 2020 Docent (Assoc. Prof.) in applied physics, Brno University of Technology, Czech Republic. Habilitation work: *High Frequency Electron Spin Resonance Spectroscopy: Today and Tomorrow*.
- 2010 Ph.D. at Université Joseph Fourier and Grenoble High Magnetic Field Laboratory, France. *Development of a Heterodyne High-Field / High-Frequency Electron Paramagnetic Resonance Spectrometer at 285 GHz*, under supervision of Dr. A.-L. Barra.
- 2000 Master's (Dipl.-Ing.) at Brno University of Technology, Institute of Physical Engineering, Brno, Czech Republic. *Design of facility for in situ area monitoring of thin films (UV-VIS Reflectometry)* under supervision of Prof. J. Spousta.

## CURRENT POSITION

- 2018 – present Group leader and founder of Magneto-optical and THz Spectroscopy group (25 people) at Central European Institute of Technology (CEITEC), [www.spectroscopy.ceitec.cz](http://www.spectroscopy.ceitec.cz), Brno University of Technology, Czech Republic. Principal investigator of **ERC Starting Grant** (AN714850) and **GACR EXPRO** (21-20716X).

## PREVIOUS POSITIONS

- 2012 – 2017 Postdoctoral fellow, since 2014 group leader at University of Stuttgart, Institute of Physical Chemistry, Germany. Main topics: High-Field / -Frequency ESR, Frequency Domain Magnetic Resonance spectroscopy, THz spectroscopy, Molecular magnetism.
- 2010 – 2012 Postdoctoral fellow at Center for Biomolecular Magnetic Resonance and Goethe University Frankfurt, Institute of Physical and Theoretical Chemistry, Germany. Main topics: Dynamic Nuclear Polarization and pulsed High-Field / -Frequency ESR spectroscopy.

## ADDITIONAL FELLOWSHIPS AND AWARDS

- 2020 Director's Award, Project of the Year, CEITEC, Czech Republic.
- 2010 – 2012 Stipend: CEF – Cluster of Excellence Frankfurt, Center for Biomolecular Magnetic Resonance and Goethe University Frankfurt, Germany
- 2008 – 2009 Early stage researcher fellowship through MAGMANet FP6-NMP3-CT-2005-515767, Grenoble High Magnetic Field Laboratory (GHMFL), France
- 2005 – 2008 Marie Curie fellowship through QuEMolNa FP6-CT-2003-504880, GHMFL, France  
Additionally: Travel grant through SPP1601-EPR-SHARED DFG-NSF collaboration; DAAD travel grant; Hermann Willkomm Stiftung; AMPERE Student Grant (twice); 2016 International EPR society award

## SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

- Since 2018 Brno University of Technology, Czech Republic: 12 Postdoctoral (1x Danubius Award, 6x EU-MŠMT stipends) / 11 PhDs (4x Brno PhD talent awards) / 14 MSc & BSc / 12 ERASMUS Students / 3 High School Students (1x CEITEC student talent award)
- 2012 – 2017 University of Stuttgart, Institute of Physical Chemistry, Germany: 2 PhDs / 3 Masters / 6 ERASMUS Students

## TEACHING ACTIVITIES

- Since 2015 Brno University of Technology, Czech Republic: Lecturing to master and PhD students –

- Magnetic resonance spectroscopy (winter/summer semester).  
 Since 2018 Ecole Centrale Casablanca, Morocco: Magnetic resonance spectroscopy (12 hours/year).  
 2016 Peking University and Xi'an Jiaotong University, China: Invited lectures (2x 16 hours).  
 2012 – 2017 University of Stuttgart, Institute of Physical Chemistry, Germany: Lecturing to master students – Advance Materials and Analysis; Basic and advanced practical courses in thermodynamics, electrochemistry, kinetics, statistics and spectroscopy.  
 2010 – 2012 Goethe University Frankfurt, Institute of Physical and Theoretical Chemistry, Germany: Basic and advanced practical courses in thermodynamics, electrochemistry, kinetics, statistics and spectroscopy;

#### ORGANISATION OF SCIENTIFIC MEETINGS

- 2019 Chair and main organizer: 8<sup>th</sup> International School of European Federation of EPR ([www.eprschoool.ceitec.cz](http://www.eprschoool.ceitec.cz)) / 140 participants / Brno, Czech Republic.  
 2018 Organizer: International Summer School: PETER Summer School ([www.peter-instruments.eu/inpage/summer-school](http://www.peter-instruments.eu/inpage/summer-school)) / 90 participants / Brno, Czech Republic  
 2015 Main organizer: German-Czech workshop: *Self-organized functional layers of molecular quantum bits and Magnetic anisotropy – clue to the secret of single-molecule magnets* / 27 participants / Krásná Hora, Czech Republic  
 2014 Main organizer: Join German-Slovak workshop: *Molecular magnetism* / 15 participants / Prachatice, Czech Republic

#### INSTITUTIONAL RESPONSIBILITIES

- Since 2018 Member of wider management of CEITEC, Brno Uni. of Technology, Czech Republic.  
 2015 – 2017 Professorship finding committee, University of Stuttgart, Faculty of Chemistry, Germany

#### REVIEWING ACTIVITIES

- Since 2022 Evaluator of Scientific Proposals, National High Magnetic Field Lab., Tallahassee, USA.  
 Since 2022 Member of Scientific Selection Panel at Helmholtz-Zentrum Berlin, Germany.  
 Since 2021 Evaluator of habilitation (Assoc. Prof.) works at Brno Uni. of Technology and Uni. of South Bohemia, Czech Republic.  
 Since 2012 Reviewer of scientific journals: Science, Review of Scientific Instruments; Journal of Magnetic Resonance; IEEE journal: Transactions on Magnetics; Magnetic Resonance in Chemistry, Coatings, etc.  
 Since 2014 Evaluator of scientific proposals: GAČR, DFG.

#### MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- Since 2018 Member, EU International Training Network “*BeMAGIC*”.  
 Since 2016 Member of International EPR (ESR) Society and AMPER Society.  
 Since 2015 Member of Elite program Baden-Württemberg, Germany.  
 2012 – 2019 Member of DFG German Priority Program (SPP1601) network, Germany.

#### LIST OF SELECTED ORAL PRESENTATIONS IN LAST YEAR (59 in total)

- 2021/12 Uni. of Chicago, Dep. of Radiation & Cellular Oncology, USA – invited talk  
 2021/11 Penn State University, Material Research Institute, USA – invited talk  
 2021/11 Modern Development of Magnetic Resonance, Kazan, Russia. – invited talk  
 2021/10 Max Planck Inst. für Chemische Energiekonversion, Mülheim, Germany– invited talk  
 2021/09 Università degli Studi di Firenze, Italy – invited talk  
 2021/09 University of Modena and Reggio Emilia, Italy – invited talk  
 2021/09 Universidade Federal de Itajubá, Brazil – invited talk.  
 2021/08 22<sup>nd</sup> American Conference on Crystal Growth and Epitaxy – invited talk  
 2021/07 EUROMAR2021, Slovenia – invited talk  
 2021/04 Modeling of Electronic Structure in Material Science, Morocco – invited talk  
 2021/04 Czech NMR meeting Valtice – invited talk

#### INTERNATIONAL PROJECTS PARTICIPATION

- 2020 – 2025 BeMAGIC, European Innovative Training Networks (ITN) – GA 861145  
 2020 – 2023 EU, MŠMT, INTER-ACTION project, Georgetown University, Washington DC  
 2018 – 2021 PETER project - Horizon 2020 - FET OPEN – GA 767227  
 2016 – 2019 Naval Research project with P. Barbara, Georgetown University, Washington DC  
 2015 – 2016 DAAD – German-Czech scientific exchange project – Molecular Magnetism