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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
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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 2009	Professorship at Faculty of Chemistry of Warsaw University of Technology
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**: post-doctoral scholarship 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**: visiting professor at University of Burgundy **,** Dijon, France with Prof. Roger Guilard

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

Awards

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 H_2O/MeOH/HCl system (2006)**. The crucial idea is the use of H_2O/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 A_3-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*-A_2B-corroles yields have been improved ten-fold 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 A_4-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 ~280 papers [including *J. Am. Chem. Soc.* IF (2008) = 13.8, Angew. Chem. IF (2011) 11.5, *J. Org. Chem.* IF (2008) = 4.5, *Org. Lett*. IF (2008) = 6.0, *Chem. Commun.* IF (2008) = 6.0]. Author of 17 review articles. Total number of citations excluding auto-citations ~6000 (~900 citations in 2017). 13 papers cited more than 100 times. **H-factor = 48.**

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 CF_3 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. Sebastian Maćkowski (Mikołaj Kopernik University, Toruń, Poland) – 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. *1st 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, Siedlce, 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. *12th 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 dyes-synthesis 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
2. Ph.D. Mariusz Tasior – 2008
3. Ph.D. Michał Gałęzowski – 2008
4. Ph.D. Olena Vakuliuk - 2011
5. Ph.D. Joanna Piechowska - 2011
6. Ph.D. Roman Voloshchuk - 2012
7. Ph. D. Jan Lewtak - 2012
8. 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
14. Ph.D. Anton Stasiuk – 2015
15. Ph.D. Maciej Krzeszewski
16. Ph.D. Anna Purc

Current Ph.D. - students:

1. M.S. Marek Węcławski
2. M.S. Rafał Stężycki
3. M.S. Rafał Orlowski
4. M.S. Łukasz Łukasiewicz
5. M.S. Kamil Skonieczny
6. M.S. Krzysztof Gutkowski
7. M.S. Łukasz Kielesiński
8. M.S. Bartłomiej Sadowski

Research grants

- 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 Butenschőn, 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)

List of publications

Prof. Daniel Gryko

1. Jurczak, J.; Chmurski, K.; Gryko, D. T.; Lipkowski, P.; Ostaszewski, R.; Sałański, P. 'Recent advances in high pressure organic synthesis: High pressure - mediated macrocyclization processes' in *High Pressure Science and Technology, Proceedings of the XV AIRAPT and XXXIII EHPRG International Conference,* ed. Trzeciakowski, J.; **1995**, 804.
2. Jurczak, J.; Gryko, D. T. Organic Synthesis at High Pressure. In *Chemistry under Extreme or Non Classical Conditions*; van Eldik, R.; Hubbard, C.D., Eds.; John Wiley & Sons, Inc. and Spektrum Akademisher Verlag: New York, Heidelberg, **1997**; pp. 163-188.
3. Gryko, D. T.; Piątek, P.; Jurczak, J., 'The synthesis of macrocyclic diamides and tetramides containing phenol units', *Tetrahedron* **1997**, *53*, 7957-7966.
4. Gryko, D. T.; Piątek, P.; Sałański, P.; Jurczak, J., 'The use of the Mitsunobu reaction in preparation of chiral synthons for macrocyclic frameworks', *Tetrahedron Asymmetry*, **1998**, *9*, 1771-1778.
5. Gryko, D. T.; Piątek, P.; Pęcak, A.; Pałys, M.; Jurczak, J., 'Synthetic and crystallographic studies on pyridinophanes', *Tetrahedron*, **1998**, *54*, 7505-7516.
6. Lipkowski, P.; Gryko, D. T.; Lipkowski, J.; Jurczak, J., 'The use of tris(2-Aminoethyl)amine in macrocyclization processes', *Tetrahedron Letters*, **1998**, *39*, 3833-3836.
7. Jurczak, J.; Gryko, D. T.; Lipkowski, P.; Sałański, P., 'Recent advances in high pressure organic synthesis: pressure-mediated processes based on transesterification' in *The Review of High Pressure Science and Technology, Proceedings of the XVI AIRAPT and XXXVIII HPCJ International Conference,* ed. Nakahara, M.; **1998**, Vol. 7, pp. 1236-1240.
8. Gryko, D. T.; Piątek, P.; Jurczak, J. 'The simple synthesis of chiral diazacoronands derived from D-mannitol and L-tartaric Acid' in *Molecular Recognition and Inclusion,* ed. Coleman A. W., Kluwer Academic Publishers, **1998**, 221-226.
9. Jurczak, J. Lipkowski, P.; Gryko, D. T.; Lipkowski, J. 'New macrocyclization reaction based on tris[2-aminoethylamine]', in *Molecular Recognition and Inclusion,* ed. Coleman A. W., Kluwer Academic Publishers, **1998**, 123-128.
10. Gryko, D. T.; Piątek, P.; Jurczak, J., 'An efficient method for preparation of chiral macrocyclic bisamides starting from diol derivatives of D-mannitol and L-tartaric acid', *Synthesis*, **1999**, 336-340.
11. Gryko, D. T.; Gryko, D.; Jurczak, J., 'Improved method for the preparation of macrocyclic diamides', *Synlett*, **1999**, 1310-1312.
12. Gryko, D. T.; Clausen, C.; Lindsey, J. S., 'Thiol-derivatized porphyrins for attachment to electroactive surfaces', *J. Org. Chem.* **1999**, *64*, 8635-8647.
13. Szumna, A.; Gryko, D. T.; Jurczak, J., 'Calcium complexes of macrocyclic lactams: the structure and calcium induced conformational changes', *J. Chem. Soc. Perkin Trans II*., **2000**, 1553-1558.
14. Achmatowicz, M.; Szczepańska, A.; Gryko, D. T.; Sałański, P.; Jurczak, J., 'The simple synthesis of chiral polyazaoxacoronands', *Supramolecular Chemistry*, **2000**, *12*, 93-95.
15. Gryko, D. T.; Gryko, D.; Jurczak, J., 'An influence of structure of ester on results of its macrocyclization reaction with α,ω-diamine', *Supramolecular Chemistry*, **2000**, *12*, 101-104.
16. Piątek, P.; Lipkowski, P.; Gryko, D. T.; Jurczak, J., 'The use of tripodal reagents in the effective preparation of highly elaborated azacoronands', *Supramolecular Chemistry*, **2000**, *12*, 209-211.
17. Gryko, D. T.; Pęcak, A.; Koźmiński, W.; Piątek, P.; Jurczak, J., 'A new application of ^{15}N NMR spectroscopy to structural studies of macrocyclic lactams', *Supramolecular Chemistry*, **2000**, *12*, 229-235.
18. Gryko, D.T., 'A simple, rational synthesis of *meso*-substituted A_2B-corroles', *Chem. Commun.* **2000**, 2243-2244.
19. Roth, K. M.; Dontha, N.; Dabke, R.; Gryko, D. T.; Clausen, C.; Lindsey, J. S.; Bocian, D. F.; Kuhr, W. G., 'Molecular approach toward information storage based on the redox properties of porphyrins in self-assembled monolayers', *J. Vac. Sci. Technol. B* **2000**, *18*, 2359-2364.

20. Gryko, D. T.; Clausen, C.; Roth, K. M.; Dontha, N.; Bocian, D. F.; Kuhr, W. G.; Lindsey, J. S., 'Synthesis of "Porphyrin-Linker-Thiol" molecules with diverse linkers for studies of molecular-based information storage', *J. Org. Chem.* **2000**, *65*, 7345-7355.
21. Gryko, D. T.; Zhao, F.; Yasseri, A. A.; Roth, K. M.; Bocian, D. F.; Kuhr, W. G.; Lindsey, J. S., 'Synthesis of thiol-derivatized ferrocene-porphyrins for studies of molecular-based information storage', *J. Org. Chem.* **2000**, *65*, 7356-7362.
22. Clausen, C.; Gryko, D. T.; Dabke, R.; Dontha, N.; Bocian, D. F.; Kuhr, W. G.; Lindsey, J. S., 'Synthesis of thiol-derivatized porphyrin dimers and trimers for studies of architectural effects on multibit information storage', *J. Org. Chem.* **2000**, *65*, 7363-7370.
23. Clausen, C.; Gryko, D. T.; Yasseri, A. A.; Diers, J. R.; Bocian, D. F.; Kuhr, W. G.; Lindsey, J. S., 'Investigation of tightly coupled porphyrin arrays of identical monomers for multibit information storage', *J. Org. Chem.* **2000**, *65*, 7371-7378.
24. Gryko, D. T.; Clausen, P. C.; Roth, K. M.; Bocian, D. F.; Kuhr, W. G.; Lindsey, J. S. 'High Density Non-Volatile Memory device incorporating thiol-Derivatized Porphyrins', US Patent 6208553.
25. Clausen, P. C.; Gryko, D. T.; Bocian, D. F.; Kuhr, W. G.; Lindsey, J. S. 'Tightly Coupled Porphyrin Macrocycles for Moleclar Memory Storage', US Patent 6324091.
26. Gryko, D. T.; Jadach, K., 'A simple and versatile one-pot synthesis of *meso*-substituted *trans*-A_2B-corroles', *J. Org. Chem.*, **2001**, *66*, 4267-4275.
27. Youngblood, W. J.; Gryko, D. T.; Lammi, R. K.; Diers, J. R.; Bocian, D. F.; Holten, D.; Lindsey, J. S., 'Glaser-mediated synthesis and photophysical characterization of diphenylbutadiyne-linked porphyrin dyads', *J. Org. Chem.*, **2002**, *67*, 2111-2117.
28. Roth, K. M.; Gryko, D. T.; Clausen, C.; Li, J.; Lindsey, J. S.; Kuhr, W. G.; Bocian, D. F., 'Comparison of electron-transfer and charge-retention characteristics of porphyrin-containing self-assembled monolayers designed for molecular information storage', *J. Phys. Chem. B.*, **2002**, *106*, 8639-8648.
29. Jurczak, J.; Gryko, D. T., 'Pressure effects in organic chemistry', *Diffusion and Defects Forum*, **2002**, *208-209*, 95-105.
30. Szumna, A.; Gryko, D. T.; Jurczak, J., 'The synthesis and structure of macrocyclic pyridinophanes – potential anion receptors', *Heterocycles*, **2002**, *56*, 361-368.
31. Roth, K. M.; Dabke, R.; Liu, Z.; Yasseri, A. A.; Gryko, D. T.; Clausen, C.; Lindsey, J. S.; Bocian, D. F.; Kuhr, W. G. 'Charge-retention characteristics of self-assembled monolayers "Molecular-Wire" linked porphyrins on gold', In "Molecules as Components of Electronic Devices," *ACS Symposium Series*, **2002**, 844(5), 51-61.
32. Gryko, D. T., 'Recent advances in the synthesis of *meso*-substituted corroles and core-modified corroles', *Eur. J. Org. Chem.*, **2002**, 1735-1743.
33. Gryko, D. T.; Piechota, K. E., 'Synthesis of *meso*-substituted *trans*-A_2B-corroles bearing basic nitrogen groups', *J. Porphyrins Phthalocyanines*, **2002**, *6*, 81-97.
34. Guilard, R.; Gryko, D. T.; Canard, G.; Barbe, J.-M.; Koszarna, B.; Brandès, S.; Tasior, M., 'Synthesis of corroles bearing up to three different *meso* substituents', *Org. Lett.*, **2002**, *4*, 4491-4494.
35. Gryko, D. T.; Koszarna, B. 'Refined methods for the synthesis of *meso*-substituted A_3- and *trans*-A_2B-corroles', *Org. Biomol. Chem.*, **2003**, *1*, 350-357.
36. Gryko, D. T.; Tasior, M., 'Simple route to *meso*-substituted *trans*-A_2B_2-porphyrins bearing pyridil units', *Tetrahedron Letters*, **2003**, *44*, 3317-3321.
37. Gryko, D. T.; Tasior, M.; Koszarna, B., 'Parallel synthesis of meso-substituted corroles and [22]pentaphyrins(1.1.1.1.0.0) from diacyldipyrromethanes', *J. Porphyrins Phthalocyanines*, **2003**, *7*, 239-248.
38. Gryko, D.; Gryko, D. T.; Sierzputowska-Gracz, H.; Piątek, P.; Jurczak, J., 'Factors influencing the Course of the Macrocyclization of α,ω-diamines with esters of α,ω-dicarboxylic acids', *Helv. Chim. Acta*, **2004**, *87*, 156-166.
39. Balakumar, A.; Lysenko, A. B.; Carcel, C.; Malinovskii, V. L.; Gryko, D. T.; Schweikart, K.-H.; Loewe, R. S.; Yasseri, A. A.; Liu, Z.; Bocian, D. F.; Lindsey, J. S., 'Diverse redox-active molecules bearing O-, S-, or Se-terminated tethers for attachment to silicon in studies of molecular information storage', *J. Org. Chem.*, **2004**, *69*, 1435-1443.

40. Piątek, P.; Gryko, D. T.; Szumna, A.; Jurczak, J., 'A new strategy for the synthesis of pendant benzodiazacoronands and their use as components of chromatographic stationary phases', *Tetrahedron*, **2004**, *60*, 5769-5776.
41. Sashuk, V.; Koszarna, B., Winiarek, P.; Gryko, D. T.; Grela, K., 'The simple synthesis of stable A_3- and substituted *trans*-A_2B-molybdenum(V) corrolates', *Inorg. Chem. Commun.*, **2004**, 7, 871-875.
42. Gryko, D. T.; Koszarna, B., 'Refined synthesis of *meso*-substituted *trans*-A_2B-corroles bearing electron-withdrawing groups', *Synthesis*, **2004**, 2205-2209.
43. Gryko, D. T.; Fox, J. P.; Goldberg, D. P. 'The recent advances in the synthesis of corroles and core-modified corroles', *J. Porphyrins Phthalocyanines*, **2004**, *8*, 1091-1105.
44. Gryko, D. T.; Gałęzowski, M., 'Simple approach to locked chlorins', *Org. Lett.*, **2005**, *7*, 1749-1752.
45. Gryko, D. T.; Koszarna, B., 'Isolation of phlorin-dipyrrin conjugates from the acid catalyzed condensation of dipyrromethanes and aldehydes', *Eur. J. Org. Chem.*, **2005**, 3314-3318.
46. Koszarna, B.; Gryko, D. T.; Butenschön, H., 'The synthesis and properties of bis-1,1'-(porphyrinyl)ferrocenes', *Org. Biomol. Chem.*, **2005**, *3*, 2640-2645.
47. Ventura, B.; Degli Esposti, A.; Koszarna, B.; Gryko, D. T.; Flamigni, L., 'Photophysical characterization of free-base corroles, promising chromophores for light-energy conversion and singlet oxygen generation', *New. J. Chem*. **2005**, *29*, 1559-1566.
48. Shen, J.; Shao, J.; Ou, Z.; E, W.; Koszarna, B.; Gryko, D. T.; Kadish, K. M., 'Electrochemistry and spectroelectrochemistry of *meso*-substituted free base corroles in nonaqueous media. Reactions of $(Cor)H_3$, $[(Cor)H_4]^+$ and $[(Cor)H_2]^{-\cdot}$, *Inorg. Chem*. **2006**, *45*, 2251-2265.
49. Koszarna, B.; Gryko, D. T. 'Efficient synthesis of *meso*-substituted corroles in a H_2O-MeOH mixture', *J. Org. Chem.*, **2006**, *71*, 3707-3717.
50. Koszarna, B.; Gryko, D. T. 'One-pot synthesis of *meso*-tris-aryl-substituted *N*-21-methyl- and *N*-21-benzyl-corroles', *Tetrahedron Lett*., **2006**, 47, 6205-6207.
51. Gałęzowski, M.; Gryko, D. T. 'Synthesis of locked *meso*-*β*-substituted chlorins via 1,3-dipolar cycloaddition', *J. Org. Chem*. **2006**, *71*, 5942-5950.
52. Wang, J.-J.; Li, J.-Z.; Gryko, D. T.; Shim, Y. K. 'Synthesis of chlorins linked with pyrazoline by 1,3-dipolar diazomethane cycloaddition reaction', *Bull. Korean Chem. Soc*. **2006**, *27*, 1083-1085.
53. Gryko, D. T.; Tasior, M.; Peterle, T.; Bröring, M. '*Meso*-substituted corroles bearing peripheral donor sites', *J. Porphyrins Phthalocyanines*, **2006**, *10*, 1360-1370.
54. Gryko, D. T.; Piechowska, J.; Tasior, M.; Waluk, J.; Orzanowska, G. 'From Bifunctional Nucleophilic Behavior of DBU to a New Heterocyclic Fluorescent Platform', *Org. Lett.*, **2006**, *8*, 4747-4750.
55. Tasior, M.; Gryko, D. T.; Cembor, M.; Jaworski, J. S.; Flamigni, L.; Ventura, B. 'Photoinduced energy and electron transfer processes in 1,8-naphtalimide-corrole dyads', *New J. Chem*. **2007**, *31*, 247-259.
56. Ou, Z.; Shen, J.; Shao, J.; E, W.; Gałęzowski, M.; Gryko, D. T.; Kadish, K. M., 'Protonated free-base corroles: acidity, electrochemistry and spectroelectrochemistry of $[(Cor)H_4]^+$, $[(Cor)H_5]^{2+}$ and $[(Cor)H_6]^{3+}$, *Inorg. Chem*. **2007**, *46*, 2775-2786.
57. Flamigni, L.; Ventura, B.; Tasior, M.; Gryko, D. T. 'Photophysical properties of a new, stable corrole-porphyrin dyad', *Inorg. Chim. Acta*, **2007**, *360*, 803-813.
58. Koszarna, B.; Voloshchuk, R.; Gryko, D. T. 'New approach towards *meso*-substituted *trans*-A_2B-corroles from alkyl oxalyl chlorides and dipyrromethanes', *Synthesis*, **2007**, 1339-1342.
59. Shen, J.; Ou, Z.; Shao, J.; Gałęzowski, M.; Gryko, D. T.; Kadish, K. M., 'Free-base corroles: determinantion of deprotonation constants in non-aqueous media' *J. Porphyrins Phthalocyanines*, **2007**, *11*, 269-276.
60. Czernuszewicz, R.; Mody, V.; Zareba, A. A.; Zaczek, M. B.; Gałęzowski, M.; Sashuk, V.; Grela, K.; Gryko, D. T. 'Solvent-dependent resonance Raman spectra of high-valent oxomolybdenum(V) tris[3,5-bis-(trifluoromethyl)phenyl]corrolate' *Inorg. Chem*. **2007**, *46*, 5616-5624.
61. Koszarna, B.; Gryko, D. T. '*Meso-meso* linked corroles', *Chem. Commun.* **2007**, 2994-2996.

62. .Gryko, D. T.; Piechowska, J.; Jaworski, J. S.; Gałęzowski, M.; Tasior, M.; Cembor, M.; Butenschön, H. 'Synthesis and properties of directly linked corrole-ferrocene systems', *New J. Chem*. **2007**, *31*, 1613-1619.
63. Tasior, M.; Gryko, D. T. 'The synthesis of *trans*-A_2B-corroles bearing acridine moiety', *Heterocycles*, **2007**, *71*, 2735-2742.
64. Gałęzowski, M.; Gryko, D. T. 'Recent advances in the synthesis of hydroporphyrins', *Curr. Org. Chem*. **2007**, *11*, 1310-1338.
65. Flamigni, L.; Ventura, B.; Tasior, M.; Becherer, T.; Langhals, H.; Gryko, D. T. 'New and efficient arrays for photoinduced charge separation based on perylene bisimide and corroles', *Chem. Eur. J*. **2008**, *14*, 169-183.
66. Koszarna, B.; Gryko, D. T. 'The synthesis of corroles', *Wiad. Chem.* **2008**, *62*, 165-185.
67. Rebane, A.; Drobizhev, M.; Makarov, N. S.; Koszarna, B.; Tasior, M.; Gryko, D. T., 'Two-Photon Absorption Properties of *meso*-substituted A_3-corroles', *Chem. Phys. Lett.*, **2008**, *462*, 246-250.
68. D'Souza, F.; Chitta, R.; Ohkubo, K.; Tasior, M.; Subbaiyan, N. K.; Zandler, M. E.; Rogacki, M. K.; Gryko, D. T.; Fukuzumi, S. 'Corrole-Fullerene Dyads: Formation of Long-Lived Charge-Separated States in Non-Polar Solvents', *J. Am. Chem. Soc*., **2008**, *130*, 14263-14272.
69. Gryko, D. T. 'Adventures in the synthesis of *meso*-substituted corroles', *J. Porphyrins Phthalocyanines*, **2008**, *12*, 906-917.
70. Gryko, D. T.; Wyrostek, D.; Nowak-Król, A.; Abramczyk, K.; Rogacki, M. K., 'Straightforward transformation of pentafluorobenzaldehyde into 4-aryloxy-2,3,5,6-tetrafluorobenzaldehydes', *Synthesis*, **2008**, 4028-4032.
71. Tasior, M.; Gryko, D. T.; Shen, J.; Kadish, K. M.; Becherer, T.; Langhals, H.; Ventura B.; Flamigni, L., Energy- and electron-transfer processes in corrole-perylenebisimide-triphenylamine array', *J. Phys. Chem. C*, **2008**, *112*, 19699-19709.
72. Gryko, D. T.; Voloshchuk, R., 'The synthesis and spectroscopic properties of 1-(acridin-9-yl)-dipyrranes and 1-(acridin-9-yl)-dipyrrins', *J. Porphyrins Phthalocyanines*, **2009**, *13*, 390-395.
73. Van Hameren, R.; Elemans, J. A. A. W.; Wyrostek, D.; Tasior, M.; Gryko, D. T.; E. Rowan A. E.; Nolte R. J. M. 'Self-assembly of corrole trimers in solution and at the solid-liquid interface', *J. Mat. Chem*. **2009**, *19*, 66-69.
74. Lewiński, J.; Suwała, K.; Kaczorowski, T.; Gryko, D. T.; Justyniak, I.; Gałęzowski, M.; Lipkowski, J., 'Oxygenation of Alkylzinc Complexes with Pyrrolylketiminate Ligand: Access to Alkylperoxide versus Oxo-Encapsulated Complexes', *Chem. Commun*. **2009**, 215-217.
75. Voloshchuk, R.; Gałęzowski, M.; Gryko, D. T. 'Oxidation of 2,5-dialkylpyrrole derivatives with ammonium cerium nitrate', *Synthesis*, **2009**, 1147-1152.
76. Flamigni, L.; Gryko, D. T. 'Photoactive corrole-based arrays', *Chem. Soc. Rev*., **2009**, *38*, 1635-1646.
77. Gałęzowski, M.; Jaźwiński, J.; Lewtak, J. P.; Gryko, D. T. 'Rational synthesis of tripyrranes', *J. Org. Chem*. **2009**, *74*, 5610-5613.
78. Mody, V. V.; Fitzpatrick, M. B.; Zabaneh, S. S.; Czernuszewicz, R. S.; Gałęzowski, M.; Gryko, D. T., 'Solvent effects on the electronic and vibrational properties of high-valent oxomolybdenum(V) 5,10,15-triphenylcorrole probed by UV–visible and resonance Raman spectroscopy', *J. Porphyrins Phthalocyanines*, **2009**, *13*, 1040-1052.
79. Czernuszewicz, R. S.; Mody, V.; Czader, A.; Gałęzowski, M.; Gryko, D. T., 'Why the Chromyl Bond Is Stronger than the Perchromyl Bond in High-Valent Oxochromium(IV,V) Complexes of Tris(pentafluorophenyl)corrole', *J. Am. Chem. Soc*. **2009**, *131*, 14214-14215.
80. Rebane, A.; Makarov, N.; Drobizhev, M.; Koszarna, B.; Gałęzowski, M.; Gryko, D. T., 'Two-photon absorption spectroscopy of corroles', *SPIE Proceedings.*, **2009**, *7213*, 72130Q1-7231Q9.
81. Gryko, D. T.; Piechowska, J.; Vetokhina, V.; Wójcik, D., 'Fluorescent dyes with 2-amino-4,7-diazaindole skeleton - synthesis and spectroscopy', *Bull. Chem. Soc. Jpn*. **2009**, *82*, 1514-1519.
82. Gryko, D. T.; Vakuliuk, O.; Gryko, D.; Koszarna, B., 'Palladium-catalyzed 2-Arylation of Pyrroles', *J. Org. Chem*. **2009**, *74*, 9517-9520.
83. Flamigni, L.; Wyrostek, D.; Voloshchuk, R.; Gryko, D. T., 'Solvent polarity effect on intramolecular electron transfer in a corrole-naphthalene bisimide dyad', *Phys. Chem. Chem. Phys*., **2010**, *12*, 474-483.

84. Tasior, M.; Gryko, D. T.; Pielacińska, D. J.; Zanelli, A.; Flamigni, L. '*Trans*-A_2B-corroles bearing coumarin moiety – from synthesis to photophysics', *Chem. Asian J.* **2010**, *5*, 130-140.
85. Gryko, D. T.; Piechowska, J.; Gałęzowski, M. 'Strongly emitting fluorophores based on 1-azaperylene scaffold', *J. Org. Chem*. **2010**, *75*, 1297-1300.
86. Nowak-Król, A.; Gryko, D.; Gryko, D. T. '*Meso*-substituted liquid porphyrins', *Chem. Asian J.* **2010**, *5*, 904-909.
87. Gryko, D. T.; Rogacki, M. K.; Klajn, J.; Gałęzowski, M.; Stępień, D. K.; Cyrański M. K. 'Unprecedented 1,3-dipolar cycloaddition – from 1,4,5,8-naphthalene bisimides to a new heterocyclic skeleton', *Org. Lett*. **2010**, *12*, 2020-2023.
88. Kim, S. H.; Park, H.; Seo, M. S.; Kubo, M.; Ogura, T.; Klajn, J.; Gryko, D. T.; Valentine, J. S.; Nam, W. 'Reversible O-O Bond Cleavage and Formation between Mn(IV)–Peroxo and Mn(V)–Oxo Corroles', *J. Am. Chem. Soc*. **2010**, *132*, 14030-14032.
89. Kalkan Burat, A.; Koca, A.; Lewtak, J. P.; Gryko, D. T. 'Synthesis, physicochemical properties and electrochemistry of novel morpholine substituted phthalocyanines', *J. Porphyrins Phthalocyanines*, **2010**, *14*, 605-614.
90. Jeong, S.-D.; Nowak-Król A.; Kim Y.; Kim S.-J., Gryko D. T.; C.-H. Lee, '*meso*-Alkylidene (*m*-benzi)pentaphyrin: a modified pentaphyrin bearing exocyclic double bonds at *meso*-positions', *Chem. Commun.*, **2010**, *46*, 8737-8739.
91. Świder, P.; Nowak-Król, A.; Voloshchuk, R.; Lewtak, J. P.; Gryko, D. T.; Danikiewicz, W. 'Mass spectrometry studies on meso-substituted corroles and their decomposition products', *J. Mass Spectrom*. **2010**, *45*, 1443-1451.
92. Nowak-Król, A.; Koszarna, B.; Yoo; S. Y.; Chromiński, J.; Węcławski, M. K.; Lee, C.-H.; Gryko, D. T., 'Synthesis of *trans*-A_2B_2-porphyrins bearing phenylethynyl substituents', *J. Org. Chem*. **2011**, *76*, 2627-2634.
93. Vakuliuk, O.; Koszarna, B.; Gryko, D. T. 'Base-mediated direct arylation of pyrrole derivatives', *Adv. Synth. Cat*. **2011**, *353*, 925-930.
94. Vakuliuk, O.; Gryko, D. T. 'Direct arylation of pyrrole derivatives in ionic liquids', *Eur. J. Org. Chem*. **2011**, 2854-2859.
95. Vakuliuk, O.; Koszarna, B.; Gryko, D. T. 'Direct arylation of pyrrole derivatives in superbasic media', *Synthesis*, **2011**, 2833-2837.
96. Vakuliuk, O.; Mutti, F. G.; Lara, M.; Gryko, D. T.; Kroutil, W. 'Chemoselective aerobic oxidation of 4-allylanisol by Fe(III) porphyrins in an aqueous media', *Tetrahedron Lett*., **2011**, *52*, 3555-3557.
97. Tasior, M.; Voloshchuk, R.; M. Poronik, Y. M.; Rowicki, T. Gryko, D. T., 'Corroles bearing diverse coumarin units – synthesis and optical properties', *J. Porphyrins Phthalocyanines*, **2011**, *15*, 1011-1023.
98. Kalkan Burat, A.; Koca, A.; Lewtak, J. P.; Gryko, D. T., 'Preparation, electrochemistry and optical properties of unsymmetrical phthalocyanines bearing morpholine and *tert*-butylphenoxy substituents, *Synth. Met*. **2011**, *161*, 1537-1545.
99. Lewtak, J. P.; Gryko, D.; Bao, D.; Sebai, E.; Vakuliuk, O.; Ścigaj, M.; Gryko, D. T. 'Naphthalene-fused metallo-porphyrins – synthesis and spectroscopy', *Org. Biomol. Chem*. **2011**, *9*, 8178-8181.
100. Piechowska, J. P.; Gryko, D. T. 'Preparation of a family of 10-hydroxybenzo[*h*]quinoline analogues *via* a modified Sanford reaction and their excited state intramolecular proton transfer properties', *J. Org. Chem*. **2011**, *76*, 10220-10228.
101. Flamigni, L.; Ciuciu, A. I.; Langhals, H. Böck, B.; Gryko, D. T.; 'Improving the photoinduced charge separation parameters in corrole/perylene carboximide dyads by tuning the redox and spectroscopic properties of the components, *Chem. Asian J*. **2012**, *7*, 582-592.
102. Deperasińska, I.; Gryko, D. T.; Karpiuk, E.; Kozankiewicz, B.; Makarewicz, A.; Piechowska J., '12-Hydroxy-1-azaperylene—Limiting Case of the ESIPT System: Enol–Keto Tautomerization in S_0 and S_1 States' *J. Phys. Chem. A*, **2012**, *116*, 2109–2116.
103. Gryko, D. T.; Gryko, D.; Lee, C.-H., '5-Substituted dipyrranes: synthesis and reactivity', *Chem. Soc. Rev*. **2012**, *41*, 3780-3789.
104. Grzybowski, M.; Glodkowska-Mrowka, E.; Stoklosa, T.; Gryko, D. T., 'Bright, color-tunable fluorescent dyes based on π–expanded diketopyrrolopyrroles, *Org. Lett*. **2012**, *14*, 2670-2673.

105. Poronik, Y. M.; Hugues, V.; Blanchard-Desce, M.; Gryko, D. T., 'Octupolar merocyanine dyes – a novel class of nonlinear optical chromophores', *Chem. Eur. J*. **2012**, *18*, 9258-9266.
106. Stasyuk, A. J.; Banasiewicz, M.; Cyrański, K. M.; Gryko, D. T., 'Imidazo[1,2-*a*]pyridines susceptible to excited state intramolecular proton transfer: one-pot synthesis *via* an Ortoleva-King reaction', *J. Org. Chem*. **2012**, *77*, 5552-5558.
107. Koszelewski, D.; Nowak-Król, A.; Gryko, D. T. 'Selective cycloaddition of tetracyanoethene (TCNE) and 7,7,8,8-tetracyano-*p*-quinodimethane (TCNQ) to *meso*-substituted phenylethynyl porphyrins', *Chem. Asian. J*. **2012**, *7*, 1887-1894.
108. Park, J.-Y.; Skonieczny, K.; Aratani, N.; Osuka, A.; Gryko, D. T.; Lee, C.-H., 'Calix[4]pyrroles bearing proximally meso-meso linking straps: synthesis and anion binding properties', *Chem. Commun*. **2012**, *48*, 8060-8062.
109. Piechowska, J.; Huttunen, K.; Gryko, D. T., Wróbel, Z.; Lemmetyinen, H.; Tkachenko, N. V., 'Excited State Intramolecular Proton Transfer in Electron-rich and Electron-poor Derivatives of 10-Hydroxybenzo[*h*]quinoline', *J. Phys. Chen. A*, **2012**, *116*, 9614-9620.
110. Lewtak, J. P., Gryko, D. T. 'Synthesis of π-extended porphyrins *via* intramolecular oxidative coupling', *Chem. Commun*. **2012**, *48*, 10069-10086.
111. Skonieczny, K.; Ciuciu, A. I.; Nichols, E.; Hugues, V.; Blanchard-Desce, M.; Flamigni, L.; Gryko, D. T. 'Bright, emission tunable fluorescent dyes based on imidazole and π-expanded imidazole', *J. Mat. Chem*. **2012**, ***22*, 20649-20664.**
112. Buckley, H. L.; Chomitz, W. A.; Koszarna, B.; Tasior, M.; Gryko, D. T.; Brothers P. J., Arnold, J., 'Synthesis of a Lithium Corrole and its Use as a Reagent for the Preparation of Cyclopentadienyl Zirconium and Titanium Corrole Complexes', *Chem. Commun*. **2012**, *48*, 10766-10768.
113. Tasior, M.; Hugues, V.; Blanchard-Desce, M.; Gryko, D. T., 'Benzo[1,2-*d*:4,5-*d'*]bisimidazoles as a Convenient Platform Towards Dyes Capable of Excited State Intramolecular Proton Transfer and of Two Photon Absorption', *Chem. Asian J*. **2012**, *7*, 2656-2661.
114. Voloshchuk, R.; Gryko, D. T.; Chotkowski, M.; Ciuciu, A. I.; Flamigni, L., 'Photoinduced electron transfer in an amine-corrole-perylene bisimide assembly: charge separation over terminal components favoured by solvent polarity', *Chem. Eur. J*. **2012**, *18*, 14845-14859.
115. Nowak-Król, A.; Wilson, C. J.; Drobizhev, M.; Kondratuk, D. V.; Rebane, A.; Anderson H. L.; Gryko, D. T., 'Amplified two-photon absorption in *trans*-A_2B_2-porphyrins bearing nitrophenylethynyl substituents', *ChemPhysChem*, **2012**, *13*, 3966-3972.
116. Skonieczny, K.; Charalambidis, G.; Tasior, M.; Krzeszewski, M.; Kalkan-Burat, A.; Coutsolelos, A. G.; Daniel T. Gryko, 'General and efficient protocol for formylation of aromatic and heterocyclic phenols', *Synthesis* **2012**, *44*, 3683-3687.
117. Czechowski, N.; Olejnik, M.; Nowak-Król, A.; Piątkowski, D.; Heiss, W.; Gryko, D. T.; Maćkowski, S., Fluorescence Microscopy of Corrole-Single Silver Nanowire Hybrid Nanostructures', *Acta Phys. Pol. A* **2012**, *122*, 333-336.
118. ó Proinsias, K.; Gryko, D. T.; Hisaeda, Y.; Martin, E.; Sessler, J. L.; Gryko D., 'Vitamin B_{12} Derivatives as Activators of Soluble Guanylyl Cyclase', *J. Med. Chem.*, **2012**, *55*, 8943–8947.
119. Deperasińska, I.; Gryko, D. T.; Karpiuk, E.; Kozankiewicz, B.; Makarewicz, A.; Piechowska, J., 'Low Temperature Spectra of the Analogues of 10-Hydroxybenzo[*h*]quinoline as an Indication of Barrierless ESIPT', *J. Phys. Chem. A*, **2012**, *116*, 12049-12055.
120. Lewandowska, K.; Barszcz, B.; Wolak, J.; Graja, A.; Grzybowski, M.; Gryko, D. T., 'Vibrational properties of new corrole-fullerene dyad and its components', *Dyes and Pigments* **2013**, *96*, 249-255.
121. Koszelewski, D.; Nowak-Król, A.; Drobizhev, M.; Wilson, C. J.; Haley, J. E.; Cooper, T. M.; Romiszewski, J.; Górecka, E.; Anderson H. L.; Rebane, A.; Gryko, D. T., 'Synthesis, linear and nonlinear optical properties of low-melting □-extended porphyrins', *J. Mat. Chem. C*, **2013**, 1, 2044-2053.

122. Bursa, B.; Wróbel, D.; Lewandowska, K.; Graja, A.; Grzybowski, M.; Gryko, D. T., 'Spectral studies of molecular orientation in corrole-fullerene thin films', *Synth. Met.* **2013**, *176*, 18-25
123. Ciuciu, A. I.; Skonieczny, K.; Koszelewski, D.; Gryko, D. T.; Flamigni, L., 'Dynamics of Intramolecular Excited State Proton Transfer in Emission Tunable, Highly Luminescent Imidazole Derivatives', *J. Phys. Chem. C*, **2013**, *117*, 791–803.
124. Peuntinger, K.; Lazarides, T.; Dafnomili, D.; Charalambidis, G.; Landrou, G.; Kahnt, A.; Sabatini, R. P.; McCamant, D. W.; Gryko, D. T.; Coutsolelos, A. G.; Guldi, D. M., 'Photoinduced Charge Transfer in Porphyrin–Cobaloxime and Corrole–Cobaloxime Hybrids', *J. Phys. Chem. C*, **2013**, *117*, 1647-1655.
125. Lewandowska, K.; Barszcz, B.; Wolak, J.; Graja, A.; Grzybowski, M.; Gryko, D. T., 'Spectroscopic properties of new corrole-fullerene dyad and its components', *Synth. Met.* **2013**, *166*, 70-76.
126. Buckley, H. L.; Anstey, M. R.; Gryko, D. T., Arnold, J., 'Lanthanide corroles: a new class of aromatic macrocyclic lanthanide complexes', *Chem. Commun*. **2013**, *49*, 3104-3106.
127. Ciuciu, A. I.; Flamigni, L., Voloshchuk, R.; Gryko, D. T. 'Light energy collection in a porphyrin-imide-corrole ensemble', *Chem. Asian J*. **2013**, *8*, 1004-1014.
128. Janiga, A.; Glodkowska-Mrowka, E.; Stoklosa, T.; Gryko D. T., 'Tetraaryl-1,4-dihydropyrrolo[3,2-*b*]pyrroles – synthesis and optical properties', *Asian J. Org. Chem*. **2013**, *2*, 411-415.
129. Firmansyah, D.; Ciuciu, A. I.; Hugues, V.; Blanchard-Desce, M.; Flamigni, L.; Gryko, D. T., 'Bright, fluorescent dyes based on imidazo[1,2-*a*]pyridines capable of two-photon absorption', *Chem. Asian J*. **2013**, *8*, 1279-1294.
130. Grzybowski, M.; Skonieczny, K.; Butenschön, H.; Gryko, D. T., 'Oxidative aromatic coupling versus Scholl reaction', *Angew. Chem. Int. Ed*. **2013**, *52*, 9900-9930.
131. Krzeszewski, M.; Vakuliuk, O.; Gryko, D. T., 'Color-tunable fluorescent dyes based on the benzo[*c*]coumarin', *Eur. J. Org. Chem*. **2013**, 5631-5644.
132. Hansen, P. E.; Fadhil S. Kamounah, F. S.; Gryko, D. T., 'Deuterium Isotope Effects on 13C-NMR Chemical Shifts of 10-Hydroxybenzo[*h*]quinolines', *Molecules* **2013**, *18*, 4544-4560.
133. Tasior, M.; Hugues, V.; Blanchard-Desce, M.; Gryko, D. T., 'V-shaped, strongly-emitting, π-expanded hydrophilic azacyanines – synthesis, linear and non-linear optical properties', *Asian J. Org. Chem*. **2013**, *2*, 669-673.
134. Chen, P.; Fang, Y.; Kadish, K. M.; Lewtak, J. P.; Koszelewski, D.; Janiga A.; Gryko, D. T., 'Electrochemically driven intramolecular oxidative aromatic coupling as a pathway towards π-extended porphyrins', *Inorg. Chem*. **2013**, ***52,*** 9532-9538.
135. Nowak-Król, A.; Grzybowski, M.; Romiszewski, J.; Drobizhev, M.; Wicks, G.; Chotkowski, M.; Rebane, A.; Górecka, E.; Gryko, D. T., 'Strong two-photon absorption enhancement in unique bis-porphyrin bearing diketopyrrolopyrrole unit' *Chem. Commun*. **2013**, ***49,*** 8368-8370.
136. Rotas, G.; Charalambidis, G.; Glätzl, L.; Gryko, D. T.; Kahnt, A.; Coutsolelos, A. G.; Tagmatarchis, N., 'A corrole–azafullerene dyad: synthesis, characterization, electronic interactions and photoinduced charge separation', *Chem. Commun.*, **2013**, *49*, 9128-9130.
137. Ciuciu, A. I.; Flamigni, L.; Skonieczny, K.; Gryko, D. T., 'Blue-green emitting sulphonamido-imidazole derivatives: ESIPT based excited state dynamics', *Phys. Chem. Chem. Phys.*, **2013**, *15*, 16907-16916.
138. Nazir, R.; Danilevicius, P.; Gray, H.; Farsari, M.; Gryko, D. T., 'Push-pull acylo-phosphine oxides for two-photon induced polymerization', *Macromolecules*, **2013**, *46*, 7239–7244.
139. Świder, P.; Lewtak, J. P.; Gryko, D. T.; Danikiewicz, W. Comparison of the sensitivity of mass spectrometry atmospheric pressure ionization techniques in the analysis of porphyrinoids, *Journal of Mass Spectrometry*, **2013**, *48*, 1116–1124.
140. Nowak-Król, A.; Gryko, D. T., 'Oxidative aromatic coupling of *meso*-arylamino-porphyrins', *Org. Lett*. **2013**, *15*, 5618-5621.

141. Poronik, Y. M.; Clermont, G.; Blanchard-Desce, M.; Gryko, D. T., 'A non-linear optical chemosensor for sodium ion based on rhodol chromophore', *J. Org. Chem.* **2013**, *78*, 11721-11732.
142. Kobayashi, T.; Mao, K.; Paluch, P.; Nowak-Król, A.; Sniechowska, J.; Nishiyama, Y.; Gryko, D. T.; Potrzebowski, M. J.; Pruski, M., 'Study of Intermolecular Interactions in the Corrole Matrix by Solid-State NMR under 100 kHz MAS and Theoretical Calculations', *Angew. Chem. Int. Ed.* **2013**, *52*, 14108-14111.
143. Koszarna, B.; Matczak, R.; Krzeszewski, M.; Vakuliuk, O.; Klajn, J.; Tasior, M.; Nowicki, J. T.; Gryko, D. T. 'Direct arylation of electron-poor indolizines', *Tetrahedron*, **2014**, *70*, 225-231.
144. Stasyuk, A. J.; Banasiewicz, M.; Ventura, B.; Cyrański, K. M.; Gryko, D. T., 'Benzo[*a*]imidazo[5,1,2-*cd*]indolizines – new class of molecules displaying excited state intramolecular proton transfer', *New J. Chem.* **2014**, *38*, 189-197.
145. Piechowska, J.; Virkki, K.; Sadowski, B.; Lemmetyinen, H.; Tkachenko, N. V.; Gryko, D. T., 'Excited State Intramolecular Proton Transfer in π-Expanded Phenazine-Derived Phenols', *J. Phys. Chem. A*, **2014**, *118*, 144-151.
146. Bocokić, V.; Kalkan, A.; Lutz, M.; Spek, A. L.; Gryko, D. T.; Reek, J. N. H., 'Capsule-controlled selectivity of a rhodium hydroformylation catalyst', *Nature Communications*, **2014**, *4*, 2670
147. Szymański, S.; Paluch, P.; Gryko, D. T.; Nowak-Król, A.; Bocian, W.; Sitkowski, J.; Koszarna, B.; Śniechowska, J.; Potrzebowski, M. J.; Kozerski, L., 'Insights into the Tautomerism in meso-Substituted Corroles: A Variable-Temperature ^{1}H, ^{13}C, ^{15}N, and ^{19}F NMR Spectroscopy Study', *Chem. Eur. J.* **2014**, *20*, 1720-1730.
148. Janiga, A.; Bednarska, D.; Thorsted, B.; Brewer, J.; Gryko, D. T., 'Quadrupolar, emission-tunable *π*-expanded 1,4-dihydropyrrolo[3,2-*b*]pyrroles – synthesis and optical properties', *Org. Biomol. Chem.* **2014**, *12*, 2874-2881.
149. Krzeszewski, M.; Thorsted, B.; Brewer, J.; Gryko, D. T., 'Tetra, Penta-, and Hexaaryl-1,4-dihydropyrrolo[3,2-*b*]pyrroles: Synthesis and Optical Properties', *J. Org. Chem.* **2014**, *79*, 3119-3128.
150. Poronik, Y. M., Daniel T. Gryko, D. T., 'Pentacyclic coumarin-based blue emitters - the case of bifunctional nucleophilic behavior of amidines', *Chem. Commun.* **2014**, *50*, 5688-5690.
151. Nazir, R.; Danilevicius, P.; Ciuciu, A. I.; Chatzinikolaidou, M.; Gray, D.; Flamigni, L.; Farsari, M.; Gryko D. T., 'π-Expanded keto-coumarins as efficient, biocompatible initiators for two-photon induced polymerization', *Chem. Mat.* **2014**, *26*, 3175-3184.
152. Ciuciu, A. I.; Firmansyah, D.; Hugues, V.; Blanchard-Desce, M.; Gryko, D. T., Flamigni, L. 'Non-classical donor–acceptor–donor chromophores. A strategy for high two-photon brightness' *J. Mater. Chem. C*, **2014**, *2*, 4552-4565.
153. Firmansyah, D.; Banasiewicz, M.; Deperasińska, I.; Makarewicz, A.; Kozankiewicz, B.; Gryko, D. T., 'Vertically π-Expanded Imidazo[1,2-a]pyridine: The Missing Link of the Puzzle', *Chem. Asian J.* **2014**, *9*, 2483–2493.
154. Castet, F.; Blanchard-Desce, M.; Adamietz, F.; Poronik, Y. M.; Gryko D. T. Rodriguez, V., 'Experimental and Theoretical Investigation of the First-order-Hyperpolarizability of Octupolar Merocyanines Dyes', *ChemPhysChem*, **2014**, *15*, 2575-2581.
155. Grzybowski, M.; Hugues, V.; Blanchard-Desce, M.; Gryko, D. T., ,Two-photon induced fluorescence in novel *π*-expanded diketopyrrolopyrroles', *Chem. Eur. J.* **2014**, *20*, 12493-12501.
156. Węcławski, M. K.; Tasior, M.; Hammann, T.; Cywiński, P. J.; Gryko, D. T., 'From π-expanded coumarins to π-expanded pentacenes', *Chem. Commun.* **2014**, *50*, 9105-9108.
157. Wilkinson, J. D.; Wicks, G.; Nowak-Król, A.; Łukasiewicz, Ł. G.; Wilson, C. J.; Drobizhev, M.; Rebane, A.; Gryko, D. T. Anderson, H. L. Two-photon absorption in butadiyne-linked porphyrin dimers: torsional and substituent effects, *J. Mater. Chem. C*, **2014**, *2*, 6802-6809.
158. Tasior, M.; Deperasińska, I.; Morawska, K.; Banasiewicz, M.; Vakuliuk, O.; Kozankiewicz, B.; Gryko, D. T., 'Vertically π-expanded coumarin – synthesis *via* the Scholl reaction and photophysical properties.' *Phys. Chem. Chem. Phys.*, **2014**, *16*, 18268-18275.

159. Richert, S.; Vazquez, S. M.; Grzybowski, M.; Gryko, D. T.; Kyrychenko, A.; Vauthey, E. 'Excited-State Dynamics of an Environment-Sensitive Push−Pull Diketopyrrolopyrrole: Major Differences between the Bulk Solution Phase and the Dodecane/Water Interface', *J. Phys. Chem. B* **2014**, *118*, 9952−9963.

160. Buckley, H. L.; Rubin, L. K.; Chromiński, M.; McNicholas, B. J.; Tsen, K.; Gryko, D. T.; Arnold, J., ‚Corroles that "Click": Modular Synthesis of Azido- and Propargyl-Functionalized Metallocorrole Complexes and Convergent Synthesis of a Bis-Corrole Scaffold', *Inorg. Chem.* **2014**, *53*, 7941-7950.

161. Janiga, A.; Gryko, D. T., '1,4-Dihydropyrrolo[3,2-*b*]pyrrole and Its π-Expanded Analogues', *Chem. Asian J.* **2014**, *9*, 3036–3045.

162. Fang, Y.; Koszelewski, D.; Kadish, K. M.; Gryko, D. T., 'Facile Electrosynthesis of π-Extended Porphyrins', *Chem. Commun.* **2014**, *50*, 8864-8867.

163. Ocakoglu, K.; Joya, K. S.; Harputlu, E.; Tarnowska A.; Gryko, D. T., 'A nanoscale bio-inspired light-harvesting system developed from self-assembled alkylfunctionalized metallochlorin nano-aggregates', *Nanoscale*, **2014**, *6*, 9625.

164. Matczak, R.; Koszarna, B.; Gryko, D. T., '1-(Imidazol-1-yl)-indolizines– two-step synthesis and optical properties', *Tetrahedron* **2014**, *70*, 7006-7009.

165. Tasior, M.; Poronik, Y. M.; Vakuliuk, O.; Sadowski, B.; Karczewski, M.; Gryko D. T., ‚V-Shaped Bis-Coumarins – Synthesis and Optical Properties', *J. Org. Chem.* **2014**, *79*, 8723-8732.

166. Głowacki, E. D.; Coskun, H.; Blood-Forsythe, M. A.; Monkowius, U.; Leonat, L.; Grzybowski, M.; Gryko, D.; White, M. S.; Aspuru-Guzik, A.; Sariciftci, N. S., ‚Hydrogen-bonded diketopyrrolopyrrole (DPP) pigment semiconductors in organic field-effect transistors', *Org. Electr.* **2014**, *15*, 3521-3528.

167. Nowak-Król, A.; Łukasiewicz, Ł. G.; Haley, J. E.; Drobizhev, M.; Rebane, A.; Cooper, T. M.; Gryko, D. T., ‚Soluble *meso*-tetrakis(arylethynyl)porphyrins – synthesis and optical properties', *J. Porphyrins Phthalocyanines* **2014**, *18*, 998-1013.

168. Kielesiński, Ł.; Tasior, M.; Gryko, D. T., ‚Polycyclic imidazo[1,2-*a*]pyridine analogs – synthesis *via* oxidative, intramolecular C-H amination and optical properties', *Org. Chem. Frontiers* **2015**, *2*, 21-28.

169. Bocian, W.; Paluch, P.; Nowak-Król, A.; Gryko, D. T.; Potrzebowski, M.; Kozerski L. ‚The ^{1}H, ^{13}C, ^{15}N and ^{19}F NMR chemical shifts assignments in 5,10,15-tris (pentafluorophenyl)tetra-^{15}N corrole at 191K', *Magn. Res.*, **2015**, *53*, 167-171.

170. Nowak-Król, A.; Plamont, R.; Canard, G.; Edzang, J. A.; Gryko D. T.; Teodor Silviu Balaban T. S., ‚An Efficient Synthesis of Porphyrins with Different *Meso* Substituents that Avoids Scrambling in Aqueous Media', *Chem. Eur. J.* **2015**, *21*, 1488-1498.

171. Janiga, A.; Krzeszewski, M.; Gryko, D. T., ‚Diindolo[2,3-*b*:2′,3′-*f*]pyrrolo[3,2-*b*]pyrroles as Electron-Rich, Ladder-Type Fluorophores: Synthesis and Optical Properties', *Chem. Asian J.*, **2015**, *10*, 212-218.

172. Erten-Ela, S.; Vakuliuk, O.; Tarnowska, A.; Ocakoglu, K.; Gryko, D. T., 'Synthesis of zinc chlorophyll materials for dye-sensitized solar cell applications', *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* **2015**, *135*, 676–682.
173. Nazir, R.; Bourquard, F.; Balčiūnas, E.; Smoleń, S.; Gray, D.; Tkachenko, N. V.; Farsari, M.; Gryko, D. T. 'π-Expanded α,β-unsaturated ketones – synthesis, optical properties and two-photon induced polymerization', *ChemPhysChem*, **2015**, *16*, 682-690.
174. Purc, A.; Sobczyk, K.; Sakagami, Y.; Ando, A.; Kamada, K.; Gryko, D. T., 'Strategy towards large two-photon absorption cross-sections for diketopyrrolopyrroles', *J. Mat. Chem. C*, **2015**, *3*, 742-749.
175. Firmansyah, D.; Banasiewicz, M.; Gryko, D. T., 'Vertically-expanded imidazo[1,2-*a*]pyridines and imidazo[1,5-*a*]pyridine *via* dehydrogenative coupling', *Org. Biomol. Chem*. **2015**, *13*, 1367-1374.
176. Stasyuk, A. J.; Smoleń, S.; Glodkowska-Mrowka, E.; Brutkowski, W.; Cyrański, M. K.; Tkachenko, N.; Gryko, D. T., Synthesis of Fluorescent Naphthoquinolizines *via* Intramolecular Houben–Hoesch Reaction', *Chem. Asian J*. **2015**, *10*, 553-558.
177. Tasior, M.; Kim, D.; Singha, S.; Krzeszewski, M.; Ahn, K. H.; Gryko, D. T. 'π-Expanded Coumarins: Synthesis, Optical Properties and Applications,' *J. Mat. Chem. C* **2015**, *3*, 1421-1446.
178. Voloshchuk, R.; Tasior, M.; Ciuciu, A. I.; Flamigni, L.; Gryko, D. T., 'Corrole–imide dyads - synthesis and optical properties', *J. Porphyrins Phthalocyanines* **2015**, *19*, 479-491.
179. Grzybowski, M.; Gryko, D. T., 'Diketopyrrolopyrroles – synthesis, reactivity, and optical properties', *Adv. Opt. Mat*. **2015**, *3*, 280-320.
180. Jeżewski, A.; Hammann, T.; Cywiński, P. J.; Gryko, D. T., 'Optical Behavior of Substituted 4-(2'-Hydroxyphenyl)imidazoles', *J. Phys. Chem. B*, **2015**, ***119,*** 2507-2514.
181. Banasiewicz, M.; Deperasińska, I.; Makarewicz, A.; Firmansyah, D.; Gryko, D. T.; Kozankiewicz, B. 'Why vertically π-expanded imidazo[1,2-*a*]pyridines are weak fluorescence emitters: experimental and computational studies', *Phys.Chem.Chem.Phys*., **2015**, *17*, 8945-8950.
182. Stasyuk, A. J.; Cyrański, M. K.; Gryko, D. T.; Solá, M., 'Acidic C−H Bond as a Proton Donor in Excited State Intramolecular Proton Transfer Reactions' *J. Chem. Theory Comput*. **2015**, *11*, 1046−1054.
183. Orłowski, R.; Vakuliuk, O.; Gullo, M. P.; Danylyuk, O.; Ventura, B.; Koszarna, B.; Tarnowska, A.; Jaworska, N.; Barbieri, A.; Gryko, D. T. 'Self-assembling corroles' *Chem. Commun.*, **2015**, *51*, 8284-8287.
184. Salamończyk, M.; Pociecha, D.; Nowak-Król, A.; Koszelewski, D.; Gryko, D. T. Górecka, E. 'Liquid-Crystalline Properties of *trans*-A_2B_2-Porphyrins with Extended π-Electron Systems' *Chem. Eur. J*. **2015**, *21*, 7384–7388.
185. Nazir, R.; Balčiūnas, E.; Buczyńska, D.; Bourquard, F.; Kowalska, D.; Gray, D.; Maćkowski, S.; Farsari, M.; Gryko, D. T. 'Donor-Acceptor Type Thioxanthones: Synthesis, Optical Properties, and Two-Photon Induced Polymerization', *Macromolecules* **2015**, *48*, 2466−2472.
186. Bursa, B.; Barszcz, B.; Bednarski, W.; Lewtak, J. P.; Koszelewski, D.; Vakuliuk, O.; Gryko, D. T.; Wróbel, D., 'New meso-substituted corroles possessing pentafluorophenyl groups-synthesis and spectroscopic characterization' *Phys.Chem.Chem.Phys*., **2015**, *17*, 7411-7423.
187. Krzeszewski, M.; Gryko, D. T. 'χ-Shaped Bis(areno)-1,4-dihydropyrrolo[3,2-*b*]pyrroles Generated by Oxidative Aromatic Coupling, *J. Org. Chem*. **2015**, *80*, 2893−2899.
188. Skonieczny, K.; Gryko, D. T. 'Photochemical Conversion of Phenanthro[9,10-d]imidazoles into π-Expanded Heterocycles', *J. Org. Chem*. **2015**, *80*, 5753-5763.
189. Bregnhøj, M.; Pimenta, F. M.; Poronik, Y. M.; Gryko, D. T.; Ogilby, P. R., 'Subtle structural changes in octupolar merocyanine dyes influence the photosensitized production of singlet oxygen' *Photochem. Photobiol. Sci*. **2015**, *14*, 1138-1146.
190. Grzybowski, M.; Glodkowska-Mrowka, E.; Hugues, V.; Brutkowski, W.; Blanchard-Desce, M.; Gryko, D. T. 'Polar Diketopyrrolopyrrole-Imidazolium Salts as Selective Probes for

Staining Mitochondria in Two-Photon Fluorescence Microscopy', *Chem. Eur. J.* **2015**, *21*, 9101-9110.

191. Nazir, R.; Meiling, T. T.; Cywiński, P. J.; Gryko, D. T. 'Synthesis and optical properties of α,β-unsaturated ketones bearing the benzofuran moiety', *Asian J. Org. Chem.* **2015**, *4*, 929-935.
192. Orłowski, R.; Banasiewicz, M.; Clermont, G.; Castet, F.; Nazir, R.; Blanchard-Desce, M.; Gryko, D. T. 'Strong solvent dependence of linear and non-linear optical properties of donor-acceptor type pyrrolo[3,2-*b*]pyrroles', *PhysChemChemPhys* **2015**, *17*, 23724-23731.
193. Deperasińska, I.; Makarewicz, A.; Krzeszewski, M.; Gryko, D. T.; Kozankiewicz, B. 'Photophysics of Derivatives of 3-Hydroxybenzo[*c*]coumarin', *J. Phys. Chem. A*, **2015**, *119*, 9051–9058.
194. Węcławski, M. K.; Meiling, T. T.; Leniak, A.; Cywiński, P. J.; Gryko, D. T. 'Planar, Fluorescent Push–Pull System That Comprises Benzofuran and Iminocoumarin Moieties', *Org. Lett.*, **2015**, *17*, 4252-4255.
195. Friese, D. H.; Mikhaylov, A.; Krzeszewski, M.; Poronik, Y. M.; Rebane, A.; Ruud, K.; Gryko D. T. 'Pyrrolo[3,2-*b*]pyrroles – from unprecedented solvatofluorochromism to two-photon absorption', *Chem. Eur. J.* **2015**, *21*, 18364-18374.
196. Tasior, M.; Bald, I.; Deperasińska, I.; Cywiński, P. J.; Gryko, D. T. 'Internal charge transfer-dependent solvent effect in V-shaped Azacyanines', *Org. Biomol. Chem.* **2015**, *13*, 11714-11720.
197. Tasior, M.; Chotkowski, M.; Gryko, D. T. 'Extension of pyrrolopyrrole π-system: approach to constructing hexacyclic nitrogen-containing aromatic systems, *Org. Lett.* **2015**, *17*, 6106-6109.
198. Firmansyah, D.; Deperasińska, I.; Vakuliuk, O.; Banasiewicz, M.; Tasior, M.; Makarewicz, A.; Cyrański, M. K.; Kozankiewicz, B.; Gryko, D. T. 'Double head-to-tail direct arylation as a viable strategy towards aza-analog of dihydrocyclopenta[*hi*]aceanthrylene – intriguing antiaromatic heterocycle' *Chem. Comm.* **2016**, *52*, 1262-1265.
199. Stasyuk, A. J.; Bultinck, P.; Gryko, D. T.; Cyrański, M. K., 'The effect of hydrogen bond strength on emission properties in 2-(2'-hydroxyphenyl)imidazo[1,2-*a*]pyridines' *J. Photochem. Photobiol. A: Chemistry* **2016**, *314*, 198–213.
200. Nazir, R.; Thorsted, B.; Balčiūnas, E.; Mazur, L.; Deperasińska, I.; Samoć, M.; Brewer, J.; Farsari, M.; Gryko, D. T. 'π-Expanded 1,3-Diketones – Synthesis, Optical Properties and Application in Two-Photon Polymerization', *J. Mat. Chem. C*, **2016**, *4*, 167-177.
201. Budzák, Š.; Charaf-Eddin, A.; Medved', M.; Gryko, D. T.; Jacquemin, D., 'Optical properties of V-shaped bis-coumarins: Ab initio insights', *Computational Theoretical Chemistry*, **2016**, *1076*, 57–64.
202. Purc, A.; Banasiewicz, M.; Glodkowska-Mrowka, E.; Gryko, D. T., 'The modulation of fluorescent properties of diketopyrrolopyrroles via various electron-rich substituents', *J. Mat. Chem. C*, **2016**, *4*, 2877-2885.
203. Grzybowski, M.; Jeżewski, A.; Deperasińska, I.; Friese, D. H.; Banasiewicz, M.; Hugues, V.; Kozankiewicz, B.; Blanchard-Desce, M.; Gryko, D. T. 'Solvatofluorochromic, non-centrosymmetric π-expanded diketopyrrolopyrrole', *Org. Biomol. Chem.* **2016**, *14*, 2025-2033.
204. Bursa, B.; Wróbel, D.; Barszcz, B.; Kotkowiak, M.; Vakuliuk, O.; Gryko, D. T. Kolanowski, Ł.; Baraniak, M.; Lota, G., 'The impact of solvents on the singlet and triplet states of selected fluorine corroles – absorption, fluorescence, and optoacoustic studies', *PhysChemChemPhys*, **2016**, *18*, 7216-7228.
205. Stężycki, R.; Grzybowski, M.; Clermont, G.; Blanchard-Desce, M.; Gryko, D. T., 'Z-Shaped Pyrrolo[3,2-*b*]pyrroles and Their Transformation into π-Expanded Indolo[3,2-*b*]indoles', *Chem. Eur. J.* **2016**, *22*, 5198-5203.
206. Rybicka-Jasińska, K.; Ciszewski, Ł. W.; Gryko, D. T.; Gryko, D. 'C-C Bond forming reactions catalyzed by chiral metallo-porphyrins', *J. Porphyrins Phthalocyanines*, **2016**, *20*, 76-95.
207. Skonieczny, K.; Yoo, J.; Larsen, J. M.; Espinoza, E. M.; Barbasiewicz, M.; Vullev, V. I.; Lee, C.-H.; Gryko, D. T. 'How to reach the intense luminescence for compounds capable of excited state intramolecular proton transfer?', *Chem. Eur. J.* **2016**, *22*, 7485-7496.

208. Grzybowski, M.; Deperasińska, I.; Chotkowski, M.; Banasiewicz, M.; Makarewicz, A.; Kozankiewicz, B.; Gryko, D. T., 'Dipyrrolonaphthyridinediones – structurally unique cross-conjugated dyes', *Chem. Commun*. **2016**, *52*, 5108-5111.
209. Śniechowska, J.; Paluch, P.; Bujacz, G.; Górecki, M.; Frelek, J.; Gryko, D. T.; Potrzebowski, M. J., 'Chiral crystals from porphyrinoids possessing a very low racemization barrier', *CrystEngComm*, **2016**, *18*, 3561-3565.
210. Łukasiewicz, Ł. G.; Deperasińska, I..; Poronik, Y. M.; Jun, Y. W.; Banasiewicz, M.; Kozankiewicz, B.; Ahn, K. H.; Gryko, D. T. 'Dipolar Dyes with Pyrrolo[2,3-*b*]quinoxaline Skeleton Containing a Cyano Group and a Bridged Tertiary Amino Group – Synthesis, Solvatofluorochromism and Bioimaging', *Chem. Asian. J*. **2016**, *11*, 1718–1724.
211. Węcławski, M. K.; Deperasińska, I.; Leniak, A.; Banasiewicz, M.; Kozankiewicz, B.; Gryko, D. T. 'Unexpected formation of π-expanded isoquinoline from anthracene possessing four electron-donating groups *via* the Duff reaction' *Org. Biomol. Chem*.**, 2016,** *14***,** 7046-7052.
212. Tasior, M.; Gryko, D. T. 'Synthesis and Properties of Ladder-Type BN-Heteroacenes and Diazabenzoindoles Built on a Pyrrolopyrrole Scaffold' *J. Org. Chem*. **2016**, *81*, 6580-6586.
213. Karikis, K.; Georgilis, E.; Charalambidis, G.; Petrou, A.; Vakuliuk, O.; Chatziioannou, T.; Raptaki, I.; Tsovola, S.; Papakyriacou, I.; Mitraki, A.; Gryko, D. T.; Coutsolelos, A. G. Corrole and Porphyrin Amino Acid Conjugates: Synthesis and Physicochemical Properties, *Chem. Eur. J*. **2016**, *22*, 11245-11252.
214. Stasyuk, A. J.; Cywiński, P.; Gryko, D. T. 'Excited-state intramolecular proton transfer in 2-(2'-hydroxyphenyl)imidazo[1,2-*a*]pyridines' *J. Photochem. Photobiol. C: Reviews* **2016**, *28*, 116-137.
215. Sadowski, B.; Klajn, J.; Gryko, D. T. 'Recent advances in the synthesis of indolizines and their π-expanded analogues' *Org. Biomol. Chem*.**, 2016,** *14*, 7804-7828**.**
216. Skonieczny, K.; Gryko, D. T. 'Light-Induced Direct Arylation in the Solid Crystalline State as a Strategy Towards π-Expanded Imidazoles' *Chem. Asian J*. **2016**, *11*, 2513-2517.
217. Kim, W.; Sung, J.; Grzybowski, M.; Gryko, D. T.; Kim D. 'Modulation of symmetry breaking intramolecular charge transfer dynamics assisted by pendant alkyl chains in π-linkers in quadrupolar diketopyrrolopyrrole derivatives' *J. Phys. Chem. Lett*. **2016**, *7*, 3060-3066.
218. Ventura, B.; Poronik, Y. M.; Deperasińska, I.; Gryko, D. T. 'How a Small Structural Difference Can Turn Optical Properties of π-Extended Coumarins Upside Down: The Role of Non-Innocent Saturated Rings' *Chem. Eur. J*. **2016**, *22*, 15380-15388.
219. Krzeszewski, M.; Świder, P.; Dobrzycki, Ł.; Cyrański, M. K.; Danikiewicz, W.; Gryko, D. T. 'The role of steric hindrance in intramolecular oxidative aromatic coupling of pyrrolo[3,2-*b*]pyrroles' *Chem. Commun*. **2016**, *52*, 11539-11542.
220. Purc, A.; Espinoza, E. M.; Nazir, R.; Romero, J. J.; Skonieczny, K.; Jeżewski, A.; Larsen, J. M.; Gryko, D. T.; Vullev, V. I., 'Gating that Suppresses Charge Recombination – the Role of Mono-*N*-Arylated Diketopyrrolopyrrole', *J. Am. Chem. Soc*. **2016**, *138*, 12826-12832.
221. Krzeszewski, M.; Kodama, T.; Espinoza, E. M.; Vullev, V. I.; Kubo, T.; Gryko D. T., 'Non-planar butterfly-shaped π-expanded pyrrolopyrroles', *Chem. Eur. J*. **2016**, *22*, 16478-16488.
222. Nowak-Król, A.; Fourie, E.; Joubert, C.; Gryko, D.; Gryko, D. T.; Swarts, J. C., 'Stable, low-melting *trans*-A_2B-corroles', *J. Porphyrins Phthalocyanines*, **2016**, *20*, 1244-1255.
223. Nazir, R.; Stasyuk, A. J.; Gryko, D. T., 'Vertically π-Expanded Coumarins – the Synthesis and Optical Properties', *J. Org. Chem*. **2016**, *81*, 11104-11114.
224. Dereka, B.; Rosspeintner, A.; Krzeszewski, M.; Gryko, D. T.; Vauthey, E. 'Symmetry-Breaking Charge Transfer and Hydrogen Bonding: Toward Asymmetrical Photochemistry' *Angew. Chem. Int. Ed*. **2016**, *55*, 15624-15628.
225. Orłowski, R.; Gryko, D.; Gryko, D. T. 'Synthesis of Corroles and their Heteroanalogs', *Chem. Rev*. **2017**, *117*, 3102-3137.
226. Grzybowski, M.; Glodkowska-Mrowka, E.; Clermont, G.; Blanchard-Desce, M.; Gryko, D. T., 'The synthesis and optical prperties of water soluble diketopyrropyrroles', *Chem. Heterocycl. Compd.* **2017**, *53*, 72. [*Khim. Geterotsikl. Soedin.* **2017**, *53*, 72.]
227. Poronik, Y. M.; Klajn, J.; Borzęcka, W.; Gryko, D. T. 'The Niementowski reaction of anthranilic acid with ethyl acetoacetate revisited: a new access to pyrano[3,2-*c*]quinoline-2,5-dione', *Arkivoc*, **2017**, *ii*, 7-11.

228. Purc, A.; Koszarna, B.; Iachina, I.; Friese, D. H.; Tasior, M.; Sobczyk, K.; Pędziński, T.; Brewer J.; Gryko, D. T. 'The impact of interplay between electronic and steric effects on the synthesis and the linear and non-linear optical properties of diketopyrrolopyrroles bearing benzofuran moieties', *Org. Chem. Front*. **2017**, ***4,*** **724-736**.
229. Poronik, Y. M.; Mazur, L. M.; Samoć, M.; Jacquemin, D.; Gryko D. T. '2,5-Bis(azulenyl)pyrrolo[3,2-*b*]pyrroles – the key influence of the linkage position on the linear and non-linear optical properties', *J. Mater. Chem. C* **2017**, *5*, **2620-2628**.
230. Vakuliuk, O.; Purc, A.; Clermont, G.; Blanchard-Desce, M.; Gryko, D. T. 'The Impact of the Interplay between Steric and Electronic Effects on the Synthesis and Optical Properties of Diketopyrrolopyrroles Bearing Pyridine Moieties', *ChemPhotoChem*, **2017**, *1*, 243-252.
231. Santra, M.; Jun, Y. W.; Bae, J.; Sarkar, S.; Choi, W.; Gryko, D. T.; Ahn, K. H. 'Water-Soluble Pyrrolo[3,2-*b*]pyrroles: Synthesis, Luminescence and Two-Photon Cellular Imaging Properties', *Asian J. Org. Chem*. **2017**, *6*, 278-281.
232. Łukasiewicz, Ł. G.; Ryu, H. G.; Mikhaylov, A.; Azarias, C.; Banasiewicz, M.; Kozankiewicz, B.; Ahn, K. H.; Jacquemin, D.; Rebane, A.; Gryko, D. T. 'Symmetry Breaking in Pyrrolo[3,2-*b*]pyrroles: Synthesis, Solvatofluorochromism and Two-photon Absorption', *Chem. Asian J*. **2017**, *12*, 1736-1748.
233. Łukasz Kielesiński, Olaf Morawski, Łukasz Dobrzycki, Andrzej L. Sobolewski and Daniel T. Gryko The Coumarin-Dimer Spring – The Struggle Between Charge Transfer and Steric Interactions, *Chem. Eur. J*. **2017**, *23*, 9174-9184.
234. Orłowski, R.; Tasior, M.; Staszewska-Krajewska, O.; Dobrzycki, Ł.; Schilf, W.; Ventura, B.; Cyrański, M. K.; Gryko, D. T. 'Hydrogen Bond Involving Cavity NH Protons Drives Supramolecular Oligomerization of Amido-Corroles', *Chem. Eur. J.* **2017**, *23*, 10195-10204.
235. Sadowski, B.; Kita, H.; Grzybowski, M.; Kamada, K.; Gryko, D. T. 'π-Expanded Dipyrrolonaphthyridinediones with Large Two-Photon Absorption Cross-Section Values', *J. Org. Chem*. **2017**, *82*, 7254−7264.
236. Krzeszewski, M.; Gryko, D.; Gryko, D. T. 'The Tetraarylpyrrolo[3,2-*b*]pyrroles - From Serendipitous Discovery to Promising Heterocyclic Optoelectronic Materials', *Acc. Chem. Res*. **2017**, *50*, 2334−2345.
237. Skonieczny, K.; Jaźwiński, J.; Gryko, D. T. 'The synthesis of imidazo[1,2-*f*]phenanthridines, phenanthro[9,10-*d*]imidazoles and phenanthro[9',10':4,5]imidazo[1,2-*f*]phenanthridines via intramolecular oxidative aromatic coupling', *Synthesis*, **2017,** *49*, 4561-4662.
238. Węcławski, M.; Jakešová, M.; Charyton, M.; Demitri, N.; Koszarna, B.; Oppelt, K.; Sariciftci, S.; Gryko, D. T.; Głowacki, E. D. 'Biscoumarin-containing acenes as stable organic semiconductors for photocatalytic oxygen reduction to hydrogen peroxide', *J. Mat. Chem A*, **2017**, *5*, 20780-20788.
239. Vakuliuk, O.; Ooi, S.; Deperasińska, I.; Staszewska-Krajewska, O.; Banasiewicz, M.; Kozankiewicz, B.; Danylyuk O.; Gryko, D. T. 'Unprecedented rearrangement of diketopyrrolopyrroles leads to structurally unique chromophores', *Chem. Commun*. **2017**, *53*, 11877-11880.
240. Espinoza, E. M.; Larsen-Clinton, J. M.; Krzeszewski, M.; Darabedian, N.; Gryko, D. T.; Vullev, V. I. 'Bioinspired approach toward molecular electrets: synthetic proteome for materials', *Pure Appl. Chem*. **2017**, *89*, 1777-1797.
241. B. Dereka, A. Rosspeintner, R. Stężycki, C. Ruckebusch, D. T. Gryko, E. Vauthey 'Excited-State Symmetry Breaking in a Quadrupolar Molecule Visualized in Time and Space', *J. Phys. Chem. Lett.*, **2017**, *8*, 6029-6034.
242. Sadowski, B.; Rode, M. F.; Gryko, D. T. 'Direct Arylation of Dipyrrolonaphthyridinediones (DPNDs) Leads to Red-Emitting Dyes with Conformational Freedom', *Chem. Eur. J*. **2018**, *24*, 855-864.
243. Tasior, M.; Czichy, M.; Łapkowski, M.; Gryko, D. T. 'Dibenzothienopyrrolo[3,2-*b*]pyrrole: The Missing Member of the Thienoacene Family', *Chem. Asian J*. **2018**, *13*, 449–456.

244. Poronik, Y. M.; Bernas, T.; Wrzosek, A.; Banasiewicz, M.; Szewczyk, A.; Gryko, D. T. 'One-Photon and Two-Photon Mitochondrial Fluorescent Probes Based on a Rhodol Chromophore' *Asian J. Org. Chem*. **2018**, *7*, 411-415.

245. Ryu, H. G.; Mayther, M. F.; Tamayo, J.; Azarias, C.; Espinoza, E. M.; Banasiewicz, M.; Łukasiewicz, Ł. G.; Poronik, Y. M.; Jeżewski, A.; Clark, J.; Derr, J. B.; Ahn, K. H.; Gryko, D. T.; Jacquemin, D.; Vullev, V. I. 'Bidirectional Solvatofluorochromism of a Pyrrolo[3,2-*b*]pyrrole−Diketopyrrolopyrrole Hybrid', *J. Phys. Chem. C*, **2018**, *122*, 13424−13434.

246. Krzeszewski, M.; Sahara, K.; Poronik, Y. M.; Kubo, T.; Gryko, D. T. 'Unforeseen 1,2-Aryl Shift in Tetraarylpyrrolo[3,2-*b*]pyrroles Triggered by Oxidative Aromatic Coupling', *Org. Lett*. **2018**, *20*, 1517-1520.

247. Gutkowski, K.; Azarias, C.; Banasiewicz, M.; Kozankiewicz, B.; Jacquemin, D.; Gryko, D. T. 'Synthesis and Photophysical Properties of *N*-Arylated Diketopyrrolopyrroles', *Eur. J. Org. Chem*. **2018**, 6643-6648.

248. Mishra, S.; Krzeszewski, M.; Pignedoli, C. A.; Ruffieux, P.; Fasel, R.; Gryko, D. T. 'On-surface synthesis of a nitrogen-embedded buckybowl with inverse Stone–Thrower–Wales topology', *Nature Commun*. **2018**, 1714.

249. Sadowski, B.; Hassanein, K.; Ventura, B.; Gryko, D. T. 'Tetraphenylethylenepyrrolo[3,2-*b*]pyrrole Hybrids as Solid-State Emitters: The Role of Substitution Pattern', *Org. Lett*. **2018**, *20*, 3183-3186.

250. Kielesiński, Ł.; Morawski, O.; Dobrzycki, Ł.; Sobolewski, A. J.; Gryko, D. T. 'Effect of conformational flexibility on photophysics of bis-coumarins', *Phys. Chem. Phys. Chem.* **2018**, *20*, 14491-14503.

251. Krzeszewski, M.; Espinoza, E. M.; Červinka, C.; Derr, J. B.; Clark, J. A.; Borchardt, D.; Beran, G. J. O.; Gryko, D. T.; Vullev V. I. 'Dipole Effects on Charge Transfer are Enormous' *Angew. Chem. Int. Ed*. **2018**, *57*, 12365-12369.

252. Tasior, M.; Hassanein, K.; Mazur, L. M.; Sakellari, I.; Gray, D.; Farsari, M.; Samoć, M.; Santoro, F.; Ventura, B.; Gryko, D. T. 'The role of intramolecular charge transfer and symmetry breaking in the photophysics of pyrrolo[3,2-*b*]pyrrole-dione', *Phys. Chem. Chem. Phys*. **2018**, *20*, 22260-22271.

253. Stężycki, R.; Reger, D.; Hoelzel, H.; Jux, N.; Gryko, D. T. **'**Synthesis and Photophysical Properties of Hexaphenylbenzene-pyrrolo[3,2-*b*]pyrroles', *Synlett*, **2018**, *29*, 2529-2534.

254. Sadowski, B.; Loebnitz, M.; Dombrowski, D. M.; Friese, D. H.; Gryko, D. T. **'**Electron-Rich Dipyrrolonaphthyridinediones: Synthesis and Optical Properties', *J. Org. Chem.* **2018**, *83*, 11645-11653.

255. Sadowski, B.; Su, S.-H.; Lin, T.-C.; Lohrey, T. D.; Deperasińska, I.; Chou, P.-T.; Gryko, D. T. 'The influence of tetraphenylethylene moieties on the emissive properties of dipyrrolonaphthyridinediones' *J. Mat. Chem. C*, **2018**, *6*, 12306-12313.

256. Kutniewska, S. E.; Jarzembska, K. N.; Kamiński, R.; Stasyuk, A. J.; Gryko, D. T.; Cyrański, M. K. *Acta Cryst*. **2018**, *B74*, 725-737.

257. Hsu, C.-S.; Węcławski, M. K.; Koszarna, B.; Gryko, D. T.; Chen, H. M. 'π-Conjugated Organic/Inorganic Hybrid Photoanodes: Investigation of the Photochemical Behavior Through *in-situ* X-ray Absorption Spectroscopy', *Chem. Eur. J*. **2018**, *24*, 18419-18423.

258. Hooper, R. W.; Zhang, A.; Koszelewski, D.; Lewtak, J. P.; Koszarna, B.; Levy, C. J.; Gryko, D. T.; Stillman, M. J. 'Differential quenching of the angular momentum of the B and Q bands of a porphyrin as a result of extended ring π-conjugation', *J. Porphyrins Phthalocyanines*, **2018**, *22*, 1111-1128.

259. Tasior, M.; Clermont, G.; Blanchard-Desce, M.; Jacquemin, D.; Gryko, D. T. 'Synthesis of Bis(arylethynyl)pyrrolo[3,2-*b*]pyrroles and an Effect of Intramolecular Charge-transfer on Their Photophysical Behavior', *Chem. Eur. J*. **2019**, *25*, 598-608.

260. Węcławski, M. K.; Deperasińska, I.; Banasiewicz, M.; Young, D. C.; Leniak, A.; Gryko, D. T. 'Building Molecular Complexity from Quinizarin; Conjoined Coumarins and Coronene Analogs' *Chem. Asian J*. **2019**, *14*, 1763-1770.

261. Kielesiński, K.; Morawski, O. W.; Sobolewski, A. L.; Gryko, D. T. 'The synthesis and photophysical properties of tris-coumarins', *Phys. Chem. Chem. Phys*. **2019**, *21*, 8314-8325.