



CURRICULUM VITAE

Maciej Giedyk

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EDUCATION

- 09.2012 – 06.2016 **Doctorate (with distinction)** - Institute of Organic Chemistry, Polish Academy of Sciences
Supervisor: prof. Dorota Gryko
Subject: Synthesis and catalytic activity of new vitamin B₁₂ derivatives
- 02.2011 – 06.2012 **Master (with distinction)** - Warsaw University of Technology; Chemistry
Supervisor: prof. Daniel Gryko; individual course of studies
Subject: New derivatives of cobinamide – synthesis and functionalization
- 10.2007 – 01.2011 **Bachelor** (grade: very good) - Warsaw University of Technology; Chemistry
Supervisor: dr Zbigniew Ochal; individual course of studies
Subject: 2-Phenoxypropionic acid and derivatives as substrates for obtaining biologically active compounds.

WORK EXPERIENCE

- from 07.2019 **Assistant Professor** – Institute of Organic Chemistry, Polish Academy of Sciences, Poland
- 01.2018 -06.2019 **Post-Doc** – The group of prof. Burkhard König
Regensburg University, Germany
- 06.2016 – 12.2017 **Post-Doc** – The group of prof. Dorota Gryko
Institute of Organic Chemistry, Polish Academy of Sciences, Poland
- 06.2015 – 09.2015 **Visiting Researcher** – The group of prof. Yoshio Hisaeda
Kyushu University, Japan
- 07.2012 – 06.2016 **First Stage Researcher** – The group of prof. Dorota Gryko
Institute of Organic Chemistry, Polish Academy of Sciences, Poland

GRANTS AND FELLOWSHIPS

- from 08.2019 SONATA grant: **project manager** (ranked 1st among all the grant applications)
“Photocatalysis at interfaces: self-assembled microheterogenous solutions as reaction media for visible-light-induced transformations”
- 01.2018 – 06.2019 MOBILITY PLUS stipend: **postdoctoral researcher, project manager**
“Design of photoredox catalysts with strong reducing properties and their application in visible-light-induced reactions”
- 09.2016 – 12.2017 SYMPHONY grant: **postdoctoral researcher**
“Vitamin B₁₂ as a delivery vehicle for antibacterial oligonucleotide analogues”
- 07.2016 – 07.2017 START stipend granted by the Foundation for Polish Science
- 04.2016 SPP Student Assistance Grant for "International Conference on Porphyrins and Phthalocyanines" (ICPP-9) in Nanjing, China
- 04.2015 Conference Grant for "International Summer School on Organic Synthesis (ISOS-2015)" in Gargnano, Italy
- 10.2014 – 09.2015 ETIUDA stipend: **project manager**
“Synthesis and catalytic properties of new vitamin B₁₂ derivatives”
- 02.2014 SPP Student Assistance Grant for "International Conference on Porphyrins and Phthalocyanines" (ICPP-8) in Istanbul, Turkey
- 05.2012 – 05.2014 DIAMOND grant: **project manager**

“Biocatalytic transformations of hydrophobic vitamin B₁₂ derivatives”

- 07.2011 – 06.2012 TEAM grant: undergraduate student researcher
“Novel approach towards NO-free activators of sGC enzyme for medical treatment of heart diseases”
- 10.2008 – 06.2012 Individual scholarship for academic performance

PUBLICATIONS

- 1) **M. Giedyk**, M. Cybularczyk-Cecotka, J. Szczepanik, *Nature Research Communities* “‘Br-exit’ in photocatalysis? Chlorides gain in popularity”; blog post
- 2) M. Cybularczyk-Cecotka, J. Szczepanik, **M. Giedyk*** *Nat. Catal.* 2020, 3, 872.
“Photocatalytic strategies for the activation of organic chlorides”
- 3) M. S. Santos, M. Cybularczyk-Cecotka, B. König, **M. Giedyk*** *Chem. Eur. J.* 2020, 26, 15323.
“Minisci C-H alkylation of heteroarenes enabled by dual photoredox/bromide catalysis in micellar solutions”
- 4) **M. Giedyk**, B. König *q&more* “*Micelles as a reaction environment*”; article for general public
- 5) D. Petzold[†], **M. Giedyk**[†], A. Chatterjee[†], B. König* *Eur. J. Org. Chem.* 2020, 15, 1193.
„A Retrosynthetic Approach for Photocatalysis”; [†]equal contribution
- 6) **M. Giedyk**, S. Weiß *Nature Research Communities* “*Don’t be APSET*”; blog post
- 7) **M. Giedyk**, R. Narobe, S. Weiß, D. Touraud, W. Kunz*, B. König* *Nat. Catal.* 2020, 3, 40-47.
“Photocatalytic activation of alkyl chlorides for radical coupling in microheterogeneous solutions”
- 8) **M. Giedyk**, A. Jackowska, M. Równicki, M. Kolanowska, J. Trylska*, D. Gryko* *Chem. Commun.* 2019, 55, 763
“Vitamin B₁₂ transports modified RNA into *E. coli* and *S. Typhimurium* cells”
featured on **the cover**
- 9) A. Jackowska, M. Chromiński, **M. Giedyk***, D. Gryko* *Org. Biomol. Chem.* 2018, 16, 936
“5'-Vitamin B₁₂ derivatives suitable for bioconjugation via the amide bond”
- 10) K. ó Proinsias*, A. Jackowska, K. Radzewicz, **M. Giedyk**, D. Gryko* *Org. Lett.* 2018, 20, 296
“Vitamin B₁₂-catalyzed atom transfer radical addition”
- 11) **M. Giedyk**,[†] J. Turkowska,[†] S. Lepak, M. Marculewicz, K. ó Proinsias, D. Gryko* *Org. Lett.* 2017, 19, 2670
“Photoinduced Vitamin B₁₂-Catalysis for Deprotection of (Allyloxy)arenes”; [†]equal contribution
- 12) **M. Giedyk**, H. Shimakoshi*, K. Golszewska, D. Gryko*, Y. Hisaeda* *Dalton Trans.* 2016, 45, 8340
“Electrochemistry and Catalytic Properties of Amphiphilic Vitamin B₁₂ Derivatives in Nonaqueous Media”
featured on **the cover**
- 13) **M. Giedyk**, K. Golszewska, K. ó Proinsias, D. Gryko* *Chem. Commun.* 2016, 52, 1389
“Cobalt(I)-catalysed CH-alkylation of terminal olefins, and beyond”
- 14) **M. Giedyk**, K. Golszewska, D. Gryko* *Chem. Soc. Rev.* 2015, 44, 3391
“Vitamin B₁₂-catalyzed reactions”
- 15) **M. Giedyk**, K. ó Proinsias, S. Kurcoń, I. Sharina, E. Martin*, D. Gryko* *ChemMedChem.* 2014, 9, 2344
“Small Alterations in Cobinamide Structure Considerably Influence sGC Activation”
- 16) **M. Giedyk**, S. N. Fedosov, D. Gryko* *Chem. Commun.* 2014, 50, 4674
“An amphiphilic, catalytically active, vitamin B₁₂ derivative” featured on **the cover**
- 17) M. Chromiński, **M. Giedyk**, D. Gryko* *Arkivoc* 2014, 4, 135
“Organocatalytic γ -oxidation of α,β -unsaturated aldehydes”
- 18) K. ó Proinsias, **M. Giedyk**, Ł. Banach, D. Rutkowska-Zbik, D. Gryko* *Asian J. Org. Chem.* 2013, 2, 504
“Selectively Modified Cobyrinic Acid Derivatives” featured on **the cover**
- 19) K. ó Proinsias, **M. Giedyk**, D. Gryko* *Chem. Soc. Rev.* 2013, 42, 6605
“Vitamin B₁₂: chemical modifications”
- 20) K. ó Proinsias, **M. Giedyk**, I. Sharina, E. Martin*, D. Gryko* *ACS Med. Chem. Lett.* 2012, 3, 476
“Synthesis of New Hydrophilic and Hydrophobic Cobinamides as NO-Independent sGC Activators”
- 21) K. ó Proinsias, **M. Giedyk**, R. Loska, M. Chromiński, D. Gryko* *J. Org. Chem.* 2011, 76, 6806
“Selective Modifications of Hydrophobic Vitamin B₁₂ Derivatives at *c*- and *d*- Positions”

AWARDS

- Young Investigators Award, Institute of Organic Chemistry, Polish Academy of Sciences (12.2020)
- Award for Outstanding Scientific Achievements in 2019 founded by the Director of the Institute of Organic Chemistry, Polish Academy of Sciences (01.2020)
- 3rd-place award for the best oral presentation at “YoungChem2017 International Congress of Young Chemists”; Lublin, Poland (10.2017)
- W. Świątosławski Award founded by Warsaw Division of Polish Chemical Society; award for outstanding achievements in science (05.2017)
- Award for best oral presentation at "International Summer School on Organic Synthesis (ISOS-2015)"; Gargnano, Italy (06.2015)
- J. Janikowa Award founded by Polish Chemical Society; award for best Master Thesis 2012 in the field of chemistry (09.2013)
- 2nd-place award for the best poster presentation at “ChemoFor” symposium; Warsaw, Poland (05.2012)

OTHER ACHIEVEMENTS

- Supervising and mentoring younger members of the group: **1** post-doc, **2** PhD students, **6** master students (**4** of which successfully carried out and in **2** cases already defended their PhD in chemistry)
- Selected to represent Poland at the Young Investigator Workshop 2020 of the EuChemS Division of Organic Chemistry (YIW2020)
- Invitations to write 2 book chapters: *RCS, Wiley*
- Reviewer for: *Nature Catalysis, Nature Communications, European Journal of Organic Chemistry*

CONFERENCE ACTIVITY AND LECTURES

- Central European Conference on Photochemistry, Bad Hofgastein, Austria (02.2020):
“Self-assembled microheterogenous solutions as reaction media for photocatalytic activation of organohalides”; poster presentation
- Institute of Organic Chemistry, Polish Academy of Sciences, Warsaw, Poland (01.2020):
“Photocatalytic activation of alkyl chlorides: a story from post-doc”; **seminar lecture**
- ERC Scientific Council Meeting, Warsaw, Poland (10.2019):
“Self-assembled microheterogenous solutions as reaction media for photocatalytic activation of organohalides”; poster presentation
- 5th Symposium on Asymmetric Synthesis, Warsaw, Poland (09.2019):
chairing the 55th IOC PAS Anniversary session
- 10th Münster Symposium on Cooperative Effects in Chemistry, Münster, Germany (05.2019):
“Photocatalytic activation of alkyl chlorides by assembly-promoted single electron transfer in microheterogenous solutions”; poster presentation
- Regensburg University, Germany (11.2018):
“Photocatalytic activation of alkyl chlorides in microheterogenous solutions”; **seminar lecture**
- Frontiers in Chemistry 2018, Yerevan, Armenia (10.2018):
“Photocatalytic reduction of redox-demanding compounds in microheterogenous solutions”; **contributed lecture**
- 26. Lecture Conference on Photochemistry; Garching/Munich, Germany (09.2018):
“Photocatalytic reduction of redox-demanding compounds in microheterogenous solutions”; poster presentation
- YoungChem2017 International Congress of Young Chemists; Lublin, Poland (10.2017):
“Vitamin B₁₂ catalysis – a green alternative for organic synthesis”; **oral presentation; 3rd-place award**
- ETH Zürich, Switzerland (10.2016):
“Synthesis and catalytic activity of new vitamin B₁₂ derivatives”; **seminar lecture**
- 9th International Conference of Porphyrins and Phthalocyanines (ICPP-9); Nanjing, China (07.2016):
“Vitamin B₁₂ – a unique cobalt catalyst”; poster presentation
- International Summer School on Organic Synthesis (ISOS-2015); Gargnano, Italy (06.2015):
“New vitamin B₁₂ derivatives – synthesis and their catalytic activity”; **oral presentation; 1st-place award**
- Interdisciplinary FNP Conference; Warsaw, Poland (04.2015):
“Vitamin B₁₂ – beyond the known”; poster presentation

- Chemia Organiczna Wczoraj i Dziś; Warsaw, Poland (11.2014):
“Synteza i Właściwości Katalityczne Nowych Pochodnych Witaminy B₁₂”; **oral presentation**
- 8th International Conference of Porphyrins and Phthalocyanines (ICPP-8); Istanbul, Turkey (06.2014):
“Novel, Amphiphilic, Catalytically Active B₁₂ Derivative”; poster presentation
- YoungChem2013 International Congress of Young Chemists; Poznań, Poland (10.2013):
“Chemistry and Biological Activity of New Vitamin B₁₂ Derivatives”; **oral presentation**
- 4th European Symposium on Organic Reactivity (ESOR 2013); Prague, Czech Republic (09.2013):
“Selective Modifications of Vitamin B₁₂ Derivatives – Exploring the Reactivity of Cobyrinate Methyl Esters”;
poster presentation
- 1st Warsaw-Cambridge Young Scientist Meeting; Warsaw, Poland (03.2013):
“Synthesis of New Hydrophilic and Hydrophobic Cobinamides and Their Potential as NO-Independent sGC Activators”; poster presentation
- VI Warszawskie Forum Dyplomantów ChemoFor; Warsaw, Poland (05.2012):
“Synteza nowych hydrofilowych i hydrofobowych pochodnych kobinamidu i ich potencjał jako niezależnych od NO aktywatorów sGC”; poster presentation; **2nd-place award**
- VIII Warszawskie Seminarium ChemSession'11; Warsaw, Poland (05.2011):
“Synthesis of new hydrophobic and hydrophilic cobinamide derivatives”; poster presentation