Curriculum Vitae

Personal Details

Name: Dániel Steinsits
Date of birth: 24/11/2000
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Current Position

2024 - present PhD student, Budapest University of Technology and Economics (BME), Faculty of Chemical Technology and Biotechnology, Department of Organic Chemistry and Technology, Innovative Pharmaceutical and Chirotechnological Research Group (Dr. Erika Bálint)

Previous Positions

2024 Visiting PhD student, Anyo Labs, Gothenburg, Sweden (3 months)
2022 - 2024 MSc student, Budapest University of Technology and Economics (BME), Faculty of Chemical Technology and Biotechnology, Department of Organic Chemistry and Technology, Innovative Pharmaceutical and Chirotechnological Research Group (Dr. Erika Bálint)
2023 Summer internship at EuroAPI Hungary Ltd., Chemical Pilot Plant
2021 - 2022 BSc student, Eötvös Loránd University (ELTE), Institute of Chemistry, Catalysis and Organic Synthesis Research Group (Prof. Dr. Zoltán Novák)

Education

2022 - 2024 MSc in Pharmaceutical Engineering, Specialization in Synthetic Chemistry, Budapest University of Technology and Economics (BME), graduated with honours

2019 - 2022 BSc in Chemistry, Specialization in Organic Chemistry, Eötvös Loránd University, Institute of Chemistry, graduated with honours

2015 - 2019 Fazekas Mihály Primary and Secondary Grammar School of Budapest, specialized in Chemistry and Biology

Research Experience

- Total Synthesis of Potentially Anticancer Compounds (experience: design of synthetic routes, protection group orthogonality, carrying out various reaction types such as halogenations, N- and O-alkylations, reductions and oxidations, lithiations, different ring-closing and C-C coupling reactions).
- In silico drug design of small molecules targeting c-FLIP (experience: use of software packages such as Schrödinger Maestro, VMD, PyMOL, fpocket and Anyo Labs' i-TripleD; experience in protein and ligand preparation, ligand docking, molecular dynamics simulations).
- Synthesis of 3,3-Disubstituted Oxindoles and Spiroxanthenes via Multicomponent reaction with green chemical technologies (experience: MW-assisted reactions, multicomponent reactions, green solvents and solvent-free reactions).
- Synthesis of Aryl-fluoralkyl Ethers via Iodonium salts (experience: cryostated reactions, reactions under inert atmospheric conditions, handling of dangerous materials such as Hydrogen peroxide, Trifluoroacetic acid and Triflic acid).
- Cyclodextrin Chemistry: Synthetic modification of cyclodextrins (experience: handling of dangerous materials such as Sodium azide), inclusion complexations and conjugation of organic compounds (spiroheterocycles) with β-cyclodextrins, phase solubility studies.
- Flow Reactions: flow hydrogenation and condensation using H-Cube Pro system.
- Analytical measurements and their evaluations: 1D and 2D Nuclear Magnetic Resonance (NMR) Spectroscopy, High-Performance Liquid Chromatography (HPLC), Mass Spectrometry (MS), Gas Chromatography (GC), Flash column chromatography.

Fellowships and Grants

- BME VBK "EUROAPI" PhD student scholarship, József Varga Foundation and EuroAPI Hungary, 2025 -- present.
- Jury Special Award of National Students' Scientific Research Conference, Debrecen University of Technology and Economics, April 2025.
- MKE MSc Thesis Award of Excellence, MKE (Hungarian Chemical Society), 2024.
- BME VBK "EUROAPI" PhD student scholarship, József Varga Foundation and EuroAPI Hungary, 2024 -- 2025.
- Scholarship of the Faculty of Chemical Technology and Biotechnology, 2024.

- 1st place Award of Students' Scientific Research Conference, Budapest University of Technology and Economics, 2023.

Most Important Publications Over the Last Five Years

1. Rávai, B.; Orosz, J. M.; Steinsits, D.; Bálint, E. A BME Innovatív Gyógyszeripari és Kirotechnológiai Kutatócsoport áramlásos kémia területén végzett kutatásai. *MKF*, 2025, 131, 200-209.
2. Csenki, J. T.; Englert, D. F.; Steinsits, D.; Fehér, P. P.; Stirling, A.; Novák, Z. Acidity Controlled Formal Nucleophilic Substitution of Hydrofluoroolefin-Based Iodonium Salt with O-nucleophiles: Synthetic Application and Mechanistic Study. *Chem. Eur. J.*, 2025, 31, e02254. DOI: 10.1002/chem.-202502254 (Q1, IF 3.7).
3. Steinsits, D.; Rávai, B.; Kelemen, Z.; Hackler, L.; Vernyik, V.; Puskás, L. G.; Bálint, E. 3,3-Bis(hydroxyaryl)oxindoles and Spirooxindoles Bearing a Xanthene Moiety: Synthesis, Mechanism, and Biological Activity. *J. Org. Chem.*, 2025, 90, 6454-6467. DOI: 10.1021/acs.joc.5c00270 (Q2, IF 3.6); Independent citations: 2.