

Curriculum vitae - **Károly Lázár**

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Date and place of birth: 16. 06. 1948, Budapest, Hungary

EDUCATION, DEGREES:

- 2001**, Prof. Habil., University of Technology and Economy, Budapest,
- 1992**, Doctor of Sciences, Hungarian Academy of Sciences,
- 1984**, Candidate of Science, (Ph. D.) Hungarian Academy of Sciences,
- 1973**, PhD in Chemistry, Eötvös Loránd University, Budapest,
- 1971**, MSc. in Chemistry, Eötvös Loránd University, Budapest

EXPERIENCES, POSITIONS

- 2018** - Professor emeritus, Centre for Energy Research, Hungarian Academy of Sciences
- 2018** Visiting professor at Dalian Institute of Chemical Physics, Chinese Academy of Sciences
- 2012** - Head, Nuclear Chemistry - Mössbauer spectroscopy team, Research Centre for Energy , Hungarian Academy of Sciences
- 1999** - **2011** Deputy Director of the Institute of Isotopes, Hungarian Academy of Sciences
- 2009** - **2011** Head of the Department of Application of Radioisotopes and the Mössbauer Laboratory
- 1993** - **2008** - Head of the Department of Catalysis and Tracer Studies and the Mössbauer Laboratory - Performing mostly various in situ Mössbauer studies. Studying migration of radioisotopes in geological samples (in relation with perspective disposal of high level nuclear waste).
- 1987-1992** Variety of in situ Mössbauer studies, Research fellow, Institute of Isotopes,
- 1985-1987** In situ ¹¹⁹Sn Mössbauer spectroscopy studies on SnIr bimetallic catalysts, as a fellow at the Institut de Recherches sur la Catalyse, CNRS, Villeurbanne, France
- 1982-1984** Magnetic and Mössbauer spectroscopic study of layered and two-dimensional complexes (as a post-doc at the Department of Chemistry, Northeastern University, Boston, MA, USA)
- 1979-1982** Start of studying catalysts by in-situ Mössbauer measurements: studies of carbide formation of iron in CO + H₂ reaction, and study of bimetallic (PdFe, CoFe, RhFe. etc.) supported catalysts. (Institute of Isotopes, research associate).
- 1971-1979** High-temperature metal-gas reactions, carburization of iron, nickel and alloys, studied by resistivity relaxation and thermopower measurements (Research Associate at the Central Research Institute for Physics, Budapest)
- 1970-1971** Basics of Mössbauer spectroscopy, studies of frozen solutions and iron precipitates. (Graduate student at the Eötvös University, Budapest)

PROJECTS

International – multilateral:

- **Project coordinator : PHARE ACCORD H-9112-0338** (1993-1996, Novel methods for the preparation of nanostructured systems: their characterization and evaluation as heterogeneous catalysts , Budget: 70,000 ECU)
- **Participant: COST CIPE CT 92 6107:** (1995- 1998, Non-conventional preparation of novel uniform zeolite and supported catalysts).
- **Team coordinator: IAEA CRP** (1995 – 2000, Extrapolation of short term observations to time periods relevant to the isolation of long lived radioactive waste)
- **Team coordinator** in the **FUNMIG EU FP6 - 516514** integrated project (Fundamental processes of radionuclide migration, 2005 - 2008),
Team coordinator in the **ReCosy EU FP7 – 212287** collaborative project (Redox Phenomena Controlling Systems, 2008 - 2012)

International - bilateral (*Hungarian coordinator*)

- **1998-2000, CAV – HAS** (J. Heyrovsky Institute – Location of iron in molecular sieve matrices),
- **2000-2001, CNRS – HAS** (with LACCO UMR C6503 at Poitiers University, Study of Ir base catalysts with different crystallite size of different preparations),
- **2006-2009** Cooperation in Science and Technology (with Slovenia, topic: Characterization of iron modified nanoporous silicates)

National grants – coordinator

- **1993-1995** (Preparation and stabilization of ultradisperseous metallic particles - OTKA T07364),
- **1996-1999** (Synthesis and study of nanostructured heterogeneous catalytic centres - OTKA T021131)
- **2000-2003** (Study of change in oxidation states on framework substituted ions in zeolites, OTKA T32249)
- **2007-2010** (Synthesis and characterisation of micro/mesoporous ferrisilicate composites, OTKA K68414)
- **2010-2013** (Extension of the in beam Mössbauer facility for low temperature measurements, OTKA K81863)

MEMBERSHIPS

2000-2006 ([IBAME](#), International Board on the Applications of the Mössbauer Effect),

2003- [Mössbauer Century Club](#)

2018 - [Affiliate](#) to the Mössbauer Effect Data Center

2018 – **Board for** Doctoral Committee of the Section of Chemical Sciences, Hungarian Academy of Sciences

Associate Editor

2018 - Heliyon/Elsevier (Chemistry Section)

AWARDS

2017 Albert Nelson Marquis Lifetime Achievement Award

CONFERENCE ORGANISATIONS

Organising committee

- **1989, ICAME** (International Conference on the Applications of the Mössbauer Effect, Budapest, Sept, 4 – 8,) and Co-editor of the Proceedings (6 volumes of the Hyperfine Interactions, 2780 pages)
- **1999, 1st FEZA** (Federation of European Zeolite Associations) conference: Porous Materials in Environmentally Friendly Processes (Eger, Sept, 1 – 4)

Co-Chairman

- **2008, ISIAME** (International Symposium on the Industrial Applications of the Mössbauer Effect, Budapest, 17 – 22 August)

PUBLICATIONS and their CITATIONS

Author and/or coauthor of over 220 publications

List of updated publications with corresponding citations in the official database of Hungarian scientific publications <https://vm.mtmt.hu/www/index.php?AuthorID=10000751>

Hirsch index: 28

Personal home page:

www.energia.mta.hu/~lazar