

Curriculum Vitae

Mgr. Magdaléna Hromadová, PhD.

Born: 27th July 1968 in Piešťany, Slovak Republic
Nationality: Slovak

I graduated *Summa cum laude* in 1991 in Nuclear Chemistry at Comenius University (Bratislava, Czechoslovakia). In 1992–1993 I received a Soros/FCO Scholarship at the University of Oxford, UK, where I studied the structure of adsorbed films by neutron reflection (prof. R. K. Thomas, FRS). In 1998 I completed the PhD. studies in Electrochemistry (prof. R. de Levie) at Georgetown University, D.C., USA and in 2000 postdoctoral studies at the University of California, Davis, USA (prof. W.R. Fawcett).

Since 2001 I have been employed as a research scientist at the J. Heyrovský Institute of Physical Chemistry of the Academy of Sciences of the Czech Republic, where I am heading the Department of Molecular Electrochemistry since 2008 (in 2018 renamed to Department of Electrochemistry at Nanoscale). I am also involved in the education process by giving electrochemistry courses at the University of Chemistry and Technology, Czech Republic.

In 2007 I was the recipient of the Klaus-Jürgen Vetter Prize for Electrochemical Kinetics.

I am an author/coauthor of 94 full papers in the refereed journals, coauthor of three book chapters and author of more than 100 contributions in the conference proceedings with h-index 20 and over 1200 citations based on the Web of Science citations report (September 2018).

My main interest is in the field of electron transfer mechanisms and kinetics with particular focus on the different aspects of electron transfer and the effect of interfaces on the electron transfer rates. This includes double-layer effects at single crystal electrodes, the role of charge distribution in the redox couple on the electron transfer rates, modification of the electrode surfaces by the adsorbed films, oscillatory phenomena and modification of the immediate environment of the reacting species and its influence on the electron transfer rates.

Knowledge of the electron transfer properties of newly synthesized organic molecules is particularly useful for their future application in the field of molecular electronics. Recently I have implemented in the J. Heyrovsky Institute of Physical Chemistry the Scanning Tunneling Microscopy Break Junction (2010) and Mechanically Controllable Break Junction (2015) techniques for the measurements of conductance values at the single molecule level. My research is particularly focused on the electron transfer within the systems containing multiple redox centers and the electronic communication between them.

I am an active member of the Czech Chemical Society and International Society of Electrochemistry. In the period 2010-2015 I served as a regional ISE representative for the Czech Republic with all the responsibilities of the recruitment of new members and organization of the ISE supported meetings. I was involved in the Division 6 activities as a Vice Chair during the period 2017-2018 (ISE symposia, organizational issues).

Short program statement for Division 6 Chair Elect nomination:

Based on my previous experience as a regional ISE representative and a Vice Chair of Division 6, I can appreciate the importance of the work for the Society in its promotion among the electrochemists and young people at both national and international level. As a Chair Elect of Division 6 my goal is to promote Molecular Electrochemistry among electrochemists within ISE and beyond.