CV of Gábor Várhegyi

Personal Information

- Place and date of birth: Budapest, 1947
- Married, two grown-up children

Address

Eper u 2/A Budapest, Hungary 1112
 Email: varhegyi.gabor@t-online.hu

Phone: +36 1 2461894, Cell phone: +36 30 4153243

Degrees

- 1994: Doct. Habil., Budapest University of Technology and Economics
- 1992: Doctor of Chemical Science (D.Sc.), Hungarian Academy of Sciences
- 1980: Candidate of Chemical Science (C.Sc.), Hungarian Academy of Sciences (recognized as PhD by the Budapest University of Technology and Economics)
- 1973: Doctoral degree, Loránd Eötvös University of Sciences, Budapest
- 1970: M.Sc. in Chemistry, Loránd Eötvös University of Sciences, Budapest

Positions

- 1 July 2013 Independent scientist
- 1 July 2013 External advisor of the Institute of Materials and Environmental Chemistry, Research Centre for Natural Sciences, Hungarian Academy of Sciences. Earlier positions in this Institute and its predecessors: Head of the Group of Thermal Reaction Studies (2008-2013); Head of Department of Environmental Chemistry (1999-2007); Head of Department of Thermal Analysis (1998); Head of Department of Macromolecular Chemistry (1996-1997); Scientific adviser (1992-1995), Senior researcher (1980-1992); Researcher (1973 - 1979)

Projects

- 2014-2017: Participant in Norwegian project Enabling the biocarbon value chain for energy (BioCarb+, http://www.sintef.no/Projectweb/BioCarb/Enabling-the-biocarbon-value-chain-for-energy-BioCarb/)
- 2008-2012: Project Manager of a Hungarian OTKA research project entitled "Study of the Chemical Processes of Biomass Utilization". (See the Final Report here)
- 2005-2007: Project Manager of the Hungarian team in a LIFE project of the European Union entitled *"Biochar based co-generation alternative"* (Acronym: BioCoAl, contact number: LIFE05 ENV/IT/00801)
- 1995-2005: Project Manager in Hungarian research projects on biomass and other fuels.
- 1993-1996: Project Manager of the Hungarian team in a JOULE II project of the European Union ("Fuel reactivity and release of pollutants and alkali vapours in pressurized solid fuel combustion for combined cycle power generation", JOU2CT920037)



• 1990-1997: Principal Investigator in two consecutive US - Hungarian Science and Technology Joint Fund grants on biomass research (1990-1997)

Main Research Topics

- Thermal decomposition and gasification/combustion properties of biomass materials and other solid fuels
- Reaction kinetic evaluation of experiments at arbitrary temperature time functions assuming complex mechanism schemes
- Developing software for reaction kinetic evaluation, computer control, data acquisition and data processing of measurement systems

Experience Abroad

- 2005 : Visits at the Norwegian University of Science and Technology, Trondheim and at the SINTEF Energy Research, Trondheim. Subject: biomass research and teaching on PhD courses.
- 2007-2009: Visits at the China University of Petroleum. Subject: biomass research. (Guest professor title: 2009-2014).
- 1987 2000: Visits at the Hawaii Natural Energy Institute of the University of Hawaii, USA. Subject: Charcoal formation from biomass materials (18 months combined)
- 1996: Visiting scientist at the National Institute for Resources and Environment, Japan. Subject: Thermochemical conversion of biomass materials (2 months)
- 1973 1974: Postdoctoral research scholarship at the École Polytechnique, Paris, France. Subject: thermodynamics (6 months)

Memberships

- Working Committee for Thermal Analysis of the Hungarian Academy of Sciences (President from Sept 2008 till April 2018)
- Member of the National Committee of The Combustion Institute

Publications

- Author/coauthor of 109 English language research papers (see the <u>list</u>).
- The Scopus database shows ca. 5000 independent citations till 11 December 2018 (pdf).
 The overall number of citations by Scopus is around 5700 while the h index is 36
 (https://www.mendeley.com/profiles/gbor-vrhegyi/stats/). Google Scholar collected around 7500
 citations with an h index of 40 (https://scholar.google.hu/citations?user=rQE887IAAAAJ&hl=en).
- An article [Várhegyi et al, 1997] is currently the fifth by the number of citations in the *Journal of Analytical and Applied Pyrolysis* (an Elsevier journal) as shown by *Scopus*. (See the top of this list here).