

POLISH ACADEMY OF SCIENCES

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Prof. Daniel T. Gryko – Curriculum Vitae

Full name	Daniel Tomasz Gryko
Sex (male/female)	male
Date/Place of birth	24 December 1970, Białystok
Nationality	Polish
Present position	Professor
Profesional research field	Organic functional dyes
e-mail	daniel@icho.edu.pl
Permanent working place	Institute of Organic Chemistry, Polish Academy of Sciences
	Kasprzaka 44/52, 01 – 224 Warsaw
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Home address	ul. Zawiszy 16/72, 01-167 Warsaw, Poland

Education:

2003	Habilitation, 'Synthesis of meso-substituted corroles' Institute of Organic Chemistry, PAS
1997	Ph.D. with distinction'The Synthesis of Chiral Diazacoronands from L-Tartaric Acid and D-Mannitol'
1994 - 1997	Ph.D. studies, Institute of Organic Chemistry, PAS
1994	M.Sc., 'The Enantioselective Synthesis of Alkaloid Kryptostyline II', Warsaw University, Chemistry Department
1989 - 1994	Warsaw University, Chemistry Department
Employment :	
Since December	Professorship at Faculty of Chemistry of Warsaw University of Technology

2009	
Since April 2004	Head of the research group at the Institute of Organic Chemistry, PAS
2000 - 2004	Habilitant at the Institute of Organic Chemistry, PAS

Longer visits abroad

- 1) IX 1998-VI 2000: <u>post-doctoral scholarship</u> in *North Carolina State University*, Raleigh, USA, with prof. Jonathan Lindsey
- 2) IX 2003 and IX 2004: two, two-weeks visits in the Hannover University with Prof. Holger Butenschön
- 3) II-III 2005: <u>visiting professor</u> at University of Burgundy, Dijon, France with Prof. Roger Guilard

- 4) I-IV 2007: <u>visiting research scholar</u> at University of Texas at Austin, Austin, USA with Prof. Jonathan Sessler
- 5) VII-IX 2018: sabbatical leave at UC Berkeley

<u>Awards</u>

- 1. The Sigma-Aldrich prize for the best Ph.D. thesis in chemistry in Poland in 1997
- 2. Award of the Prime Minister of the Polish Government for the best Ph.D. thesis in chemistry in 1997
- 3. Scholarship of the Foundation for Polish Science in 2001 and 2002
- 4. The prize of the Polish Academy of Sciences for Young Polish Chemist in 2002
- 5. Award of the Prime Minister of the Polish Government for the best habilitation in chemistry in 2003, 2004
- 6. Society of Porphyrins and Phthalocyanines Young Investigator Award, 2008
- 7. The prize of Ministry of Science and Higher Education for scientific accomplishment, 2012.
- 8. W. Świętosławski Award of Polish Chemical Society, 2013
- 9. Award 'MISTRZ' from Foundation for Polish Science, 2013
- 10. Foundation for Polish Science Award, 2017 (the most prestigious scientific award in Poland)
- 11. Maria Sklodowska-Curie Award from President of the Polish Academy of Sciences (2018)

Key scientific achievements

- Methodology to synthesize gram quantities of *meso*-substituted-corroles in H₂O/MeOH/HCl system (2006). The crucial idea is the use of H₂O/MeOH/HCl as medium for the first step (cascade of electrophilic aromatic substitutions leading to tetrapyrranes and other pyrrole-aldehyde oligocondensates). The yields of *meso*-substituted A₃-corroles have been improved by the factor of two and amount of problematic porphyrin side-product was reduced to below the detection limit. In the case of *trans*-A₂B-corroles yields have been improved tenfold reaching 55%. This methodology immediately became popular among researchers around the world and it quickly dominated the field at least as long as aldehydes possessing reasonable molecular weight are concerned. There is no doubts that this synthetic developments significantly influenced the fate of corrole chemistry and increased their popularity as targets and tools in various areas of research. This research was definitely one of the major factors behind the 'renaissance' in corrole chemistry after 2000. 200 citations
- Liquid porphyrins (2009). First world liquid porphyrins were designed and prepared. *Meso*-substituted A₄-porphyrins bearing 3,4,5-trialkoxyphenyl substituents bearing twelve C10 and C11 alkyl chains turned out to be liquid at room temperature.
- π -Expanded diketopyrrolopyrroles (2011). The never existing before, S-shaped heterocyclic core has been synthesized in my group in 2011. Compounds are red-emitters, with high fluorescence quantum yields, high molar absorption coefficient and large two-photon absorption cross-section. This discovery immediately caught attention of various companies. It resulted in a few following papers, three patent applications, research contract with BASF etc.
- **1,4-Dihydropyrrole**[**3,2-***b*]**pyrroles** (**2012**). These compounds barely existed in the literature before the original paper was published and tetraaryl-compounds did not existed at all. We have discovered new multicomponent reaction leading directly from aromatic aldehydes, aromatic amines and biacetyl to these compounds in 30-50% yield, without the need for chromatographic purification. Their strong fluorescence both in solutions and in the solid state prerequisites them towards applications in organic light emitting diods.
- **3,9-Dioxa-perylene-2,8-diones (2014)**. The synthesis of two novel types of π -expanded coumarins has been developed. Modified Knoevenagel bis-condensation afforded 3,9-dioxa-perylene-2,8-diones. Subsequent oxidative aromatic coupling or light driven electrocyclization reaction led to dibenzo-1,7-dioxacoronene-2,8-dione.

• [1,2-b:1',2'-g][2,6]Naphthyridine-5,11-diones (2015). These brand new cross-conjugated donor-acceptor system has been synthesized in 2015 by simple reaction of 1,4-di(1H-pyrrol-1-yl)butane-1,4-dione with aliphatic acids in the presence of trifluoroacetic anhydride. It is worth to note that the last previous discovery of cross-conjugated chromophore happened in 1976. This discovery resulted in manuscript submitted to top journal, international patent application and research contract with BASF.

Scientific Activity

He published ~300 papers [including J. Am. Chem. Soc. IF (2019) = 13.8, Angew. Chem. IF (2019) = 11.5, Nature Communications IF (2019) = 14.0, Proc. Nat. Acad. Sci. USA IF (2019) = 9.7, Org. Lett. IF (2019) = 6.0, Chem. Commun. IF (2019) = 6.0]. Author of 18 review articles. Total number of citations excluding auto-citations ~7500 (~1000 citations in 2020). 13 papers cited more than 100 times. H-factor = 52.

International scientific cooperation

Most important previous collaborators:

- 1. Prof. Holger Butenschön (Hanover University, Germany) synthesis and studying the properties of ferroceno-porphyrins.
- 2. Prof. Martin Bröring (Marburg University, Germany) synthesis and properties of corroles possessing additional coordination center.
- 3. Prof. Francis D'Souza (Wichita State University, USA) electron transfer in dyads constructed from corroles and fullerene.

Current collaborators:

- 1. Prof. Kyo Han Ahn (Pohang University of Science and Technology, Pohang, Korea) fluorescent probes in detection of early stages of Alzheimer disease
- 2. Prof. Aleksander Rebane (Montana State University, Bozeman, USA) two-photon absorption
- 3. Prof. Karl Kadish (University of Houston, USA) electrochemistry of corroles
- 4. Prof. John Arnold (UC Berkeley, USA) coordination chemistry of corroles
- 5. Prof. Dongho Kim (Yonsei University, Korea) photophysics of functional dyes.
- 6. Prof. Harry Gray (CALTECH, Pasadena, USA) electronic structure of corroles bearing CF₃ groups at *meso* positions.
- 7. Prof. Eric Vauthey (University of Geneva, Switzerland) symmetry breaking in the excited state.
- 8. Prof. Valentine I. Vullev (UC Riverside, Riverside, USA) molecular electrets.
- 9. Prof. Pi-Tai Chou (NTU, Taipei, Taiwan) photophysics of corroles.
- 10. Prof. Dan Nocera (Harvard University, Cambridge, USA) symmetry breaking in the excited state.

Invited lectures

At meetings and conferences:

- 1. 2nd Polish-German Workshop: *Chemistry of Natural Products Synthesis, Chirality, Diversity*, Hanover (Germany), 2002.
- 2. 4thPoland-Korea Joint Symposium on organic chemistry, Warsaw (Poland), 2002.
- 3. 203rd *Meeting of Electrochemical Society*, France (Paris), 2003.
- 4. 44th Meeting of Polish Chemical Society, Poland (Lublin), 2003.
- 5. Docententagung, Dortmund (Germany), 2004
- 6. 3rd Polish-German *Workshop: Chemistry of Natural Products Synthesis, Chirality, Diversity*, Rydzyna, Poland, 2004
- 7. 3rd International Conference on Porphyrins and Phthalocyanines, Nowy Orlean (USA), 2004

- 8. 7th Ogólnopolskie Sympozjum Chemii Organicznej, Warsaw, Poland, 2004
- 9. 5thPoland-Korea Joint Symposium on Organic Chemistry, Gimhe, South Korea, 2004
- 10. 4th International Conference on Porphyrins and Phthalocyanines, Rome (Italy), 2006
- 11. *3rd Symposium of Korean Society for Photodynamic Therapy*, Seul, Korea, 2006
- 12. 211th Meeting of Electrochemical Society, Chicago, USA, 2007
- 13. 5th International Conference on Porphyrins and Phthalocyanines, Moscow, Russia, 2008
- 14. 7thPoland-Korea Joint Symposium on Organic Chemistry, Chuncheon, South Korea, 2008
- 15. 215th Meeting of Electrochemical Society, San Francisco, USA, 2009
- 16. 6th International Conference on Porphyrins and Phthalocyanines, Santa Ana, USA, 2010
- 17. FLOHET 12, Gainesville (USA), 2011
- 18. 219th Meeting of Electrochemical Society, Montreal (Kanada), 2011
- 19. 14th International Symposium on Novel Aromatic Compounds, Eugene (USA), 2011
- 20. YoungChem2011 International Congress of Young Chemists, Kraków (Polska), 2011
- 21. *Ist International Conference on Bioinspired Materials for Solar Energy Utilization* (*BIOSOL*), Chania (Grecja), 2011, **plenary lecture**
- 22. 7th International Conference on Porphyrins and Phthalocyanines, Jeju, Korea, 2012
- 23. 3rd Molecular Sensors & Molecular Logic Gates, Seoul, Korea, 2012
- 24. 223th Meeting of Electrochemical Society, Montreal, Canada, 12-16.05.2013
- **25.** *5th Georgian Bay International Conference on Bioinorganic Chemistry* π-Extended porphyrins –synthesis and optical properties, Parry Sound, Canada, 21-25.05.2013
- 26. BIT's 2nd Annual World Congress of Advanced Materials-2013, Suzhou, Chiny, 2013
- 27. 7th International Conference on Materials for Advanced Technologies, 30.06-05.07.2013, Singapore.
- 28. *15th International Symposium on Novel Aromatic Compounds*, 28.07.-02.08.2013, Taipei, Taiwan
- 29. 56th Polish Chemical Society Meeting, 16-20.09.2013, Siedlee, Poland
- 30. Responsive Matrices for Solar Fuels, Leiden, Netherlands, 28.10.-01.11.2013
- 31. 15th International Symposium on Novel Aromatic Compounds (ISNA-15), Taipej, Taiwan, 2013
- 32. 8th International Conference on Porphyrins and Phthalocyanines (ICPP-8), Istanbul, Turkey, 2014
- 33. BIT's 3rd Annual World Congress of Advanced Materials, Chongqing, China, 2014
- 34. 248th National ACS Meeting Division of Physical Chemistry, San Francisco, USA, 2014
- 35. From Carbon-Rich Molecules to Carbon-Based Materials, Casablanca, Marocco, 2014
- 36. TwO Photon absorbers for BIOmedical applications, Bordeaux, France, 2014
- 37. Michinoku International Symposium on Porphyrins, Phthalocyanines and Functional π Molecules, Zao, Japonia, 2014
- 38. 9th Poland-Korea Conference on Organic Chemistry, Jeju, Korea, 2014
- 39. 16th International Symposium on Novel Aromatic Compounds (ISNA-15), Madrid, Spain, 2015
- 40. 12^{th} International Symposium on Functional π -Electron Systems, Seattle, USA, 2015
- 41. Pacifchem 2015, Honolulu, USA, 2015
- 42. 9th International Conference on Materials for Advanced Technologies, Singapore, 2017
- 43. Blue Danube Symposium on Heterocyclic Chemistry, Linz, Austria, 2017, plenary lecture
- 44. *26th International Society on Heterocyclic Chemistry Congress,* Regensburg, Germany, 2017
- 45. European Materials Research Society Fall Meeting 2017, Warsaw, Poland, 2017
- 46. 10th International Conference on Porphyrins and Phthalocyanines (ICPP-10), Monachium, Germany, 2018, **plenary lecture**
- 47. 2nd From Carbon-Rich Molecules to Carbon-Based Materials Conference, Nassau, Bahamas, 2018
- 48. German-Polish-Baltic Conference on Organic Chemistry, Hamburg, Germany, 2018
- 49. *MRS Spring Meeting and Exhibit*, Phoenix, USA, 2018
- 50. Aromaticity 2018 Meeting, Riviera Maya, Meksyk, 2018;
- 51. 11th Korea-Poland Joint Organic Chemistry Symposium, Pohang, Korea, 2018

52. 18th International Symposium on Novel Aromatic Compounds (ISNA-18), Sapporo, Japan, 2019

At universities:

- 1. Georg-August University of Göttingen, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2003
- 2. University of Paderborn, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2003.
- 3. Friedrich-Alexander University of Erlangen-Nürnberg, Erlangen, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2003
- 4. University of Bremen, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2003
- 5. University of Hamburg, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2003
- 6. Bielefeld University, Bielefeld, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2003
- 7. Free University of Berlin, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2003
- 8. North Carolina State University, Raleigh, USA, '*Recent advances in the synthesis of meso-substituted corroles*',07-2003
- 9. University of Connecticut, Storrs, USA, '*Recent advances in the synthesis of meso*substituted corroles',07-2003
- 10. Hannover University, Hanover, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',09-2003
- 11. Adam Mickiewicz University, Poznań, Poland, '*Recent advances in the synthesis of meso-substituted corroles*',05-2003
- 12. Johns Hopkins University, Baltimore, USA, '*Recent advances in the synthesis of meso-substituted corroles*',07-2004
- 13. Braunschweig University of Technology, Germany, '*Recent advances in the synthesis of meso-substituted corroles*', 05-2004
- 14. University of Cologne, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2004
- 15. University of Marburg, Germany, '*Recent advances in the synthesis of meso-substituted corroles*',05-2004
- 16. University of Strasbourg, France, '*Recent advances in the synthesis of meso-substituted corroles*',02-2005
- 17. Orsay University, Paris, France, '*Recent advances in the synthesis of meso-substituted corroles and meso-substituted chlorins*', 02-2005
- 18. The University of Bourgogne, Dijon, France, '*Recent advances in the synthesis of meso-substituted corroles and meso-substituted chlorins*', 02-2005
- 19. The University of Karlsruhe, Germany, '*Recent advances in the synthesis of meso-substituted corroles and meso-substituted chlorins*', 05-2005
- 20. The University of Rome Tor Vergata, Italy, *Recent advances in the synthesis of meso-substituted chlorins and meso-substituted corroles* '05-2006
- 21. Montana State University, Bozeman, USA, *Recent advances in the synthesis of meso-substituted chlorins and meso-substituted corroles* '06-2006
- 22. Korean Institute of Science and Technology (KIST), Seoul, Korea, *Recent advances in the synthesis of meso-substituted chlorins and meso-substituted corroles* '08-2006
- 23. Woman's University, Seoul, Korea, *Recent advances in the synthesis of meso-substituted chlorins and meso-substituted corroles* '08-2006
- 24. University of Nijmegen, Netherlands, '*Recent advances in the synthesis of meso-substituted chlorins and meso-substituted corroles*', 05-2006

- 25. University of Houston, USA, '*Recent advances in the synthesis of meso-substituted chlorins and meso-substituted corroles* '02-2007
- 26. University of California in Berkeley, USA, '*Recent advances in the synthesis of meso-substituted chlorins and meso-substituted corroles*'04-2007
- 27. California Institute of Technology (CALTECH) in Pasadena, USA, '*Recent advances in the synthesis of meso-substituted chlorins and meso-substituted corroles*', 04-2007
- 28. Institute of Organic Synthesis and Photoreactivity of CNR in Bologna (Italy), *Meso-substituted corroles and meso-substituted chlorins*08-2007
- 29. Trinity College in Dublin, Ireland, 'Snapshots on the synthesis of meso-substituted corroles', 05-2008
- 30. Korean Advanced Institute of Science and Technology, Daejon, Korea, '*Meso*-substituted corroles from synthesis to spectroscopy and photophysics', 08-2008
- 31. University of Crete, Heraklion, '*Meso*-substituted corroles from synthesis to spectroscopy and photophysics', 01-2009
- 32. University of California Riverside, USA, '*Meso*-substituted corroles from synthesis to spectroscopy and photophysics', 05-2009
- 33. Istanbul Technical University, Turkey, '*Meso*-substituted corroles from synthesis to spectroscopy and photophysics', 06-2009
- 34. Technical University of Yildiz, Turkey, 'Locked chlorins the new approach', 06-2009
- 35. University of North Texas, Denton, USA, 'Locked chlorins the new approach', 07-2009
- 36. University of Tromso, Norway, '*Meso*-substituted corroles from synthesis to spectroscopy and photophysics', 10-2009
- 37. Kangwoon National University, 'Adventures in the synthesis of meso-substituted porphyrins and corroles', Korea, 02-2010
- 38. Korea University, Korea, 'Adventures in the synthesis of meso-substituted porphyrins and corroles', 02-2010
- 39. Kyoto University, Japan, 'Synthesis of π -expanded porphyrins and corroles', 02-2010
- 40. Tohoku University, Japan, 'Synthesis of π -expanded porphyrins and corroles', 02-2010
- 41. Johns Hopkins University, Baltimore, USA, 'Synthesis of π -expanded porphyrins and corroles', 07-2010
- 42. Linz University, Austria, '*Meso*-substituted corroles from synthesis to spectroscopy and photophysics', 03-2011
- 43. Max-Planck Institute for Inorganic Chemistry, Germany, '*Meso*-substituted corroles from synthesis to spectroscopy and photophysics', 04-2011
- 44. University of Toronto, 'Direct arylation of pyrrole derivatives', 05-2011
- 45. University of Sherbrooke, "*Meso*-substituted corroles from synthesis to spectroscopy and photophysics', 05-2011
- 46. Seul National University, Korea Płd., '10-Hydroxybenzo[*h*]quinoline derivatives and analogues– from synthesis to excited state intramolecular proton transfer', 06-2011
- 47. Ehwa Women's University, Korea Płd., 'Novel π-expanded porphyrins synthesis and optical properties', 06-2011
- 48. Boston College, USA, 'New heterocyclic fluorescent platforms excited state intramolecular proton transfer', 07-2011
- 49. University of Marseille, Francja, 'Novel π -expanded porphyrins synthesis and optical properties', 12-2011
- 50. University of Copenhagen, 'The synthesis and photophysical properties of new heterocyclic chromophores', 05-2012
- 51. BASF Schweiz, 'Bright, Color-Tunable Fluorescent Dyes Based on *π*-Expanded Diketopyrrolopyrrole', 22-08-2012
- 52. University of Florence, 'The synthesis and photophysical properties of new heterocyclic chromophores', 10-09-2012
- 53. University of South Denmark, 'Novel, two-photon absorbing heterocyclic functional dyessynthesis and optical properties', Odense, Denmark, 2013
- 54. Pohang Institute of Science and Technology, 'Novel, heterocyclic, emission-tunable functional dyes two-photon absorption and ESIPT', Pohang, Korea, 2013

- 55. Osaka University, 'Novel, heterocyclic, emission-tunable functional dyes two-photon absorption and ESIPT', Osaka, Japan, 2013
- 56. Osaka City University, 'Meso-Substituted Corroles and π -expanded Porphyrins from Synthesis to Photophysics', Osaka, Japan, 2013
- 57. Nanyang Technological University, 'Meso-Substituted Corroles and π -expanded Porphyrins from Synthesis to Photophysics', Singapore, 2013
- 58. Taipei National University, 'Novel, heterocyclic functional dyes two-photon absorption and ESIPT', Taipei, Taiwan, 2013
- 59. Tampere University of Technology, 'Novel, heterocyclic functional dyes two-photon absorption and ESIPT', Tampere, Finland, 2013
- 60. Institute of Physics PAS, 'Liniowe i nieliniowe wlasciwosci optyczne nowych barwnikow funkcjonalnych', Warsaw, Poland, 2013
- 61. Pohang Institute of Technology, Pohang, Korea 2014
- 62. Idemitsu Kosan, Chiba, Japan, 2014
- 63. The University of Electro-communications, Tokyo, Japan 2014
- 64. National University of Singapore, Singapore, 2014
- 65. Yonsei University, Seoul, Korea 11.2014
- 66. Oxford University, Oxford, UK, 2014
- 67. Tokyo University of Electro-Communications, 05-2015
- 68. Nagoya University, Nagoya, Japan, 05-2015
- 69. Kyushu University, Fukuoka, Japan, 05-2015
- 70. Friedrich-Alexander University of Erlangen-Nürnberg, Erlangen, Germany, 05-2015
- 71. University of Oregon, Eugene, USA, 07-2015
- 72. Kyushu University, Fukuoka, Japan, 07-2016
- 73. Kyoto University, Kyoto, Japan, 07-2016
- 74. University of Copenhagen, Denmark, 04-2017
- 75. Harward University, USA, 08-2017
- 76. North Carolina State University, USA, 08-2017
- 77. EMPA, St. Gallen, Switzerland, 10-2017
- 78. California Institute of Technology, USA, 11-2017
- 79. College of Chemistry, UC Berkeley, USA, 07-2018
- 80. University of Nevada Reno, USA, 09-2018
- 81. Lawrence Berkeley National Lab, Berkeley, USA, 09-2018
- 82. US Air Force Laboratory, Dayton, USA, 09-2018
- 83. Massachusetts Institute of Technology (MIT), Boston, USA, 09-2018
- 84. Johns Hopkins University, Baltimore, USA, 09-2018
- 85. Heliatek Gmbh., Dresden, Germany, 05-2019

Service

Work in the organizing committees:

- 1. Summer School of Supramolecular Chemistry local organizing committee, Ustroń, 1996.
- 2. 10th International Symposium on Molecular Inclusion and Recognition local organizing committee, Warsaw, 1998
- 3. 7th Polish Symposium of Organic Chemistry organizing committee, 2004.
- 4. Organizer of the symposium 'Synthesis and properties of corroles and other ring-contracted systems' as a part of 3rd International Conference on Porphyrins and Phthalocyanines, Nowy Orlean (USA), 2004.
- 5. Organizer of the symposium 'Synthesis and properties of corroles and other ring-contracted systems' as a part of 4th International Conference on Porphyrins and Phthalocyanines, Rome (Italy) 2006.
- 6. Main organizer of the conference '(R)Evolution in Catalysis', Warsaw (Poland) 2010.

Work as a referee:

- 1. J. Org. Chem.
- 2. Angew. Chem.
- 3. Org. Lett.
- 4. J. Am. Chem. Soc.
- 5. Chem. Eur. J. etc.

Society memberships

- 1. Member of American Chemical Society since 1999.
- 2. Funding member of Society of Porphyrins and Phthalocyanines (since 2000).
- 3. Member of Polish Chemical Society.

Students previously and currently advised

Former and present master students:

- 1. Katarzyna Piechota (nee Jadach) 2002
- 2. Mariusz Tasior 2003
- 3. Dagmara Wyrostek 2007
- 4. Maciej Rogacki 2008
- 5. Kamil Skonieczny
- 6. Wioleta Borzęcka

Former Ph.D. - students:

- 1. Ph.D. Beata Koszarna 2006
- Ph.D. Mariusz Tasior 2008
 Ph.D. Michał Gałęzowski –
- 2008 4. Ph.D. Olena Vakuliuk - 2011
- 4. Ph.D. Olena Vakuliuk 2011
- 5. Ph.D. Joanna Piechowska 2011
- Ph.D. Roman Voloshchuk -2012
- 7. Ph. D. Jan Lewtak 2012
- Ph.D. Agnieszka Nowak-Król - 2013
- 9. Ph.D. Jan Klajn 2013
- 10. Ph.D. Anita Janiga 2014
- 11. Ph.D. Marek Grzybowski -2014
- 12. Ph.D. Dikhi Firmansyah -2015
- 13. Ph.D. Rashid Nazir 2015

Research grants

- 14. Ph.D. Anton Stasiuk 2015
- 15. Ph.D. Maciej Krzeszewski
- 16. Ph.D. Anna Purc
- 17. Ph.D. Kamil Skonieczny
- 18. Ph.D. Marek Węcławski
- 19. Ph.D. Rafał Stężycki
- 20. Ph.D. Bartłomiej Sadowski
- 21. Ph.D. Łukasz Kielesiński

Current Ph.D. - students:

- 1. M.S. Dinesh Kumar
- 2. M.S. Katerina Vygranenko
- 3. M.S. Rafał Orlowski
- 4. M.S. Łukasz Łukasiewicz
- 5. M.S. Krzysztof Gutkowski
- 6. M.S. Gana Sanil
- 7. M.S. Jaqueline Badaro
- Grant from Polish Ministry of Scientific Research and Higher Education 4 T09A 00 521 entitled, *'The synthesis of meso-substituted corroles and meso-substituted chlorins'*, 2001-2004
- Grant from Volkswagen Foundation (2002-2006) entitled, '*The synthesis of core-metallocene-modified porphyrins*' with Prof. Holger Butenschön, Hannover University, Germany
- Grant from Polish Ministry of Scientific Research and Higher Education and DAAD (German Founding Agency) (with prof. M. Bröringiem from Marburg, Germany), 2004-2005
- Grant from Polish Ministry of Scientific Research and Higher Education 4 T09A 00 521 entitled, *'The synthesis of stable chlorins and bacteriochlorins for energy/electron transfer studies'*, (2006-2008).

- European Grant: Marie Curie Research Training Network, REVCAT, 'Revolutionary catalysts', 2006-2010.
- Grant from US Air Force (EOARD) 'Liquid porphyrins as optical limiters', 2007-2008
- Grant 'TEAM' from Foundation for Polish Science '*Novel chromophores for two-photon excitation fluorescence microscopy and optical limiting*', 2010-2014
- European Grant: Marie Curie Initial Training Network, 'Two-photon absorbers for biomedical applications' (TOPBIO), 2010-2014
- EuroSolarFuels Grant: 'Modular Design of a Bio-Inspired Tandem Cell for Direct Solar-to-Fuel Conversion', 2011-2014
- International Grant OLAE+, 'Inexpensive photovoltaic cells', 2013-2015.
- Grant Maestro (National Science Centre). 'New, effective methods for the synthesis of aromatic heterocycles via selective oxidative coupling', 2013-2018.
- Grant Ministerstwa Nauki i Szkolnictwa Wyższego Diamentowy Grant DI2012 000742 pt. "Fluorescencyjne analogi kumaryn o π-rozszerzonym chromoforze" (2013-2016).
- Grant National Science Centre (Poland) Preludium 5, "Synthesis of heterocyclic analogs of polycyclic aromatic hydrocarbons *via* formal oxidative coupling" (2014-2016)
- Grant from Polish Ministry of Science and Higher Education Diamond Grant DI2013 003643 pt. ,π-Expanded porphyrins *via* oxidative aromatic coupling of *meso*-(aryloamino)porphyrins – synthesis and photophysical properties" (2014-2017).
- Foreign partner in "Global Research Lab" financed by Korean National Research Forundation with prof. Kyo Han Ahn "Development of Two-photon Fluorescence Probes for Disease Diagnosis and Imaging' (11.2014-10.2020)
- Grant from National Science Centre (Poland) HARMONIA, "Synthesis, self-assembly and long-range electron transfer in amide-functionalized self-assembled corroles" (2016-2019)
- Grant *TEAM* from Foundation for Polish Science 'New generation of fluorescent probes for stimulated emission depletion microscopy' (2017-2020)