



Bogna Rudolf

ASSOCIATE PROFESSOR · HEAD OF THE DEPARTMENT OF ORGANIC CHEMISTRY · VICE-DEAN – UNIVERSITY OF LODZ

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Currently held positions

Department of Organic Chemistry, Faculty of Chemistry

ASSOCIATE PROFESSOR

University of Lodz

Department of Organic Chemistry, Faculty of Chemistry

HEAD OF THE DEPARTMENT

University of Lodz

Faculty of Chemistry

VICE-DEAN

University of Lodz

Scientific profile and collaborations

My scientific research focusses on **bioorganometallic chemistry**. My research work is related to the design and **synthesis of organometallic compounds (Fe, Ru, Mo, and W)** and their application in biochemistry. Organometallic complexes with which I work are designed to act as anticancer drugs, antioxidants, enzyme inhibitors, and CO-releasing molecules (CORMs)). In my research, I also developed new methods for **labelling biomolecules** with organometallic compounds, using biorthogonal methods, cycloadditions, stapling, and re-bridging, to follow and study biological processes in cells. I have also experience in the functionalization of nanoparticles and dendrimers with metallocarbonyl compounds. Another field of interest is the design of new imides, their physicochemical properties, and applications. From many years I have cooperated with researchers from Sorbonne-Universite, Chimie-ParisTech PSL (before Ecole Nationale de Chimie de Paris), and Ecole Nationale de Chimie de Montpellier in France.

Selected publications

- 2021 *A Useful Synthetic Route to N-Nonsubstituted Succinimides via Light-Induced Degradation of Metallocarbonyl Complexes* [\[link\]](#)
- 2023 *Piano-stool ruthenium(II) complexes with maleimide and phosphine or phosphite ligands: synthesis and activity against normal and cancer cells* [\[link\]](#)
- 2024 *Amine-catalyzed substitution in CpFe(CO)2I by phosphine and bisphosphine ligands* [\[link\]](#)

Research grants

Principal Investigator: 2 grants: NCN, POLONIUM

International research stays

France, CNRS, ICSN Gif-sur-Yvette 1 year, 1999-2000
France, Ecole Nationale Supérieure de Chimie de Paris 1 month, 2002
France, Ecole Nationale Supérieure de Chimie de Paris 8 months, 2003, CNRS (poste rouge)
France, Ecole Nationale Supérieure de Chimie de Paris 3 months, 2005, EMBO
France, Ecole Nationale Supérieure de Chimie de Paris 3 months, 2006, EMBO
France, POLONIUM programme in cooperation with Ecole Nationale Supérieure de Chimie de Paris 2008-2009
France, Ecole Nationale Supérieure de Chimie de Paris 3 months, 2010, CNRS (poste rouge)
France, Ecole Nationale Supérieure de Chimie de Paris 1 month, 2014, SSHN BGF