

Curriculum Vitae of PÉTER NÉMETH



Born	Pápa (Hungary), 1978
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Office address 3	Research Institute of Biomolecular and Chemical Engineering, University of Pannonia, Egyetem út 10, 8200 Veszprém, Hungary.

EDUCATION AND EMPLOYMENT HISTORY

1996 – 2001	MSc studies, Eötvös Loránd University, Budapest, Hungary
2001	MSc in Geology, Eötvös Loránd University
2001 – 2004	PhD student, University of Torino, Italy
2005	PhD (Earth Science), University of Torino, (year of naturalization: 2008, institute of naturalization: Eötvös Loránd University) title of PhD thesis: „Characterization of new mineral phases belonging to the heterophyllosilicate series“
2005– 2006	Postdoctoral Research Associate, Arizona State University, USA
2007– 2013	Research fellow, Institute of Materials and Environmental Chemistry Research Centre, Hungarian Academy of Sciences
2012– 2014	Postdoctoral Research Associate, Arizona State University, USA
2014 –	Senior research fellow, Institute of Materials and Environmental Chemistry Research Centre for Natural Sciences, Eötvös Loránd Research Network
2019-	Technical Assistant, Research Institute of Biomolecular and Chemical Engineering, University of Pannonia
2021-	Senior research fellow, Institute for Geological and Geochemical Research, Research Centre for Astronomy and Earth Sciences, Eötvös Loránd Research Network

FIELDS OF INTEREST

- Structures and properties of diamond nanocrystals; study of next-generation diamonds
- Mineralogical and geochemical investigation of carbonate polymorphic formation processes, study of precursor calcium carbonates.
- Role of atomic resolution electron microscopy for understanding the structures and properties of minerals and synthetic materials.
- Study of defects (dislocations, stacking faults, twins) and phase transitions.

AWARDED GRANTS, FELLOWSHIPS

2011	MTA-JSPS research fellowship (3 weeks), Place of implementation: Ehime University, Matsuyama (Japan) Project title: Nanodiamond synthesis with special attention to lonsdaleite
2012 – 2014	OTKA-NKTH, HUMAN MB08A (30 months), Place of implementation: ASU, Tempe (USA) Project title: Structures and properties of synthetic and natural nanodiamonds
2014 – 2017	Bolyai János Research Fellowship (36 months) Project title: Structures of diamond nanocrystals (classification of the final report: excellent)
2017-	OTKA-NKTH FK123871 (48+12 months) Project title: Structure of cave carbonates - Mineralogical and geochemical analyses of carbonate polymorph formation processes in speleothems.
2017-	OTKA-NKTH KH126501 (24+12 months) Project title: Tracing peculiar diamond nanostructures
2018-	Bolyai János Research Fellowship (36 months) Project title: Carbonate polymorph formation processes in cave sediments and synthetic samples.
2019-2020	ITM ÚNKP-19-4 (10 months) Bolyai+ Higher Education Young Teacher, Research Fellowship Application
2019-	2019-2.1.11-TÉT-2019-00016 (24+12 months) Project title: Cryogenic Cave Carbonates
2020-	ITM ÚNKP-20-5-PE-7 (12 months) Bolyai+ Higher Education Young Teacher, Research Fellowship Application
2020-	OTKA-NKTH-FWF ANN20 134433 (48 months) Project title: Cryogenic Cave Carbonates

PUBLICATION LIST

<https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10014188>

AWARDS

- 1999 **Special award at the Young Scientist Conference**
founder: Geological Institute of Hungary
recognition: Dissertation
- 2001 **Special award at the XXV National Student Conference**
founder: National Scientific Student Conference
recognition: Dissertation
- 2001 **Excellent Student of Eötvös Loránd University**
founder: Eötvös Loránd University
recognition: Outstanding study work and scientific activity
- 2015 **Vendl Mária Award**
founder: Hungarian Geological Society
recognition: Achievements in the study of carbon allotropes and their transformation
- 2018 **Bolyai Memorial Plate**
founder: Hungarian Academy of Sciences
recognition: Outstanding reports about the research in the framework of the scholarship
- 2020 **VEAB Researcher of the Year**
founder: Veszprém Regional Committee of the Hungarian Academy of Sciences
recognition: Outstanding scientific work in the last 10 years

MEMBERSHIPS, PROFESSIONAL SERVICES

- 1998 – member of the Hungarian Geological Society
- 2008 – member of the Hungarian Society for Microscopy
- 2008 – member of the Hungarian Workgroup of Nanominerals
- 2021- member of the Committee of Geochemistry, Mineralogy and Petrology of the Hungarian Academy of Sciences

TEACHING EXPERIENCE

- 2009 – „Theory and practice of electron microscopy” laboratory course for students of Eötvös Loránd University, Budapest University of Technology and Economics and Óbuda University.
- 2019 – „Theory and practice of transmission electron microscopy” laboratory course for students of University of Pannonia.

SUPERVISOR ACTIVITIES

- 2018 – 2020 Supervisor of **Bernadett Berényi PhD, student** in the Doctoral School of Earth Sciences, **ELTE**
Title of PhD project: Study of carbonate precipitating processes in cave sediments and synthetic samples
Due to personal reasons he abandoned his PhD work in March 31, 2020.
- 2019 - Supervisor of **Anett Lázár, MSc** Chemistry student from **University of Pannonia**.
Title of MSc project: Synthesis and transformation of ikaite (calcium carbonate hexahydrate)