

Ferenc Joó

Tótkomlós (Hungary), 1949; Citizenship: Hungarian

Ph.D., L. Kossuth University, Debrecen, Hungary, 1975

Postdoc with H. Alper, U. Ottawa, Canada, 1983-1985

DSc, Hungarian Acad. Sci., 1991

Member, Hungarian Acad. Sci., 2001

Various positions in the Chemistry Dept. of L. Kossuth University (now: U. of Debrecen), (1972-); Leader of the MTA-DE Homogeneous Catalysis and Reaction Mechanisms Research Group, (1995-2017); Chair of the Chemistry Section, Hungarian Academy of Sciences (2011-2017). Professor emeritus (2019-). Active founding member of the Chemistry Doctoral School at the Debrecen University, until now tutor of 17 PhD students with successfully earned degrees.

Since 1972 he has been interested in use of organometallic catalysts in aqueous systems. He applied water-soluble catalysts in synthetic organic reactions and for modification of biological membranes (live cells) by hydrogenation. Present interest: hydrogenation of CO₂ in aq. solutions, chemical storage of hydrogen, and synthesis and catalytic applications of water-soluble complexes of *N*-heterocyclic carbene and salen derivatives.

Adv. Board member of the Int. Symp. Homogeneous Catalysis series. Adv. Board member for "Reaction Kinetics, Mechanisms and Catalysis" and "Catalysis Communications". 3 books, 218 res. publications, ≥5400 independent lit. citations. Hirsch-index: 43.

Major scientific awards: Széchenyi Prize, The President of Hungary; Alcoa Szilárd Leó Prize, Ministry of Culture and Education, Hungary; Condecoración "Alejo Zuloaga", Universidad de Carabobo, Venezuela; Ipolyi Arnold Prize, Hungarian Research Fund, OTKA; Gamboa-Winkler Prize, Royal Spanish Society of Chemistry, RSEQ.; DAB Pro Scientia Medal, Hungarian Academy of Sciences; Chemistry Europe Fellow, Chem Pub. Soc. Europe.

Memberships: Society of Hungarian Chemists, 1972-, American Chemical Society, 1991-; Hungarian Society of Natural Science, 1993-

Relevant recent papers on catalysis:

- Ru-PTA complexes: *J. Mol. Catal. A: Chemical*, 326, 15-20 (2010); *J. Mol. Catal., A: Chemical*, 411, 27-33 (2015); *Tet. Lett.* 55, 3615-3617 (2014); *Coord. Chem. Rev.*, 438, 213871 (2021); *Inorg. Chim. Acta* 520, 120299 (2021).
- Water-soluble NHC-complexes: *Organometallics*, 29 (11) 2484-2490 (2010); *J. Mol. Catal. A: Chemical* 340 (1) 1-8 (2011); *Organometallics* 33, 6330-6340 (2014); *Catalysts* 10, 1361 (2020).
- Water-soluble salen complexes: *Organometallics* 32, 4391-4401 (2013); *ChemSusChem* 7, 2230-2239 (2014); *J. Org. Chem.* 83, 15486-15492 (2018); *Molecules* 25, 3993 (2020).
- Hydrogen storage, formate dehydrogenation: *Angew. Chem. Int. Ed.* 50,10433-10435 (2011); *ChemSusChem* 8, 3036-3038 (2015). *Int. J. Hydrogen Energy* 44, 28527-28532 (2019).
- Hydrogenation, Hydrogen transfer, *para*-Hydrogenation: *ChemCatChem* 11, 3000-3003 (2019); *Catalysts* 10, 17 (2020); *Catal. Commun.* 147, 106153 (2020); *Molecular Catalysis* 500, 111331 (2021).

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