

Curriculum vitae

Personal data:

Name: Dr. Gábor Kovács

Date of birth: 20th June 1979

Affiliation: Universitat Autònoma de Barcelona, Bellaterra, Spain

Position: Postdoctoral researcher in the AQUACHEM programme

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Earlier positions:

2006- Professor Assistant at the University of Debrecen

Studies:

2006 Ph.D. from the University of Debrecen

2002-2005 Ph. D. student at the University of Physical Chemistry, University of Debrecen, under the supervision of Prof. Ferenc Joó

2002 Degree with honours at the University of Debrecen as a chemist and special translator (English)

1997-2002 Studies at the University of Debrecen, finished all the semesters with excellent results, received the "Scholarship of the Republic" for 3 consecutive years.

Research and training periods:

2005: 3 months scholarship as a part of the HPC-Europe Network in Barcelona, in the group of Prof. Agustí Lledós

2002- Ph. D. fellowship in the group of Prof. Ferenc Joó: Mechanistic investigation of water soluble Rh(I)- and Ru(II)-phosphine catalysts

1998-2002: Undergraduate research work at the Institute of Physical Chemistry under the supervision of Prof. Ferenc Joó: Experimental investigation of H/D exchange catalyzed by water soluble complexes of rhodium and ruthenium

1999, 2002: Three and one month fellowship at the Université de Lausanne under the supervision of Dr. Gábor Laurenczy: Application of high pressure NMR-spectroscopy in the examination of organometallic catalysis

Language knowledge:

English - special translator degree, equivalent with advanced language exam

Russian - intermediate language exam

Spanish - intermediate level

French - intermediate level

Catalan - basic level

Italian - basic level

Others:

Computer: 3 year experience in using Gaussian, some experience in using ADF and Jaguar softwares; experience in Windows, Office, Linux and Chemical Applications like Chemdraw, Chemcraft, Molden, Molekel, Ortep, Gaussview, etc.

Hobbies: chess, sports, music

List of publications**Papers**

1. Kovács, G.; Nádasdi, L.; Joó, F.; Laurency, G.: H/D exchange between H₂-D₂O and D₂-H₂O catalyzed by water soluble tertiary phosphine complexes of ruthenium(II) and rhodium (I), *Compt. Rend. French. Acad. Sci., Series IIC Chemistry* **2000**, *3*, 601.
2. Kovács, G.; Nádasdi, L.; Laurency, G.; Joó, F.: Aqueous organometallic catalysis. Isotope exchange reactions in H₂-D₂O and D₂-H₂O systems catalyzed by water-soluble Rh- and Ru-phosphine complexes, *Green Chemistry* **2003**, *5*, 213.
3. Kovács, G.; Schubert, G.; Joó, F.; Pápai, I.: Theoretical Mechanistic Study of Rhodium(I) Phosphine-Catalyzed H/D Exchange Processes in Aqueous Solutions, *Organometallics* **2005**, *24*, 3059.
4. Kovács, G.; Schubert, G.; Joó, F.; Pápai, I.: Theoretical investigation of catalytic HCO₃⁻ hydrogenation in aqueous solutions, *Catal. Today* **2006**, *115*, 53.
5. Kovács, G.; Pápai, I.: Hydride Donor Abilities of Cationic Transition Metal Hydrides from DFT-PCM Calculations, *Organometallics* **2006**, *25*, 820.
6. Kovács, G.; Ujaque, G.; Lledós, A.; Joó, F.: Theoretical investigation of the selective of C=C vs. C=O hydrogenation in acidic media catalyzed by [$\{\text{RuCl}_2(\text{mtppms})_2\}_2$],

Organometallics **2006**, *25*, 862.

7. Rossin, A.; Kovács, G.; Ujaque, G.; Lledós, A.; Joó, F.: The active role of the water solvent in the regioselective C=O hydrogenation of unsaturated aldehydes by $[\text{RuH}_2(\text{mtpms})_x]$ in basic media, *Organometallics*; accepted for publication

Lectures and posters presented at conferences and meetings

Lectures

1. **Kovács, G.**; Joó, F.; Nádasdi, L.; G. Laurency, G.: Hydrogen/deuterium exchange between the gas and the aqueous solution phase catalyzed by water soluble phosphine complexes of rhodium and ruthenium, 4th Annual Meeting of the COST D10/0001 Working Group, Debrecen, Hungary, 24-27 May, **2001**
2. **Kovács, G.**; Nádasdi, L.; Joó, F.; Laurency, G.: A H/D csere katalízise ródiium(I) és ruténium(II) vízdoldható foszfin komplexeivel, IX. International Chemistry Conference, Kolozsvár, Romania, 14-16 November, **2003**.
3. **Kovács, G.**: Mechanistic studies on catalytic hydrogenation in water, Working Group Meeting COST action D30-WG0001, Debrecen, Hungary, 7-9 October, **2005**.

Posters

1. **Kovács, G.**; Nádasdi, L.; Joó, F.; Laurency, G.: H/D exchange in aqueous catalytic systems-an important side reaction of catalytic hydrogenation, "*Clean Processes and Environment: the Catalytic Solution*" 12th Jacques Cartier Meeting, Lyon, France, 6-8 December **1999**
2. Laurency, G.; **Kovács, G.**; Nádasdi, L.; Joó, F.: H/D exchange in aqueous catalytic systems - an important side reaction of catalytic hydrogenation, *COST mid Term Evaluation Meeting*, Brussels, Belgium, 4-5 December **1999**
3. **Kovács, G.**; Nádasdi, L.; Joó, F.; Laurency, G.: H/D isotope exchange in aqueous solutions catalyzed by water soluble phosphine-complexes, *Hungarian COST Chemistry Day*, Budapest, Hungary, 20 October **2000**
4. **Kovács, G.**; Nádasdi, L.; Joó, F.; Laurency, G.: H/D exchange between $\text{H}_2\text{-D}_2\text{O}$ and $\text{D}_2\text{-H}_2\text{O}$ in aqueous solution – catalytic effect of the soluble phosphine complexes of

ruthenium (II) and rhodium (I), *Workshop of COST Action D10 Final Evaluation Meeting*, Kraków, Poland, 6-9 June **2002**

5. **Kovács, G.**; Schubert, G.; Pápai, I.; Joó, F.: Theoretical investigation of the H/D exchange in aqueous solutions catalyzed by rhodium(I) phosphine complexes, *14th International Symposium on Homogeneous Catalysis*, Munich, Germany, 5-9 July **2004**

6. **Kovács, G.**; Schubert, G.; Pápai, I.; Joó, F.: Theoretical investigation of the H/D exchange in aqueous solutions catalyzed by rhodium(I) phosphine complexes, *Euroconference on New Theoretical and Spectroscopical Approaches to Inorganic Problems*, San Feliu de Guixols, Spain, 4-9 September **2004**

7. **Kovács, G.**; Ujaque, G.; Rossin, A.; Lledós, A.; Joó, F.: Theoretical investigation of the selectivity in the hydrogenation of unsaturated aldehydes catalyzed by $\{[\text{RuCl}_2(\text{tppms})_2]_2\}$, *XVI. FECHM Conference on Organometallic Chemistry*, Budapest, Hungary, 3-8 September **2005**

8. **Kovács, G.**; Schubert, G.; Pápai, I.; Joó, F.: Theoretical Mechanistic Study of Rhodium(I) Phosphine Catalyzed H/D Exchange Processes in Aqueous Solutions, *Frontiers in Catalysis*, Visegrád, Hungary, 8-10 September **2005**