

Curriculum Vitae

Károly Héberger

Name: Károly (Charles) Héberger

Date of birth: 16 Aug. 1953

Universities: Sept. 1972 - June 1977

Technical University of Budapest

Faculty of Chemical Engineering

Section of Organic and Synthetic Chemistry

Pharmaceutical Branch

Diploma Work was made in the Polytechnic University of Tallinn
(Estonia) 1977

topic: Characterization of Systematic Errors During Measuring and
Evaluation of Vapor-Liquid Equilibrium Data by Mathematical
Statistical Methods

Working Places:

- Central Research Institute for Chemistry of the Hungarian Academy of Sciences, Budapest, Hungary. Supervisor: Prof. Dr. D. Gál, from the 1st of Sept. 1977. (Ph.D. student, research associate, senior research associate and finally scientific advisor) Since the reorganization of the Institute, its name has been changed into Chemical Research Center, Hungarian Academy of Sciences and finally Research Centre for Natural Sciences, Hungarian Academy of Sciences.
- Max-Planck-Institut für Strömungsforschung, Göttingen, Germany. Supervisor: Prof. Dr. H. Gg. Wagner, between Jan. 1987 - Aug. 1989. (Post. doc.)
- Physikalisch-Chemisches Institut der Universität Zürich, Zürich, Switzerland. Supervisor: Prof. Dr. H. Fischer, between Apr. 1990 - Aug. 1992. (~Assistant professor) and between Sept. 1997 - Jan. 1998 (Private docent).
- European Commission, Joint Research Centre, Institute for Health and Consumer Protection, Physical and Chemical Exposure Unit, BEVABS, Ispra (VA), Italy, between July 01, 2004 – June 30, 2005 (visiting scientist).
- European Commission, Joint Research Centre, Institute for Health and Consumer Protection, Physical and Chemical Exposure Unit, BEVABS, Ispra (VA), Italy, between Sept. 16, 2005 – Sept. 15, 2006 (contract agent).

Degrees:

- *Ph.D.*, May 1981, ”*suma cum laude*”
Topic: Thermal Decomposition of α -Phenyl-ethyl Hydroperoxide
- *Candidate of Chemical Science*, June 1990

Topic: Reactions of Methylene Radical with Benzenes and Alkylbenzenes

- *Doctor of the Hungarian Academy of Sciences* (Feb. 2000)

Topic: Empirical Correlation Equations in the Physical Organic Chemistry (Chemometric Approach)

- *Titular Professor* (Budapest University of Technology and Economics, June 28 / 2011).

Knowledge of languages: German (high degree), English, Russian (medium degree)

Paper-reviews for:

Acta Alimentaria (5), Acta Silvatica et Lignaria Hungarica (1), Acta Chimica Slovenica (1), Analytica Chimica Acta (51), Analytical Chemistry (3), Analytical & Bioanalytical Chemistry (18), Analytical Letters (5), Analytical Methods (11), Annals of Medicine (1), Arabian Journal of Chemistry (1), Beverages (1), Biomedical Chromatography (2), Bioorganic Chemistry (1), Bioorganic & Medicinal Chemistry (3), Biotechnology Progress (2), Bulletin of the Chemical Society of Ethiopia (2), Chemical Industry and Chemical Engineering Quarterly (3), Chemical Papers (1), Chemical Reviews (1), Chemistry Central Journal (3), Chemistry Central Journal - Heritage Science (3), Chemometrics and Intelligent Laboratory Systems (50), Chemosphere (4), Chromatographia (27), Chromatography Research International (2), Concepts in Magnetic Resonance Part A (1), Croatica Chemica Acta (11), Current Computer Aided Drug Design (2), Ecotoxicology and Environmental Safety (1), Environmental Engineering and Management Journal (2), Food Analytical methods (4), Food Chemistry (57), Food Control (1), Food Science and Technology International (2), Fresenius Environmental Bulletin (2), Fuel (2), Geophysics Research Letters (2), Heritage Science (3), International Journal of Analytical Chemistry (1), International Journal of Chemical Kinetics (2), International Journal of Environmental Analytical Chemistry (1), International Journal of Industrial Chemistry (1), International Journal of Molecular Sciences (2), Internet Electronic Journal of Molecular Design and Internet Electronic Journal of Theoretical Chemistry (1), Journal of Agricultural and Food Chemistry (21), Journal of Alloys and Compounds (1), Journal of Analytical Methods in Chemistry (former Journal of Automated Methods and Management in Chemistry) (4), Journal of Applied Statistics (1), Journal of Chemical Information and (Computer Sciences) Modeling (4), Journal of Chemical and Engineering Data (2), Journal of Cheminformatics (3), Journal of Chemometrics (35), Journal of Chromatographic Science (39), Journal of Chromatography A (134), Journal of Chromatography B (19), Journal of Colloid and Interface Science (2), Journal of Computer-Aided Molecular Design (1), Journal of Ecology and the Natural Environment (1), Journal of Food Science (4), Journal of Hazardous Materials (1), Journal of Inclusion

Phenomena (1), Journal of the Iranian Chemical Society (3), Journal of Molecular Structure (17), Journal of Pharmaceutical and Biomedical Analysis (8), Journal of Pharmacy and Pharmacology (1), Journal of Physical Organic Chemistry (5), Journal of Planar Chromatography – Modern TLC (2), Journal of Separation Science (16), Journal of the Iranian Chemical Society (1), Kuwait Journal of Science and Engineering (1), Letters in Drug Design & Discovery(online) (3), LWT - Food Science and Technology (2), Magyar Kémiai Folyóirat (1), MATCH - Communications in Mathematical and in Computer Chemistry (3), Materials Science and Engineering B (2), Medicinal Chemistry (1), Microchemical Journal (1), Mini Reviews in Medicinal Chemistry (1), ACH Models in Chemistry (4), Molecular Biosystems (1), Molecular Diversity (4), Molecular Informatics (2), Molecules (5), Nitric Oxide (1), Nutrition and Dietary Supplements (1), QSAR and Combinatorial Sciences (7), Pattern Recognition Letters (1), Polymer Bulletin (3), Química Nova (1), Reaction Kinetics and Catalysis Letters (1), Reaction Kinetics, Mechanism and Catalysis (3), RSC Advances (14), SAR and QSAR in Environmental Sciences (5), Scientometrics (2), Sensors & Actuators B: Chemical (10), Separation Science and Technology (1), Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy (2), Statistics and Operation Research Transactions (1), Structural Chemistry (1), Talanta (18), Trends in Analytical Chemistry (4), Water Science and Technology (4).

Review of project proposals for the International Science Foundation (Washington, DC), Hungarian Scientific Foundation (OTKA, Hungary) Ministry of Education and Science of the Republic of Serbia (New 4-year project cycle in basic research, applied research and priority research fields, Serbia); Fundacja na rzecz Nauki Polskiej (FNP) Poland, Research Grants Council Hong Kong, China;

Editorial Board member: Acta Chromatographica (till 2007); Journal of Chemometrics (since 2011); Journal of Analytical Methods in Chemistry (earlier Journal of Automated Methods and Management in Chemistry, since 2011); Journal of Metabolomics (since 2014); International Journal of Quantitative Structure-Property Relationships (since 2015)

Guest editor: Chemometrics and Intell. Lab. Syst. Vol. 67 issue 1 and Vol. 72 issue 2 (ACE CC 2003), Journal of Chemometrics Vol. 22 issue 3-4 (Conferentia Chemometrica 2007), Journal of Chemometrics Vol. 23 issue 4 (4th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry), Journal of Chemometrics Vol. 24 issue 3-4 (Conferentia Chemometrica 2009), Journal of Chemometrics Vol. 25 issue 5 (5th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry), Journal of Chemometrics Vol. 26, issue 3-4 (Conferentia Chemometrica 2011), Analytica Chimica Acta (CAC 2012 special

issue, partly), Journal of Chemometrics Vol. 28 issue 4, Journal of Chemometrics Vol. 30 (in preparation, issue 3-4)

Prizes: “Prize for Excellent Work” Hungarian Chemical Society, May 09, 2003.

“High Standard Prize” Hungarian Chemical Society, three times: May 14, 2004, May 18, 2011 and May 23, 2013

“Excellent poster award” 2/67; Scientific days of the MTA TTK, 2012.

Other experiences:

- *Teaching:* 5 semesters (terms) at Physikalisch-Chemisches Institut der Universität Zürich, Zürich, Switzerland (Physical Chemistry Laboratory Training Course); Multivariate Data Analysis Methods (Chemometrics) 1 and 2, since 2001.
- *Organization of Conferences:*
2nd International Specialist Meeting of the Combustion Institute on Oxidation (secretary of program subcommittee, editor of abstract book) 1982, Budapest
Kemometria’94, ’95, and ’98 (member of the scientific committee), Zamárdi, Veszprém and Lillafüred, (Association of Hungarian Chemists) Hungary,
CC’97 Conferentia Chemometrica, 1997 Budapest (member of the scientific committee, editor of abstract book), Kemometria’99 (Szeged), Kemometria’01 (Pécs), Kemometria’02 (Tata), ACE&CC 2003 (Budapest, chair) CC 2005 (Hajdúszoboszló, chair), CC 2007 (Budapest, chair) CC 2009 (Siófok, Chair), CC 2011 (Sümege, chair), CAC 2012 ((Budapest, chair), CC 2013 (Sopron, chair), CC 2015 (Budapest, chair), etc.
- *Leading of projects:*
“Searching quantitative - chromatographic retention relationships”
Research Period: 1990-1994, Hungarian Science Foundation: OTKA No: 1782
“Application, testing and development of chemometric methods in quantitative structure - activity and in quantitative structure – retention relationships”, Research Period: 1995 –1997, prolonged till November 30, 1998, Hungarian Science Foundation: OTKA No: T016231
“Elaboration and further development of new variable selection methods for environmental sciences” Research Period: 1999–2000, Academic Research Projects: AKP No: 98-51 2,4.
“Testing and development of new chemometric methods”. Research Period: 1999 –2001, Hungarian Science Foundation: OTKA No: T029748
“Searching Quantitative Structure Activity Relationships with application of new chemometric methods” Hungarian Science Foundation: OTKA No: T037684 (2002-2005)

- *Ph.D. Students:*

RÁCZ, ANITA	presently	ÉDI-BCE & MTA TTK
SÁGI-KISS VIRÁG	2012	ÉDI-BCE
FARKAS ORSOLYA	2008	OGDI
FORLAY-FRICK PÉTER	2004	OGDI
VANYÚR ROZÁLIA	2004	OGDI

Memberships:

Association of Hungarian Chemists, Head of the Chemometric Section (Analytical Branch).

QSAR and Modeling Society (International), American Association for the Advancement of Science (2000)

Scientific interests:

- Liquid phase oxidation, radical processes, inhibition, modeling, computer simulations.
- Determination of rate constants by fast-flow technique LMR detection and by kinetic ESR spectroscopy.
- Linear free energy relationships in radical reactions
- Quantitative - structure activity relationships, QSAR, QSPR, QSRR.
- Quantitative - structure (gas-chromatographic) retention relationships.
- Chemometrics: Multivariate techniques, principal component analysis, stepwise linear regression, error analyses, non-linear fits, partial least squares, variable selection, searching correlations, model building, validation, evaluation of large data sets, classification of food products, clustering, pattern recognition, ranking, etc.

Scientific results were presented in >**150** papers and more than **280** lectures or posters. The papers were cited above **2700** times (without self - citations and cross - references).

	Web of Sci	Scopus	Google Scholar	Research Gate	own
No of publications	144	132	176	135	157
All citations	2939	3006	3585	2832	-
Without self-citations	2592	2512	-	-	2736
Hirsch index	29	30	32	RG score 40.05*	30
i10-index	71	70	76	-	71

*Your score is higher than 97.5% of ResearchGate members

A temporarily updated list of publications, lectures and citations can be found at:

<http://www.chemres.hu/scientist/heberger/>

Orcid ID 0000-0003-0965-939X

Budapest, Jan. 27, 2015,

Károly Héberger