

CV of Zoltan Noszticzius

Personal data

Name Zoltan Noszticzius
Position Professor Emeritus
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Date of birth 31.01.1942

Education

1965 MSc degree in Chemical Engineering, BME, Hungary
1971 PhD in Physical Chemistry "Radioactive tracer diffusion measurements", BME,
Hungary
1981 Candidate of Chemical Sciences "The Belousov-Zhabotinsky Reaction",
Hungarian Academy of Sciences
1989 Doctor of Chemical Sciences "Nonlinear Dynamics in Chemistry and the BZ
Reaction", Hungarian Academy of Sciences)

Employment in Hungary

1965-1973	Assistant lecturer	Department of Physics for Chemical Engineers, BME, Hungary
1973-1984	Lecturer	Department of Physics for Chemical Engineers, BME, Hungary
1984-1991	Associate Professor	Department of Chemical Physics, BME, Hungary
1991-2012	Professor	Department of Chemical Physics, BME, Hungary
1994-2007	Head of the Department	Department of Chemical Physics, BME, Hungary
2007-2012	Head of the Group	Group of Chemical Physics, Department of Physics, BME, Hungary
2012-	Professor Emeritus	Group of Chemical Physics, Department of Physics, BME, Hungary

Employment Abroad

1973 and 1976	Research fellow (4 months in both years)	Department of Physical Chemistry Helsinki University of Technology, Otaniemi, Finland
1981-1982	Postdoctoral fellow (1 year)	Department of Chemistry, University of Texas at Arlington, Texas, USA
1985-1987	Visiting Professor (2 years)	Department of Physics, University of Texas at Austin, Texas, USA
1987 and 1988	Visiting Professor (1 month in both years)	Department of Physical Chemistry Philipps Universität, Marburg, Germany
1988	Research Professor (0,5 year)	Department of Physics, University of Texas at Austin, Texas, USA
1991-1992	Visiting Professor (1 year)	Department of Physics, University of Texas at Austin, Texas, USA
1992, 1994	Visiting Professor (2 months in both years)	Department of Physical Chemistry Philipps Universität, Marburg, Germany
1993	Invited lecturer (1 month)	Finnish Academy of Sciences, Finland
1995, 1996, 1998	Visiting Professor (1 month in each year)	Department of Physical Chemistry Philipps Universität, Marburg, Germany
1997	Invited Researcher (3 months)	Invited Researcher, Institute Nonlineaire de Nice, Nice, France

Awards and prizes

1990	Széchenyi Prize of Hungary
1993	Outstanding lecturer of the Faculty of Chemical Engineering
1999	BME Prize for supporting the scientific research of students (TDK)
1997-2000	Széchenyi distinguished Professorship donated by the Hungarian Ministry of Education
2003	Polányi Chief Prize of the Hungarian Academy of Sciences
2006	Outstanding Professor of the Faculty of Natural Sciences
2015	Gran Prize of the Swedish Chamber of Commerce in Hungary

Research interest

- Oscillatory reactions and halogen chemistry
- Nonlinear dynamics of reaction- and reaction-diffusion systems
- Acid-base diodes
- Medical applications of high purity chlorine dioxide solutions
See: SOLUMIUM: www.solumium.com

Teaching activity

- Previously: physics for chemical emgineers (mechanics, electrodynamics)
- Special courses on dynamical systems

Students supervised

- MSc students: Zoltán Sobor (1969), András Schubert (1970), Matild Eszterle (1972), János Bódiss (1978) Szilveszta Pintér(1992), Gábor Marlovits (1992), Szilveszter Nagygyóry (1993), Attila Lázár(1993), Ákos Papp (1995), László Hegedűs (1995), András Volford (1997), Kristóf Iván (2002), Krisztina Pelle (2003), Gabriella Taba (2004), Klára Lovrics (2005), Anikó Várnai (2007)
- PhD students: Attila Lázár (1997), András Volford (2002), Norbert Kirschner (2003), Lavinia Onel (2006), Kristóf Iván (2006), Krisztina Pelle (2007), Krsitóf Kály-Kullai (2007), László Hegedűs (2007), László Roszol (2010)

Memberships and professional service

- Member of the MTA Committee of Reaction Kinetics and Photochemistry 1992-
- Organizer of the European Network „Nonlinear and Complex Systems in Chemistry and Biology” conference in Budapest 1995
- Organizer of the Hungarian-Japanese TÉT project and its conference: „Complex chemical dynamics in polymer matrices” held in Budapest 1997.
- Initiator of the Reactor Programme of the European Science Foundation . 2000-2003: member of the Steering Committee 2003-2005 Chairman of the Steering committee
- CEO and foudere of the Solumium Ltd. (www.solumium.com) 2007

Grants, fellowships, projects (since 1994)

1994-1995	MKM 135/94 “Image processing system to study chemical waves and patterns” (2.4m Ft)
1994-1995	Copernicus CIPA-CT92-4012 “Nonlinear and Complex Systems in Chemistry and Biology” (3.5m Ft)
1995-1998	OTKA T017041 “Nonlinear dynamics of complex systems” (3.8m Ft)
1997-1998	Hungarian-Japanese TÉT “Complex chemical dynamics in polymer matrices” (1.14m Ft + 11.97m Jen)
1999-2002	OTKA T030110 “Nonlinear dynamics of complex systems” (6.5m Ft)
2003	Conference for the European Science Foundation Reactor Program at Budapest (31000 Euro)
2003-2006	OTKA K42708 “Nonlinear dynamics of reaction- and reaction-diffusion systems” (5.9m Ft)
2006-2011	OTKA K60867 “Nonlinear dynamics of reaction- and reaction-diffusion systems” (11m Ft)
2009	OMFB-01673/2009 (later: IPARJOG-08-01-2009-0030) “SOLUMIUM” (7.66m Ft)
2009-2014	OTKA K77908 “Nonlinear dynamics of reaction- and reaction + diffusion + ionic migration systems” (14.8m Ft)

Invited talks

1979	Aachen, Germany, plenary lecture
1980	Heidelberg, Germany, plenary lecture
1984	Bordeaux, France, plenary lecture
1987	Brussels, Belgium, plenary lecture
1991	NewPort, Rhode Island (USA), Gordon conf., plenary lecture
1994	Tsukuba, Japan, plenary lecture
1995	Würzburg, Germany, Bunsen Kolloquium
1999	Barga, Italy, Gordon conf., plenary lecture
2001	Manchester, UK, Faraday Discussions, plenary lecture
2002	Heidelberg, Germany, Dynamics Days Europe, plenary lecture

Languages

English (master),

Scientific impact (as of 08/2015)

110 papers in referred journals (Web of Sci.)

165 including all types of publications (MTMT)

5 patents (3 in the US, 1 in Europe, 1 in China)

50+ invited conference talks and seminars

Total number of independent citations (Web of Sci.): 2041

H-index (Web of Sci.): 26

Complete list of publications: <https://vm.mtmt.hu/www/index.php?lang=1&AuthorID=1028747>

Five selected publications

1. Holló G, Kály-Kullai K, Lawson T B, **Noszticzius Z**, Wittmann M, Muntean N, Furrow S D, Schmitz G. *HOI versus HOIO selectivity of a molten-type AgI electrode* J Phys Chem A. **118**, 4670-4679. (2014)
2. **Noszticzius Z**, Wittmann M, Kály-Kullai K, Beregvári Z, Kiss I, Rosivall L, Szegedi J. *Chlorine Dioxide Is a Size-Selective Antimicrobial Agent*. PLoS ONE **8(11)**: e79157. doi:10.1371/journal.pone.0079157 (2013)
<http://www.plosone.org/article/Metrics/info:doi/10.1371/journal.pone.0079157> (open access)
3. Roszol, L., Lawson, T., Koncz, V., **Noszticzius, Z.**, Wittmann, M., Sarkadi, T., Koppa, P. *A micro-patterned polyvinyl butyral membrane for acid-base diodes* J. Phys. Chem. B., **114**, 13718-25 (2010)
4. **Noszticzius Z.**, Horsthemke W., McCormick W.D., Swinney H.L. Tam W.Y.: *Sustained chemical waves in an annular gel reactor: a chemical pinwheel* Nature **329**, 619-620 (1987)
5. **Noszticzius Z.**, Bódiss J. *A Heterogeneous Chemical Oscillator. The Belousov-Zhabotinskii-Type Reaction of Oxalic Acid" J. Am. Chem. Soc. **101**, 3177-3182 (1979)*