





ORGANOMETALLIC SYNTHESIS LABORATORY



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### TEAM LEADER Prof. Karol Grela, PhD

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Research Group Home: www.karolgrela.eu International group of 20+ people Postdocs, PhD & MSc students



In order to facilitate the cooperation with CNBCh UW, we have created the Operators Corps:

- high class specialists
- solving commercial issues
- performing both routine analysis and specialized research tailored to the needs of service recipients

More information:

www.cnbch.uw.edu.pl/#korpusoperatorów





"I have always dreamed that my research would be practical. To leave a biorefinery behind, or at least improve a production process of some medicine..."

prof. Karol Grela

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LEADER: Prof. Karol Grela, PhD

H-index: 42, 170+ papers, 10+ patents

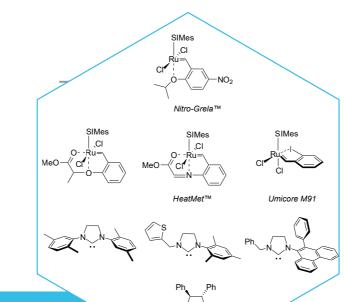
- Alexander von Humboldt Fellowship
- Foundation for Polish Science Prize
- Société Chimique de France Prize
- Prime Minister of Polish Government Prize
- Minister of Science and Higher Education Prize
- Klemm Lectureship of the German Chemical Society
- Member of the Editorial Board of the Chemistry—A European Journal
- Member of the Advisory Board of the European Journal of Organic Chemistry
- Member of the Scientific Advisory Board of the Polpharma SA Pharmaceutical Company
- Editor of the Beilstein Journal of Organic Chemistry



## RESEARCH: Organometallic chemistry applied to organic synthesis

Research topics include design and synthesis of transition metal complexes and their use in catalytic organic reactions, particularly in synthesis of biologically-active compounds

- NHC ligands synthesis & utilisation
- Metal catalysed reactions
- Catalyst immobilisation and recycling
- Green & sustainable chemistry
- Natural & bioactive compounds
- Medicinal chemistry



Selected ruthenium olefin metathesis catalysts, NHC ligands and a chiral Cu-NHC catalyst, developed in Grela's group



# Selected scientific aparature:

- NMR 400 MHz spectrometer with an autosampler
- Karl Fischer titrator
- Glove box with an integrated solvent drying kit
- Diffusion pump
- Autoclave reactors
- Continuous flow reactors
- Microwave reactor with a camera and extension enabling reactions with gaseous reagents
- GC, GC/MS, HPLC, flash chromatography system





- over 500 research devices
- The University of Warsaw Biological and Chemical
  Research Centre has accreditation granted in 2014 by the
  Polish Centre for Accreditation. Accredited laboratories
  provide services in the field of chemical research: water,
  soil, food and chemicals. Experienced staff and adequate
  facilities hardware ensure efficient execution of orders
  and validity of results. Laboratories implement
  quality system and technically competent
  according to ISO/EIC 17025 standard.

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