

Curriculum Vitae

Lukasz Jan Weseliński



Home address: 540 Lake Avenue Apt 5
Hancock MI 49930-1938
Date of birth: 22 October 1981
Nationality: Polish
Marital status: Single
Mobile phone: +1 906-275-9110
E-mail: lukasz.weselinski@gmail.com

EDUCATION

- 2010** **Ph.D.** Department of Chemistry, University of Warsaw, Poland. Thesis Title: 'The synthesis of hybrid compounds possessing chirality center and axial chirality and their application as organocatalysts'
Academic Supervisor: Professor Janusz Jurczak
- 2005** **M.Sc.** Department of Chemistry, University of Warsaw, Poland. Thesis Title: 'The synthesis of optically active α -aminoacyl derivatives of 1,1'-binaphthyl diamine'
Academic Supervisor: Professor Janusz Jurczak

RESEARCH EXPERIENCE

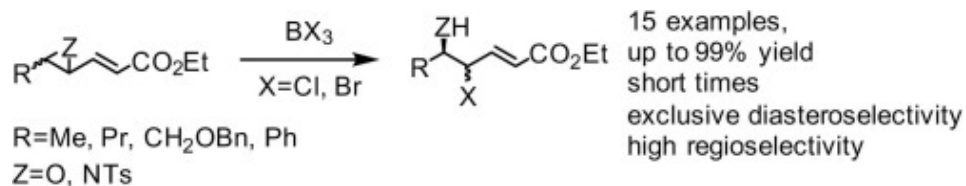
- 2015 – to-day** **Postdoctoral Research Fellow**, Department of Chemistry, Michigan Technological University, Houghton, United States, Principal Investigator: Prof. Marina Tanasova
- Development of synthetic methodologies for the construction of unnatural nucleotides
- 2012 - 2015** **PostDoctoral Fellow**, Functional Materials Design, Discovery and Development Research Group (FMD³), Advanced Membranes and Porous Materials Center, King Abdullah University of Science and Technology (KAUST), Thuwal, Kingdom of Saudi Arabia, Principal Investigator: Prof. Mohamed Eddaoudi
- Synthesis of functionalized ligands for Metal-Organic Frameworks (MOFs)
 - Synthesis of functionalized Porous Organic Polymers (POPs)
- 2010 – 2012** **Adjunct**, Department of Chemistry, University of Warsaw, Poland
- Enantioselective organocatalytic intramolecular Diels-Alder reaction under high pressure conditions (up to 10 kbar)
 - Enantioselective organocatalytic formation of quaternary stereogenic centers via 1,3-dipolar cycloaddition of functionalized nitrones and Friedel-Crafts reaction of indoles
- 2005 – 2010** **Ph.D. student**, Department of Chemistry, University of Warsaw, Poland
- The development of new organocatalysts for 1,3-dipolar cycloaddition of functionalized nitrones
 - The synthesis of hybrid 1,1'-binaphthyl-2,2'-diamine (BINAM) and α -amino acids derivatives
- 2013 - to-day** **Reviewer** for Royal Society of Chemistry.
- 2005 – 2011** **Database editor** (part-time job)
- Creating records for Beilstein (Reaxys) database, excerpting data from chemical journals

SKILLS

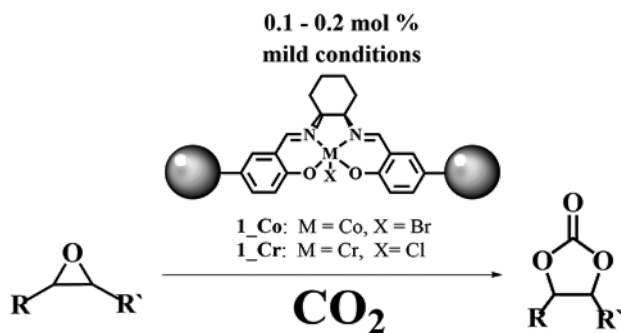
- **Research techniques:** multi-step syntheses including optically pure compounds, large and small scale syntheses, work under strictly anhydrous and oxygen-free conditions (Schlenk line, glovebox), work with hazardous chemicals, synthesis under ultra high pressure conditions (up to 10 kbar) and in microwave reactor, standard purification techniques, chromatographic techniques (including HPLC and GC), operation of NMR spectrometers (Varian, Bruker), IR, LR-MS, Elemental Analysis, PXRD, TGA.
- **Computer:** Windows, MacOS, MS Office, chemical and literature databases (Reaxys, SciFinder, SDBS, Scopus, Web of Science, Google Scholar), visualization of crystal structures (Mercury, Ortep), software for processing analytical data and drawing of chemical structures.
- **Languages:** English – fluent (Cambridge Advance English test (CAE)); Polish – native; **Driving license**

PUBLICATIONS (15 publications, 254 citations *via* Scopus as of 10/2016; *h*-index 9)

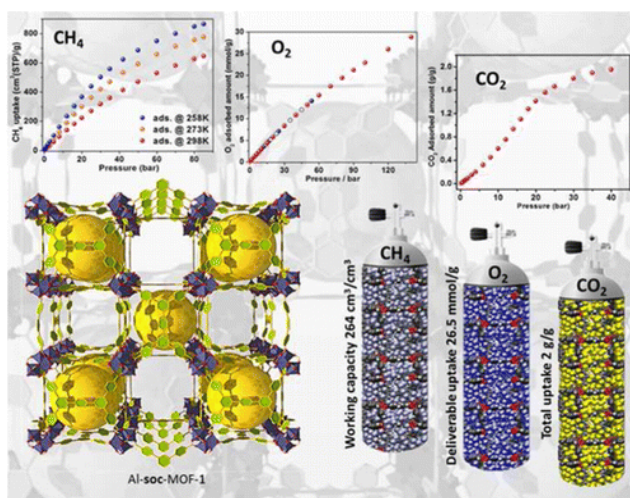
15) Weseliński, Ł. J.; Grillo, M. J.; Tanasova, M. 'The practical stereocontrolled synthesis of vicinal halohydrins and haloamines from vinyl epoxides and vinyl aziridines', *Tetrahedron Lett.* **2016**, *57*, 4477-4479.



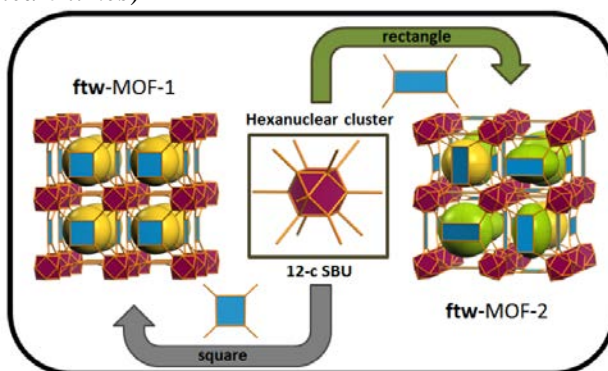
14) Alkordi, M. H. #; Weseliński, Ł. J. #; D'Elia, V.; Barman, S.; Cadiou, A.; Hedhili, M. N.; Cairns, A. J.; AbdulHalim, R. G.; Basset, J.-M.; Eddaoudi, M. 'CO₂ conversion: the potential of porous-organic polymers (POPs) for catalytic CO₂-epoxide insertion' *J. Mater. Chem. A* **2016**, *4*, 7453-7460. (# - equal contribution). (Cited 2 times)



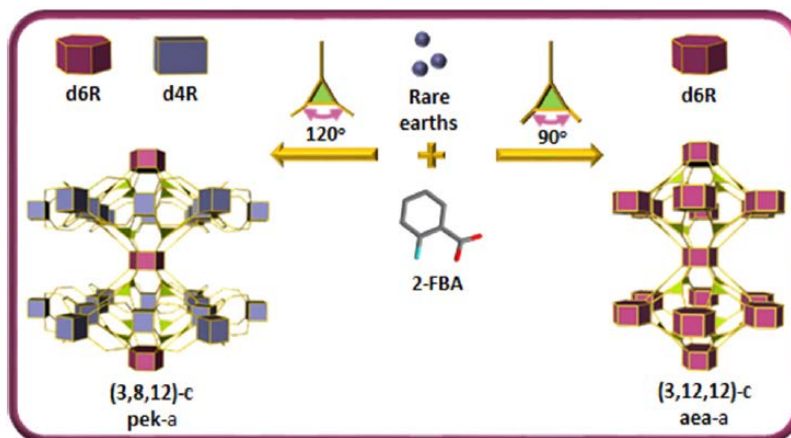
13) Alezi, D.; Belmabkhout, Y.; Suyetin, M.; Bhatt, P. M.; Weseliński, Ł. J.; Solovyeva, V.; Adil, K.; Spanopoulos, I.; Trikalitis, P. N.; Emwas, A.-H.; Eddaoudi, M. 'MOF crystal chemistry paving the way to gas storage needs: aluminum-based soc-MOF for CH₄, O₂, and CO₂ storage' *J. Am. Chem. Soc.* **2015**, *137*, 13308-13318. (Cited 26 times)



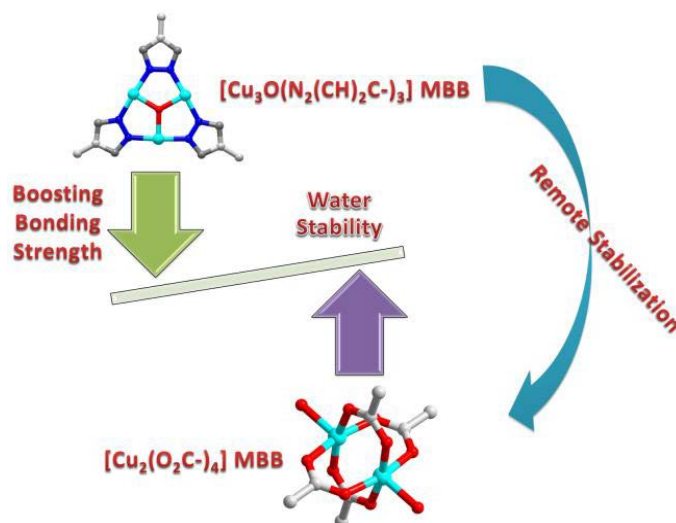
12) Luebke, R.; Belmabkhout, Y.; Weseliński, Ł. J.; Cairns, A. J.; Alkordi, M.; Norton, G.; Wojtas, Ł.; Adil, K.; Eddaoudi, M. 'Versatile rare earth hexanuclear clusters for the design and synthesis of highly-connected ftw-MOFs' *Chem. Sci.* **2015**, *6*, 4095-4102. (Cited 6 times)



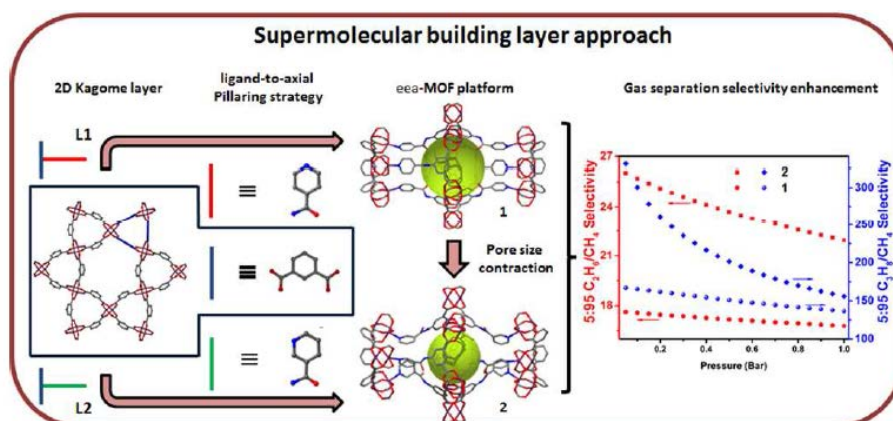
11) Alezi, D.; Peedikakkal, A. M. P.; Weseliński, Ł. J.; Guillerm, V.; Belmabkhout, Y.; Cairns, A. J.; Chen, Z.; Wojtas, Ł.; Eddaoudi, M. 'Quest for highly-connected MOF platforms: rare-earth polynuclear clusters versatility meets net topology needs' *J. Am. Chem. Soc.* **2015**, *137*, 5421-5430. (Cited 12 times)



10) Gao, W.-Y.; Cai, R.; Pham, T.; Forrest, K. A.; Hogan, A.; Nugent, P.; Williams, K.; Wojtas, L.; Luebke, R.; Weseliński, Ł. J.; Zaworotko, M. J.; Space, B.; Chen, Y.-S.; Eddaoudi, M.; Shi, X.; Ma, S. 'Remote stabilization of copper paddlewheel based molecular building blocks in metal-organic frameworks' *Chem. Mater.* **2015**, *27*, 2144-2151. (Cited 12 times)

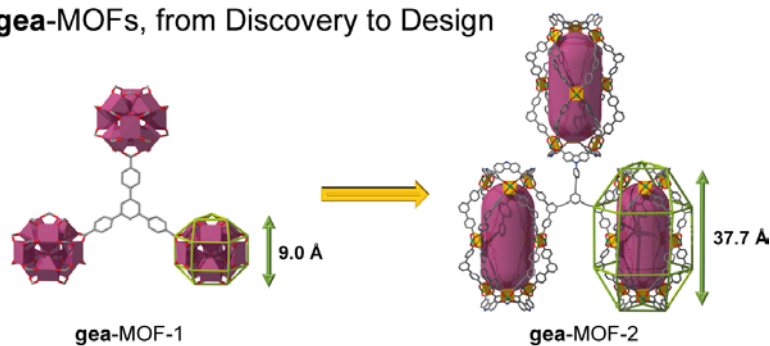


9) Chen, Z.; Adil, K.; Weseliński, Ł. J.; Belmabkhout, Y.; Eddaoudi, M. 'Supramolecular building layer approach for gas separation and storage applications: the eea and rtl MOF platforms for CO_2 capture and hydrocarbons separation' *J. Mater. Chem. A* **2015**, *3*, 6276-6281. (Cited 12 times)

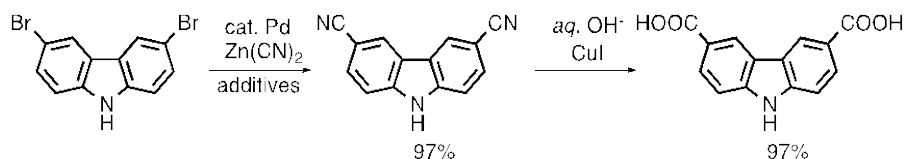


8) Guillerm, V.; Weseliński, Ł. J.; Belmabkhout, Y.; Cairns, A.; D'Elia, V.; Adil, K.; Wojtas, L.; Eddaoudi, M. 'Discovery and introduction of a (3,18)-connected net as an ideal blueprint for the design of MOFs' *Nature Chem.* **2014**, *6*, 673-680. (Highlighted as the Front cover) (Cited 67 times)

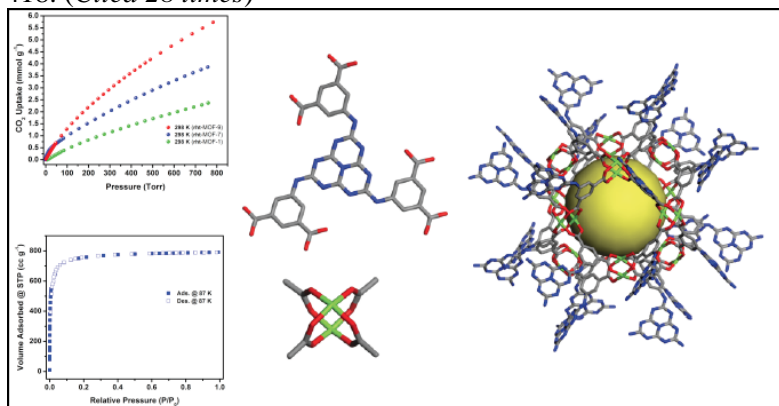
gea-MOFs, from Discovery to Design



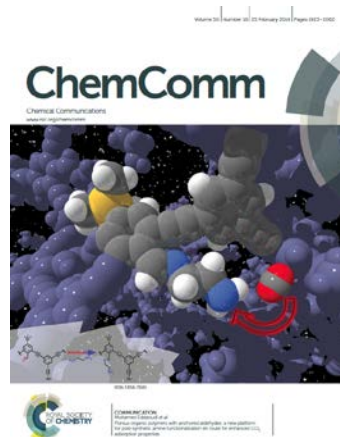
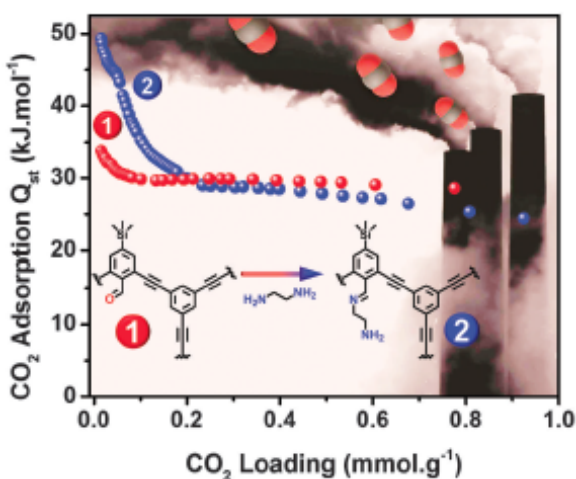
7) Weseliński, Ł. J.; Luebke, R.; Eddaoudi, M. 'A convenient preparation of 9H-carbazole-3,6-dicarbonitrile and 9H-carbazole-3,6-dicarboxylic acid' *Synthesis* **2014**, *46*, 596-599. (Cited 2 times)



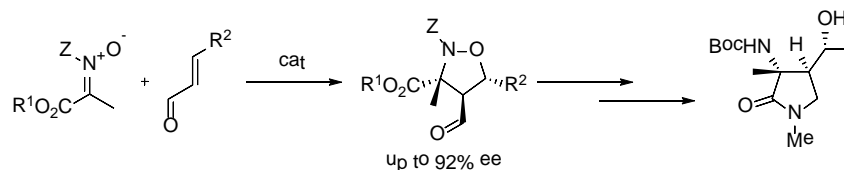
6) Luebke, R.; Weseliński, Ł. J.; Belmabkhout, Y.; Chen, Z.; Wojtas, L.; Eddaoudi, M. 'A microporous heptazine functionalized (3,24)-connected rht metal-organic framework: Synthesis, structure and gas sorption analysis' *Cryst. Growth Des.* **2014**, *14*, 414-418. (Cited 28 times)



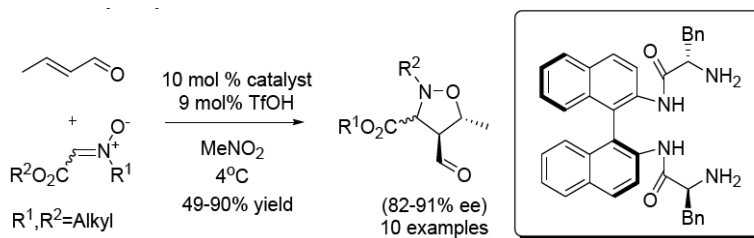
5) Guillerm, V.; Weseliński, Ł. J.; Alkordi, M. H.; Mohideen, M. I. H.; Belmabkhout, Y.; Cairns, A. J.; Eddaoudi, M. 'Porous organic polymers with anchored aldehydes: A new platform for post-synthetic amine functionalization en route for enhanced CO₂ adsorption properties' *Chem. Commun.* **2014**, *50*, 1937-1940. (Front cover) (Cited 40 times)



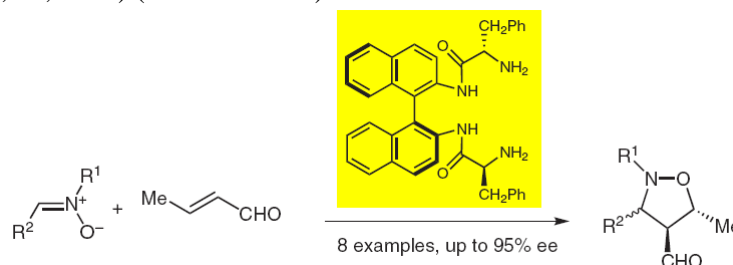
4) Weseliński, L.; Kalinowska, E.; Jurczak, J. 'The asymmetric organocatalytic 1,3-dipolar cycloaddition of alkyl pyruvate-derived nitrones and α,β -unsaturated aldehydes', *Tetrahedron: Asymmetry* **2012**, 23, 264-270. (Cited 6 times)



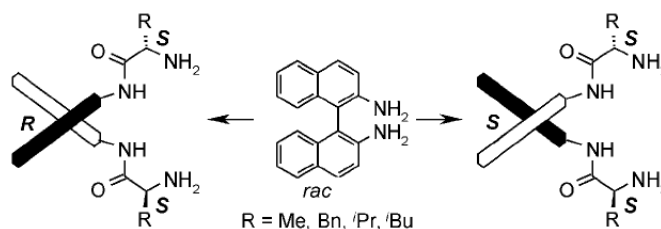
3) Weseliński, L.; Słyk, E.; Jurczak, J. 'The highly enantioselective 1,3-dipolar cycloaddition of alkyl glyoxylate-derived nitrones to *E*-crotonaldehyde catalyzed by hybrid diamines' *Tetrahedron Lett.* **2011**, 52, 381-384. (Cited 20 times)



2) Weseliński, L.; Stępnia, P.; Jurczak, J. 'Hybrid diamines derived from 1,1'-binaphthyl-2,2'-diamine and α -amino acids as organocatalysts for 1,3-dipolar cycloaddition of aromatic nitrones to (*E*)-crotonaldehyde' *Synlett* **2009**, 2261-2264. (Highlighted in *Synfacts* **2009**, 10, 1158) (Cited 17 times)



1) Kowalczyk, B.; Tarnowska, A.; Weseliński, L.; Jurczak, J. 'The synthesis of homochiral hybrid diamines derived from 1,1'-binaphthyl-2,2'-diamine and α -amino acids' *Synlett* **2005**, 2373-2375. (Cited 4 times)



PATENTS

2) Eddaoudi, M.; Xue, D.-X.; Luebke, R.; Guiller, V.; Adil, K.; Peedikakkal, A. M. P.; Weseliński, L. J.; 'Synthesis of lanthanide metal organic frameworks', WO2015183813 A2, **2015**, December 3.

1) Eddaoudi, M.; Guiller, V.; Weselinski, L.; Alkordi, M.; Mohideen, M. I. H.; Belmabkhout, Y.; 'Amine functionalized porous network', WO2015077444 A1, **2015**, May 28.

CONFERENCES

- 02.2015** 'Recent Developments in Advanced Membranes and Porous Materials for Energy, Environment and Water Applications', Thuwal, Kingdom of Saudi Arabia, poster
- 07.2011** '17th European Symposium on Organic Chemistry', Chersonissos, Crete, Greece, poster
- 04.2011** '9th National Symposium on Organic Chemistry', Warsaw, Poland, oral presentation
- 10.2010** 'Progress in the synthesis of non-racemic compounds', Kudowa-Zdrój, Poland, oral presentation

- 04.2009** 'Debrief on the Polish Ministry of Science and Higher Education grant PBZ-KBN-12/T9/2004', Ciechocinek, Poland, oral presentation
- 04.2009** 'BaltChem 2009', Warsaw, Poland, poster
- 09.2008** '2nd EuCheMS Chemistry Congress', Turin, Italy, poster
- 06.2007** '8th Tetrahedron Symposium', Berlin, Germany, poster
- 09.2006** 'Sugars as renewable materials for the synthesis of compounds of biological interest' Klekotki, Poland, oral presentation
- 09.2005** 'XLVIII Meeting of PTChem and SITPChem', Poznan, Poland, poster

TEACHING EXPERIENCE

- 2016** "Spectroscopy of Organic Chemistry" – lecture for undergraduate and graduate students at Department of Chemistry, Michigan Technological University
- 2010 – 2012** Leading the organic chemistry laboratories for undergraduate students at Department of Chemistry, University of Warsaw
- 2008 – 2012** Supervision of master's students, and advisory on M. Sc. theses preparation
- 2006 – 2007** Supervision of undergraduate students (second to fourth year) during organic chemistry laboratories

SCIENTIFIC AND PROFESSIONAL MEMBERSHIPS

American Chemical Society (ACS)

REFERENCES

- **Professor Marina Tanasova**
Department of Chemistry, Michigan Technological University
1400 Townsend Drive, Houghton, MI 49931, USA
Phone +1 906 487 1163; E-mail: mtanasov@mtu.edu
- **Professor Mohamed Eddaoudi**
Functional Materials Design, Discovery and Development Research Group (FMD³)
Advanced Membranes and Porous Materials Center, Division of Physical Sciences and Engineering
King Abdullah University of Science and Technology (KAUST)
Thuwal 23955-6900, Kingdom of Saudi Arabia
Phone +966 02 8082778; E-mail: mohamed.eddaoudi@kaust.edu.sa
- **Professor Janusz Jurczak**
Institute of Organic Chemistry, Polish Academy of Sciences
Kasprzaka 44/52, 01-224 Warsaw, Poland
Phone +48 22 6320578; E-mail: janusz.jurczak@icho.edu.pl
- **Professor Jerzy Wicha**
Institute of Organic Chemistry, Polish Academy of Sciences
Kasprzaka 44/52, 01-224 Warsaw, Poland
Phone +48 22 6328117; E-mail: jerzy.wicha@icho.edu.pl