

Jan Storch

Year of birth 1980
Employer Institute of Chemical Process Fundamentals
of the CAS Prague
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PROFESSIONAL INTERESTS / RESEARCH EXPERTISE

His research interests include organic chemistry and synthesis, chemistry of extended aromatic compounds (helicenes, phenacenes). He is particularly focused on various applications of those materials in organic radical batteries, energy storage and optoelectronics.

LEADERSHIP EXPERIENCE

Senior Scientist at ICPF, Head of the Group of Advanced Materials and Organic Synthesis, Member of the Management Board at the same Institute. PI or co-PI of 5 domestic from 2016. Supervisor of 3 PhD, 5 MSc and 2 post-doc students.

EDUCATION

2004 – 2009 Ph.D. in Organic Chemistry, University of Chemical and Technology in Prague - UCT
1999 – 2004 M.Sc. in Organic Chemistry, University of Chemical and Technology in Prague - UCT

PROFESIONAL EXPERIENCE (including INTERNATIONAL EXPERIENCE)

2022 - until now Member of the Management Board at ICPF
2018 - until now Head of the Group of Advanced Materials and Organic Synthesis at ICPF
2018 - until now CEO at CB21 Pharma s.r.o.
2016 - until now Managing Director at CBDepot s.r.o.
2010 - 2017 Head of the junior research group at ICPF
2012 - 2016 Secretary of the Scientific Board at ICPF

PUBLICATION ACTIVITIES

***h*-index 14 (acc. to SCOPUS)**

He has published 60 papers and 1 chapter in monographs, received more than 670 citations. He is author or co-author of several utility modes, proven technologies and patents. Two proven technologies are utilized in industry.

Selected 5 most important papers:

- 1 Synthesis of 2-Phospha[7]helicene, a Helicene with a Terminal Phosphinine Ring, Beránek T., Jakubec M., Sýkora J., Císařová I., Žádný J., Storch J., *Org. Lett.* 2022, 24, 4756–4761.
- 2 Enantioenriched Ruthenium-Tris-Bipyridine Complexes Bearing One Helical Bipyridine Ligand: Access to Fused Multihelicenic Systems and Chiroptical Redox Switches, Kos M., Rodriguez R., Storch J., Sykora J., Caytan E., Cordier M., Cisarova I., Crassous J. *Inorg. Chem.* 2021, 60, 11838-11851.

- 3 Helicene-SPP-Based Chiral Plasmonic Hybrid Structure: Toward Direct Enantiomers SERS Discrimination.; Kalachyova, Y.; Guselnikova, O.; Elashnikov, R.; Panov, I.; Žádný, J.; Círka, V.; Storch, J.; Sykora, J.; Zaruba, K.; Švorčík, V.; Lyutakov, O. ACS Appl. Mater. Interfaces 2019, 11, 1555.
- 4 Anodic Deposition of Enantiopure Hexahelicene Layers; Vacek, J., Hrbáč, J., Strašák, T. Círka, V., Sýkora, J., Fekete, L., Pokorný, J., Bulíř, J., Hromadová, M., Crassous, J., Storch, J. ChemElectroChem 2018, 5, 2080.
- 5 Photochemical oxidation specific to distorted aromatic amines providing ortho-diketones. Jakubec, M., Hansen-Troøyen, S., Císařová, I., Sýkora, J., Storch, J. Org. Lett. 2020, 22, 3905.

PATENTS

- 1 M. Jakubec, J. Žádný, J. Storch, P. Velíšek, J. Vokál: Method of separating enantiomers of substituted [n]helicenes. (Czech). Pat. No. PV 2016-330.
- 2 Petříčkovič R., Uchytíl P., Řezníčková J., Setničková K., Storch J.: Method for Separating Gas from a Gas Mixture on a Membrane Wall. (Czech) Pat. No. PV 2012-725.
- 3 Petrychkovych R, Uchytíl P., Řezníčková J., Setničková K., Storch J., Punčochář M., Šíma V.: Gas Separation Apparatus. (Czech) Pat. No. 305505/PV 2014-151.
- 4 Sobek J., Storch J., Broda M., Nehyba A., Kynařová E.: Apparatus for Preparing Crystal form of Polyethyleneterephthalate (Czech). Pat. No. 28836/PUV 2015-31494.
- 5 Storch J., Čermák Jan: Preparation of Racemic Substituted [6]Helicenes. (Czech) Pat. No. PV 2008-831/CZ 301384.

RESEARCH GRANTS

		International
2021 - 2025	Expression and portative detection of banned compounds using innovative techniques: flexible and chiral SERS, selective surface extraction, neural networks. Ministry of the Interior. (Co-PI, 13M CZK)	No
2020 - 2022	Preparation and Characterization of Hybrid Plasmonic Nanostructures with Strong Chiral Response. Czech Science Foundation. (PI, 5.0M CZK)	No
2017 - 2020	Development of In Vivo Diagnostic Kits Based on Histamine Derivatives of Steroids. Ministry of Industry and Trade. (Co-PI, 5.9M CZK)	No
2016 - 2019	New Stationary Phases for Chromatographic Separation of Chiral Compounds. Ministry of Industry and Trade. (Co-PI, 5.1M CZK)	No
2014 - 2017	Chiral Separation of Helicenes, Technology Agency of CR. (Co-PI, 7.7M CZK)	No

AWARDS AND FELLOWSHIPS

- 2019 Josef Hlávka award for the best students and graduates of Prague public universities

TEACHING ACTIVITIES AND SUPERVISION OF STUDENTS

Supervision of 3 PhD, 5 undergraduate and 2 post-doc students.