



Europass Curriculum Vitae



Personal information

Surname(s) / First name(s) **DR LÁSZLÓ BORKÓ**

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Nationality Hungarian

Scientific degree PhD and CSc

Academic title "Senior research fellow" Awarded in 1990 by Cabinet Council of SU.

Work experience

Dates 1992 - present

Occupation or position held Senior researcher

Main activities and responsibilities Research in the field of heterogeneous catalysis

Name and address of employer Institute of Isotopes Hungarian Academy of Sciences,
29-33 Konkoly Thege út, 1121 Budapest, Hungary

Type of business or sector Scientific research, chemical reaction kinetics and catalysis

Dates 1981-1992

Occupation or position held Researcher, Senior researcher

Main activities and responsibilities Research in the field of heterogeneous catalysis

Name and address of employer Department of Physical and Colloidal Chemistry, Uzhgorod State University,

Type of business or sector Scientific research, chemical reaction kinetics and catalysis

Dates 1972-1981

Occupation or position held Researcher

Main activities and responsibilities Research in the field of heterogeneous catalysis

Name and address of employer Department of Physical and Colloidal Chemistry, Uzhgorod State University,

Type of business or sector Scientific research, chemical reaction kinetics and catalysis

Dates 1970-1972

Occupation or position held Teacher of chemistry

Main activities and responsibilities	Chemistry, physics
Name and address of employer	Dayka Gabor High School (Uzhgorod)
Type of business or sector	Education
Education and training	
Dates	1985
Title of qualification awarded	Inventor's adviser
Principal subjects/occupational skills covered	Patenting and patent system
Name and type of organisation providing education and training	Patent Office SU
Level in national or international classification	High level law on patent attorney
Dates	1972-1976
Title of qualification awarded	C.Sc , Candidate of Science Naturalization of scientific degree C Sc, Ph D in Hungary-1994
Principal subjects/occupational skills covered	Reaction kinetic and catalysis Title of Thesis: Partial Oxidation of Methane on the Simple and Complex Oxide Catalysts Defended in L.V. Pisarzhevsky Institute of Physical Chemistry, NAS of Ukraine
Name and type of organisation providing education and training	Uzhgorod State University
Level in national or international classification	Ph D
Dates	1965-1970
Title of qualification awarded	MSc in chemistry
Principal subjects/occupational skills covered	Chemistry, physical chemistry
Name and type of organisation providing education and training	Uzhgorod State University
Level in national or international classification	M Sc
Personal skills and competences	
Mother tongue	Hungarian
Other languages	English, German, Russian, Ukrainian
Memberships	
	Scientific Council of Institute of Isotopes HAS (1999-2007) Committee on Environmental Chemistry HAS (1994-) Committee on Catalysis HAS (1992-) Hungarian Zeolite Association (1992-) International Zeolite Association (1994-) Reviewing manuscripts for Catalysis Letters, Applied Catalysis, Reaction Kinetics and Catalysis Letters (1992-)
Main research areas	
	chemical kinetics and catalysis scientific prediction of catalytic properties catalytic oxidation non-oxidative transformations of methane into hydrocarbons and other carbon formations catalytic elimination of N ₂ O and CH ₄

Publications and presentations	More than 104 publications, 35 presentations at international conferences, 4 patents issued, 3 patents use (exploitation) working
Honors	"Inventor of USSR" (by Patent Office of SU, 1987) 1 st prize of the Ukrainian National Exposition for the best exploitation use of an invention (1987) Academic title "senior research fellow" (by Cabinet Council of SU, 1992)
Selected publications	<ol style="list-style-type: none"> 1. L. Gucci, K.V. Sarma, L. Borkó, Non-oxidative methane coupling over Co-Pt/ NaY bimetallic catalysts, <i>Catal. Lett.</i>, 39,(1996).43. 2. L. Gucci, K. V. Sarma, L. Borkó, Low temperature methane activation under non-oxidative conditions over supported ruthenium- cobalt bimetallic catalysts , <i>J. Catal.</i>, 167 (1997) 495. 3. L. Gucci, Zs. Koppány, K. V. Sarma, L. Borkó, I. Kiricsi, Structure and methane activation, in Progress in Zeolite and Microporous Materials, <i>Stud. Surf. Sci. Catal.</i> (Eds.: H. Chon, S.-K. Ihm and Y. S. Uh), Elsevier Sci. Publ. Co., Amsterdam, 105, 1997, p. 861-868. 4. L.Guczi, L. Borkó, Zs. Koppány, F. Mizukami, Effect of hydrogen on methane conversion to hydrocarbons in „one-step”reaction at low temperature over Pd-Co/NaY catalysts prepared by the sol-gel method, <i>Catal. Lett.</i>, 54 (1998) 33 . 5. L. Gucci, L Borkó, Comparative study on hydrogen assisted „one step” methane conversion over Pd-Co/SiO₂ and Pt-Co/NaY catalysts, <i>Catal. Today</i>, 64 (2001) 91. 6. L. Gucci, L. Borkó, Z. Schay, D. Bazin and F. Mizukami, CO hydrogenation and methane activation over Pd-Co/SiO₂ catalysts prepared by sol-gel method, <i>Catal. Today</i>, 65 (2001) 51. 7. L. Gucci, D.Bazin, I. Kovács, L. Borkó, Z. Schay, J. Linch, P. Parent, C. Lafon, G. Stefler Zs, Koppány, I. Sajó, Structure of Pt-Co/Al₂O₃ and Pt-Co/NaY bimetallic catalysts: characterization by in situ EXAFS, TPR, XPS and by activity in CO hydrogenation, <i>Top. Catal.</i>, 20 (2002) 129. 8. L. Borkó, L. Gucci, Non-Oxidative Methane Transformations into Higher Hydrocarbons over Bimetallic Pt-Co Catalysts Supported on Al₂O₃ and NaY, <i>Top. Catal.</i>, 39 (2006) 35. 9. L. Borkó, Z.E. Horvath, Z. Schay, L. Gucci, The role of carbon nanospecies in deactivation of cobalt based catalysts in CH₄ and CO transformation, <i>Stud. Surf. Sci. Catal.</i> (Eds. M. Schmal, F. B. Noronha and E. Falabella), Elsevier Sci. Publ. Co., Amsterdam, 167, 2007, p. 231-236. 10. L. Borkó, Zs. Koppány, Z. Schay, L. Gucci, Novel Mo/Ga/H-ZSM-5 catalyst in environmentally important reductive transformation of N₂O in presence of CH₄, <i>Catal. Today</i>, 143 (2009) 269.
Selected presentations	<ol style="list-style-type: none"> 1. L. Borkó, Z. Schay and L Gucci, Surface initiated gas-phase reaction in oxidation ofm-xylene on supported palladium catalysts, in Book of abstracts (EUROPACAT-3, Krakow, Poland, aug. 31-sept. 6, 1997), 1997, p. 143. (oral presentation). 2. L. Borkó, L. Gucci, Non-oxidative methane conversion to higher hydrocarbons on Al₂O₃ and NaY supported Pt-Co catalysts, in Book of Abstract, EUROPACAT-5 (Limerick, Ireland, 2-7 September, 2001), 2001, 5-O-14. (oral presentation) 3. L. Borkó, L. Gucci, Middle Pressure Methane Conversion into C₂ Hydrocarbons on Supported Pt-Co Catalysts, in 7th Natural Gas Conversion Symposium, Book of Abstracts, (Dalian, China, June 6-10, 2004), pp. 287-288. 4. L.Borkó, L.Guczi, Non-oxidative Methane Transformations on Supported Pt-Co Catalysts: Role of Platinum, in „Catalysis and 21st Century Challenges: Basic Science and the Needs of Society”, CD-ROM, 13th International Congress on Catalysis, (Palais des Congres, Paris, France), 11-16 July, 2004), P-5-108, 2p. 5. L. Borkó, Zs. Koppány, Z. Schay, L. Gucci, Oxidative Transformation of Methane on Mo/Ga/HZSM-5 Catalyst in Presence of N₂O, "Innovations in Oxidation Catalysis Leading to a Sustainable Society", 5th World Cogress on Oxidation Catalysis (Sapporo, Japan, 25-30 September, 2005), pp. 394-395. 6. L. Borkó, Z.E. Horvath, Z. Schay, L.Guczi, The role of carbon nanospecies in deactivation of cobalt based catalysts in CH₄ and CO transformation, in 8th Natural Gas Conversion Symposium, Book of Abstracts, (Natal, Brazil, May 27 -31, 2007) 2p. (oral presentation) 7. L. Borkó, N.V. Vlasenko, Zs. Koppány, Z. Schay, P.E. Strizhak, L. Gucci, Generating of highly active redox sites in reaction between N₂O and CH₄ from acidic centers of Me/H-ZSM-5 and Me/Ga/H-ZSM-5 (Me-Fe, Co, Mo) catalysts, 14th International Congress on Catalysis, Extended Abstracts, CD-ROM, Seoul, Korea, 2008, PII-12-38, 2pp. 8. L. Borkó, N. V. Vlasenko, Zs. Koppány, Z. Schay, P. E. Strizhak, L. Gucci, Self-adjusting preparation of nanosized transition metal oxide catalyst on H-ZSM-5 and Ga/H-ZSM-5 matrix and formation of active centres in reduction of N₂O with CH₄, 6th World Congress on Oxidation Catalysis (Lille, France, 5-10 July, 2009), p. 128-129.