



## ◀ CURRICULUM VITAE ▶

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### EDUCATION

1994 – 1998: **Ph.D.** in Physical Organic Chemistry at the University of Crete (Greece) under the supervision of Prof. Michael Orfanopoulos, thesis title – Mechanistic comparison of the electrophilic additions of C<sub>60</sub>, <sup>1</sup>O<sub>2</sub>, TCNE and RTAD to unsaturated substrates.

1989 – 1993: **B.Sc.** in Chemistry, at the University of Crete (Greece). Grade 8.6/10 - Highest grade awarded across the entire School of Natural Sciences.

### POSITIONS HELD – EXPERIENCE

Aug 2013 – Current: Professor at the University of Crete

Aug 2008 – Jul 2013: Associate Professor at the University of Crete.

Sep 2002 – Aug 2008: Assistant Professor at the University of Crete.

Jan 1999 – Sep 2002: Post-doctoral fellow at the Scripps Research Institute (San Diego, U.S.A.) in the group of Prof. K. C. Nicolaou. Research undertaken in the field of natural product synthesis.

Jun 1997 – Sep 1997: Fellowship for study at the University of California, Los Angeles during graduate studies. Collaboration with Pr. C. S. Foote in the field of fullerene and singlet oxygen chemistry.

## SCHOLARSHIPS – AWARDS

2011 – 2017: **ERC-Starting Grant "Ideas"** program titled: “Advancing the green chemistry of singlet oxygen and applying it to synthetic challenges”.

2015: **Fellow of the Royal Society of Chemistry (FRSC).**

2014: **Hildegard, widow of Leonidas Zervas Award** of the Academy of Athens for groundbreaking research in organic chemistry.

2012: **Aristeia Award** of the Greek Ministry of Education for excellence in research.

1995 – 1998: Three-year **Graduate Fellowship** from Greek Secretariat of Research and Technology, awarded competitively.

1993: Bachelor's Degree **Valedictorian** for School of Natural Sciences.

1990, 1992 and 1993: Greek National Scholarships Foundation (IKY) **Fellowship** for undergraduate studies.

1992: V. Xanthopoulos and S. Pneumaticos undergraduate **award**.

## RESEARCH INTERESTS

- [1] Total syntheses of bioactive natural products that possess complex architectures.
- [2] The development and application of sustainable methodologies and strategies for synthesis.
- [3] Development of sustainable synthetic technologies based on singlet oxygen chemistry.
- [4] Development and application of continuous flow reactors (CFR) for biphasic gas-liquid photochemical reactions in micro droplets (nebula).

## FUNDING PROCURED

2003 – 2007: Scientist-in-charge of a 9-member working group of European academics funded by the **COST D28/007** program of the European Science Foundation. Funds available for student exchange and conference organization. Proposal title: “The development of new and enabling technologies for application in the synthesis of bioactive molecules (designed and natural products)”.

- 2004–2007: Scientist-in-charge of a grant co-funded, through the **Pythagoras 1** program, by the Greek Ministry of Education and the European Union. Proposal title: “Total synthesis and biological evaluation of natural products with anticancer and anti-HIV activity”.
- 2005–2007: Co-scientist-in-charge of a grant co-funded, through the **Pythagoras 2** program, by the Greek Ministry of Education and the European Union. Proposal title: “Biomimetic cyclizations of terpenoids by encapsulation in Zeolite Y”.
- 2005 – 2007: Scientist-in-charge of a **Marie-Curie** IntraEuropean Fellowship funded by the European Union under the 6<sup>th</sup> European Community Framework Program. Proposal title: “New and environmentally friendly methods for making compounds with medicinal importance: Novel singlet oxygen chemistry combined with cascade reactions for synthesis of bioactive natural products”.
- 2006 – 2009: **Matching funds** for the above mentioned Marie-Curie program from the Greek Secretariat of Research and Technology.
- 2006 – 2009: Participant in a Greek-Cypriot **Interreg. IIIA** collaborative program funded from EU Regional Development Funds. The project title: “Education and research in nanomaterials and nanotechnology subjects: Design, development and applications”.
- 2009 – 2013: National representative and member of the management committee **COST CM0804** titled: “Chemical biology with natural products”. Funds available for student exchange and conference organization.
- 2010 - 2013: Scientist-in-charge of a grant co-funded, through the **Heracleitus II** program, by the Greek Ministry of Education and the European Union. Proposal title: “Synthesis of biologically active natural products”.
- 2011 – 2017: Scientist-in-charge of an **ERC-Starting (Consolidating) Grant** titled: “Advancing the green chemistry of singlet oxygen and applying it to synthetic challenges”.
- 2016 – now: **Reward funds** for the above mentioned ERC-funded program from the Greek Secretariat of Research and Technology.
- 2013 – 2016: Participant in a multipartner Initial Training Network (**Marie-Curie ITN**) titled: “The singlet oxygen strategy: Sustainable oxidation procedures for application in material science, synthesis, wastewater treatment, diagnostics and therapeutics”
- 2016 – now: **Reward funds** for the above mentioned Marie-Curie program from the Greek Secretariat of Research and Technology.

2013 – 2015: Participant in a multipartner "**Synergasia**" program of the Greek Secretariat of Research and Technology titled: "Exploiting molecular pathways of apoptotic cell death for the rational design of therapeutic strategies for colon cancer".

2018 – 2019: Scientist-in-charge of an **ERC-Proof of Concept (PoC) Grant** titled: "Making it happen – Scalable biphasic reactions using a nebulizer-driven continuous flow reactor".

## PUBLICATIONS

1. **Vassilikogiannakis, G.**; Orfanopoulos, M. *Tetrahedron Lett.* **1996**, *37*, 3057 – 3078. "Remote  $\epsilon$ -secondary isotope effect in the reaction of tetracyanoethylene with 2,5-dimethyl-2,4-hexadiene. A step-wise mechanism".
2. **Vassilikogiannakis, G.**; Stratakis, M.; Karabatsos, G. J.; Orfanopoulos, M. *J. Heterocyclic Chem.* **1996**, *33*, 993 – 995. "Mechanistic studies in the reaction of 4-phenyl-1,2,4-triazoline-3,5-dione (PTAD) with 2,5-dimethyl-2,4-hexadiene".
3. **Vassilikogiannakis, G.**; Orfanopoulos, M. *Tetrahedron Lett.* **1997**, *38*, 4323 – 4326. "[2 + 2] photocycloadditions of *cis/trans*-4-propenylanisole to C<sub>60</sub>. A step-wise mechanism".
4. **Vassilikogiannakis, G.**; Orfanopoulos, M. *J. Am. Chem. Soc.* **1997**, *119*, 7394 – 7395. "Stereochemistry and isotope effects of the [2 + 2] photocycloadditions of arylalkenes to C<sub>60</sub>".
5. Stratakis, M.; **Vassilikogiannakis, G.**; Orfanopoulos, M. *Tetrahedron Lett.* **1998**, *39*, 2393 – 2396. "Diastereoselective ene reactions of triazolinediones with chiral allylic alcohols. Evidence for a hydroxyl-enophile steering effect".
6. **Vassilikogiannakis, G.**; Stratakis M; Orfanopoulos, M. *J. Org. Chem.* **1998**, *63*, 6390 – 6393. "Primary and secondary isotope effects in the photooxidation of 2,5-dimethyl-2,4-hexadiene. Elucidation of the reaction energy profile".
7. **Vassilikogiannakis, G.**; Chronakis, N.; Orfanopoulos, M. *J. Am. Chem. Soc.* **1998**, *120*, 9911 – 9920. "A new [2 + 2] functionalization of C<sub>60</sub> with alkyl substituted 1,3-butadienes: A mechanistic approach. Stereochemistry and isotope effects".
8. **Vassilikogiannakis, G.**; Orfanopoulos, M. *Tetrahedron Lett.* **1998**, *39*, 8891 – 8894. "A mechanistic comparison between [2 + 2] and [4 + 2] cycloadditions of tetracyanoethylene to 2,7-dimethyl-2,*trans*-4,6-octatriene. A very remote secondary H/D isotope effect".
9. **Vassilikogiannakis, G.**; Stratakis, M.; Orfanopoulos, M.; Foote, C. S. *J. Org. Chem.* **1999**, *64*, 4130 – 4139. "Stereochemistry in the ene reaction of singlet oxygen and triazolinediones with allylic alcohols. A mechanistic comparison".

10. **Vassilikogiannakis, G.**; Orfanopoulos, M. *J. Org. Chem.* **1999**, *64*, 3392 – 3393. Regio- and stereoselectivity of the [2 + 2] photocycloaddition of acyclic enones to C<sub>60</sub>”.
11. K. C. Nicolaou; Jautelat, R.; **Vassilikogiannakis, G.**; Baran, P. S.; Simonsen, K. B. *Chemistry a European Journal* **1999**, *5*, 3651 – 3665. “Studies towards Trichodimerol: Novel cascade reactions and polycyclic frameworks”.
12. K. C. Nicolaou; Simonsen, K. B.; **Vassilikogiannakis, G.**; Baran, P. S.; Vidali, V. P.; Pitsinos, E. N.; Couladouros, E. A. *Angewandte Chem. Int. Ed.*, **1999**, *38*, 3555 – 3559. “Biomimetic explorations towards the bisorbicillinoids: Total synthesis of bisorbicillinol, bisorbibutenolide and trichodimerol”.
13. Hatzimarinaki, M.; **Vassilikogiannakis, G.**; Orfanopoulos, M. *Tetrahedron Lett.* **2000**, *41*, 4667 – 4670. “Stereochemistry and isotope effects on the [2 + 2] photocycloaddition of  $\beta,\beta$ -dimethyl-*p*-methoxystyrene to C<sub>60</sub>. The nature of the transition state structures”.
14. **Vassilikogiannakis, G.**; Stratakis, M.; Orfanopoulos, M. *Organic Lett.* **2000**, *2*, 2245 – 2248. “Isotope effects and *syn* selectivity in the ene reaction of triazolinediones with conjugated enones: Aziridinium imide or an open intermediate mechanism?”.
15. **Vassilikogiannakis, G.**; Elemes, Y.; Orfanopoulos, M. *J. Am. Chem. Soc.* **2000**, *122*, 9540 – 9541. “Stereochemistry of triazolinedione-alkene ene reaction: A stereospecific suprafacial transformation”.
16. **Vassilikogiannakis, G.**; Hatzimarinaki M; Orfanopoulos, M. *J. Org. Chem.* **2000**, *65*, 8180 – 8187. “Mechanism of the [2 + 2] photocycloaddition of fullerene C<sub>60</sub> with styrenes”.
17. Greer, A.; **Vassilikogiannakis, G.**; Lee, K. C.; Koffas, T. S.; Nahm, K.; Foote, C. S. *J. Org. Chem.* **2000**, *65*, 6876 – 6878. “Reaction of singlet oxygen with *trans*-4-propenylanisole. Formation of [2 + 2] products with added acid”.
18. K. C. Nicolaou; **Vassilikogiannakis, G.**; Simonsen, K. B.; Baran P. S.; Zhong, Y. L.; Vidali, V. P.; Pitsinos, E. N.; Couladouros, E. A. *J. Am. Chem. Soc.* **2000**, *122*, 3071 – 3079. “Biomimetic total synthesis of Bisorbicillinol, Bisorbibutenolide, Trichodimerol and designed analogs of the Bisorbicillinoids”.
19. K.C. Nicolaou; **Vassilikogiannakis, G.**; Kranich, R.; Baran, P. S.; Zhong Y-L.; Natarajan S. *Organic Lett.* **2000**, *2*, 1895 – 1898. “New synthetic technology for the mild and selective one-carbon homologation of hindered aldehydes in the presence of ketones”.
20. K. C. Nicolaou; **Vassilikogiannakis, G.**; Magerlein, W.; Kranich, R. *Angewandte Chem. Int. Ed.* **2001**, *40*, 2482 – 2486. “Total synthesis of colombiasin A”.
21. K. C. Nicolaou; **Vassilikogiannakis, G.**; Magerlein, W.; Kranich, R. *Chemistry a European Journal* **2001**, *7*, 5359 – 5371. “Total synthesis of colombiasin A and determination of its absolute configuration”.

22. K. C. Nicolaou; Vega, J. A.; **Vassilikogiannakis, G.** *Angewandte Chem. Int. Ed.* **2001**, *40*, 4441 – 4445. “*cis*-3,4-dichlorocyclobutene as a versatile synthon in organic synthesis. Rapid entry into complex polycyclic systems via remarkably stereospecific reactions”.
23. **Vassilikogiannakis, G.**; Stratakis, M.; Orfanopoulos, M. *Arkivoc* **2002**, *xiii*, 9 – 16. “Primary and secondary H/D isotope effects in the addition of triazolinedione to 2,5-dimethyl-2,4-hexadiene. Mechanistic insights into the reaction pathways”.
24. K. C. Nicolaou; Snyder, S. A.; Montagnon T.; **Vassilikogiannakis, G.** REVIEW ARTICLE, *Angewandte Chem. Int. Ed.* **2002**, *41*, 1668 – 1698. “The Diels-Alder reaction in total synthesis”.
25. K. C. Nicolaou; **Vassilikogiannakis, G.**; Montagnon, T. *Angewandte Chem. Int. Ed.* **2002**, *41*, 3276 – 3281. “The total synthesis of coleophomones B and C”.
26. K. C. Nicolaou; Montagnon, T.; **Vassilikogiannakis, G.**; *Chem. Commun.* **2002**, 2478 – 2479. “Total synthesis of coleophomones D”.
27. K. C. Nicolaou; Montagnon, T.; **Vassilikogiannakis, G.** *BIO* **2003**, *5*, 22 – 30. “Natural products and total synthesis for the development of cancer chemotherapy”.

### **Publications after appointment to the University of Crete**

28. **Vassilikogiannakis, G.**; Stratakis M. *Angewandte Chem. Int. Ed.* **2003**, *42*, 5465 – 5468. “Biomimetic total synthesis of Litseaverticillols A, C, D, F, and G: Singlet-oxygen initiated cascades”.
29. **Vassilikogiannakis, G.**; Margaros, I.; Tofi, M. *Organic Lett.* **2004**, *2*, 205 – 208. “Olefin metathesis: Remote substituents governing the stereoselectivity of 11-membered-ring formation”.
30. **Vassilikogiannakis, G.**; Margaros, I.; Montagnon, T. *Organic Lett.* **2004**, *6*, 2039 – 2042. “Biomimetic total synthesis of Litseaverticillols B, E, I, and J and structural reassignment of Litseaverticillol E”.
31. K. C. Nicolaou; Montagnon, T.; **Vassilikogiannakis, G.**; Mathison C. *J. Am. Chem. Soc.* **2005**, *127*, 8872 – 8888. “The total syntheses of Coleophomones B, C and D”.
32. Sofikiti, N.; Tofi, M.; Montagnon, T.; **Vassilikogiannakis G.**; Stratakis M. *Organic Lett.* **2005**, *7*, 2357 – 2359. “Synthesis of the spirocyclic core of the Prunolides using a singlet oxygen-mediated sequence”.
33. **Vassilikogiannakis, G.**; Margaros, I.; Montagnon, T.; Stratakis, M. *Chemistry a European Journal* **2005**, *11*, 5899 – 5907. “Illustrating the power of singlet oxygen chemistry in a synthetic context: Biomimetic syntheses of litseaverticillols A – G, I and J and the structural reassignment of Litseaverticillol E”.
34. Tofi, M.; Georgiou, T.; Montagnon, T.; **Vassilikogiannakis G.** *Organic Lett.* **2005**, *7*, 3347 – 3350. “Regioselective ortho lithiation of 3-aryl and 3-styryl furans”.

35. Margaros, I.; Montagnon, T.; Tofi, M.; Pavlakos, E.; **Vassilikogiannakis, G.** *Tetrahedron*, **2006**, *62*, 5308 – 5317. “The power of singlet oxygen chemistry in biomimetic syntheses”.
36. Georgiou, T.; Tofi, M.; Montagnon, T.; **Vassilikogiannakis, G.** *Organic Lett.* **2006**, *8*, 1945 – 1948. “A versatile and general one-pot method for synthesizing bis-spiroketal motifs”.
37. Tofi, M.; Montagnon, T.; Georgiou, T.; **Vassilikogiannakis, G.** *Org. Biomol. Chem.* **2007**, *5*, 772 – 777. “Using singlet oxygen to synthesize a [6,6,5]-bis-spiroketal in one-pot from a simple 2,5-disubstituted furan”. [HIGHLIGHTED as front cover].
38. Margaros, I.; **Vassilikogiannakis, G.** *J. Org. Chem.* **2007**, *72*, 4826 – 4831. ”Synthesis of Chinensines A – E”.
39. Margaros, I.; Montagnon, T.; **Vassilikogiannakis, G.** *Organic Lett.* **2007**, *9*, 5585 – 5588. ”Spiroperoxy lactones from furans in one pot: Synthesis of (+)-Premnalane A”.
40. Margaros, I.; **Vassilikogiannakis, G.** *J. Org. Chem.* **2008**, *73*, 2021 – 2023. “Synthesis of (+)-Zerumin B using a regioselective singlet oxygen furan oxidation”.
41. Montagnon, T.; Tofi, M.; **Vassilikogiannakis, G.** *Acc. Chem. Res.* **2008**, *41*, 1001 – 1011. “Using singlet oxygen to synthesize polyoxygenated natural products from furans”.
42. Alberti, M.; **Vassilikogiannakis, G.**; Orfanopoulos M. *Organic Lett.* **2008**, *10*, 3997 – 4000. “Stereochemistry of the singlet oxygenation of simple alkenes: A stereospecific transformation”.
43. Tofi, M.; Koltzida, K.; **Vassilikogiannakis, G.** *Organic Lett.* **2009**, *11*, 313 – 316. “Singlet-oxygen-mediated one-pot synthesis of 3-keto-tetrahydrofurans from 2-( $\beta$ -hydroxyalkyl) furans”.
44. Pavlakos, E.; Georgiou, T.; Tofi, M.; Montagnon, T.; **Vassilikogiannakis, G.** *Organic Lett.* **2009**, *11*, 4556 – 4559. “ $\gamma$ -Spiroketal  $\gamma$ -lactones from 2-( $\gamma$ -hydroxyalkyl)furans: Syntheses of *epi*-pyrenolides D and crassalactone D”.
45. **Vassilikogiannakis, G.**; Alexopoulou, I.; Tofi, M.; Montagnon, T. *Chem. Commun.* **2011**, *47*, 259 – 261. “Singlet oxygen initiated cascade transformation of a simple difuran into the key ABC-ring motif of the pectenotoxins”. Selected for emerging investigators issue.
46. Montagnon, T.; Noutsias, D.; Alexopoulou, I.; Tofi, M.; **Vassilikogiannakis, G.** *Org. Biomol. Chem.* **2011**, *9*, 2031 – 2039. “The green oxidations of furans-initiated by molecular oxygen-that give key natural product motifs”.
47. Noutsias, D.; Kouridaki, A.; **Vassilikogiannakis, G.** *Organic Lett.* **2011**, *13*, 1166 – 1169. “Scope and limitations of the photooxidations of 2-( $\alpha$ -hydroxyalkyl)furans: Synthesis of 2-hydroxy-*exo*-brevicomine”.

48. Noutsias, D.; Alexopoulou, I.; Montagnon, T.; **Vassilikogiannakis, G.** *Green Chem.* **2012**, *14*, 601 – 604. “Using water, light, air and spirulina to access a wide variety of polyoxygenated compounds”.
49. Kouridaki, A.; Montagnon, T.; Tofi, M.; **Vassilikogiannakis, G.** *Organic Lett.* **2012**, *14*, 2374 – 2377. “Photooxidations of 2-( $\gamma,\epsilon$ -dihydroxyalkyl)furans in water: Synthesis of DE-bicycles of the Pectenotoxins”.
50. Noutsias, D.; **Vassilikogiannakis, G.** *Organic Lett.* **2012**, *14*, 3565 – 3567. “First total synthesis of paracaseolide A”. [Highlighted in *SYNFACTS* **2012**, *8(10)*, 1060].
51. Kalaitzakis, D.; Montagnon, T.; Alexopoulou, I.; **Vassilikogiannakis, G.** *Angewandte Chem. Int. Ed.* **2012**, *51*, 8868 – 8871. “A versatile synthesis of Myers' bicyclic lactams from furans: Singlet-oxygen-initiated reaction cascade”.
52. Kouridaki, A.; Montagnon, T.; Kalaitzakis, D.; **Vassilikogiannakis, G.** *Org. Biomol. Chem.* **2013**, *11*, 537 – 541. “Using singlet oxygen to synthesise the CDE-ring system of the pectenotoxins”.
53. Kalaitzakis, D.; Montagnon, T.; Antonatou, E.; Bardaji, N.; **Vassilikogiannakis, G.** *Chemistry a European Journal* **2013**, *19*, 10119 – 10123. “From simple furans to complex nitrogen-bearing aromatic polycycles by means of a flexible and general reaction sequence initiated by singlet oxygen” [HIGHLIGHTED in *Chemistry Views*, [http://www.chemistryviews.org/details/ezone/4963871/Nitrogen-Containing\\_Polycycles\\_from\\_Furans.html](http://www.chemistryviews.org/details/ezone/4963871/Nitrogen-Containing_Polycycles_from_Furans.html)].
54. Kalaitzakis, D.; Montagnon, T.; Antonatou, E.; **Vassilikogiannakis, G.** *Organic Lett.* **2013**, *15*, 3714 – 3717. "One-pot synthesis of the tetracyclic framework of the aromatic *erythrina* alkaloids from simple furans".
55. Kalaitzakis, D.; Antonatou E.; **Vassilikogiannakis, G.** *Chem. Commun.* **2014**, *50*, 400 – 402. "One-pot synthesis of 1-azaspiro frameworks initiated by photooxidation of simple furans". [HIGHLIGHTED as front cover].
56. Triantafyllakis, M.; Tofi, M.; Montagnon, T.; Kouridaki, A.; **Vassilikogiannakis, G.** *Organic Lett.* **2014**, *16*, 3150 – 3153. "Singlet oxygen-mediated synthesis of *bis*-spiroketals found in azaspiracids".
57. Kalaitzakis, D.; Triantafyllakis, M.; Alexopoulou, I.; Sofiadis, M.; **Vassilikogiannakis, G.** *Angewandte Chem. Int. Ed.* **2014**, *53*, 13201 – 13205. "One-pot transformation of simple furans into 4-hydroxy-2-cyclopentenones in water". [HIGHLIGHTED in HOT TOPICS in sustainable chemistry by WILEY-VCH, <http://www.wiley-vch.de/util/hottopics/suschem/>].
58. Montagnon, T.; Kalaitzakis, D.; Triantafyllakis, M.; Stratakis, M.; **Vassilikogiannakis, G.** *Chem. Commun.* **2014**, *50*, 15480 – 15498. "Furans and singlet oxygen – why there is more to come from this powerful partnership". [FEATURE ARTICLE, HIGHLIGHTED as front cover].



59. Vasilikogiannaki, E.; Titilas, I.; **Vassilikogiannakis G.**; Stratakis, M. *Chem. Commun.* **2015**, *51*, 2384 – 2387. "cis-Semihydrogenation of alkynes with amine borane complexes catalyzed by gold nanoparticles under mild conditions".
60. Kalaitzakis, D.; Montagnon, T.; Ioannou, G. I.; Antonatou, E.; **Vassilikogiannakis, G.** *Arkivoc* **2015**, (iii) 154 – 166. "Singlet oxygen-mediated transformation of furans into aromatic nitrogen-containing polycycles in water".
61. Kalaitzakis, D.; Kouridaki, A.; Noutsias, D.; Montagnon, T.; **Vassilikogiannakis, G.** *Angewandte Chem. Int. Ed.* **2015**, *54*, 6283 – 6287. "Methylene blue as photosensitizer and redox agent: Synthesis of 5-hydroxy-1H-pyrrol-2(5H)-ones from furans". [HIGHLIGHTED in HOT TOPICS in sustainable chemistry by WILEY-VCH].
62. Kalaitzakis, D.; Noutsias, D.; **Vassilikogiannakis, G.** *Org. Lett.* **2015**, *17*, 3596 – 3599. "First total synthesis of pandamarine". [Highlighted and Front Cover in *SYNFACTS* **2015**, *11*, 1013].
63. Kouridaki, A.; Sofiadis, M.; Montagnon, T.; **Vassilikogiannakis, G.** *Eur. J. Org. Chem.* **2015**, *33*, 7240 – 7243. "Pectenotoxin's ABCDE-ring system: A complex target to test the potential of singlet oxygen super cascades as tools for synthesis".
64. Kalaitzakis, D.; Triantafyllakis, M.; Sofiadis, M.; Noutsias, D.; **Vassilikogiannakis, G.** *Angewandte Chem. Int. Ed.* **2016**, *55*, 4605 – 4609. "Photooxygenation of furylalkylamines: An easy access to pyrrolizidine and indolizidine scaffolds". [Highlighted in *SYNFACTS* **2016**, *12*, 995].
65. Kotzabasaki, V.; **Vassilikogiannakis, G.**; Stratakis, M. *J. Org. Chem.* **2016**, *81*, 4406 – 4411. "Regiocontrolled synthesis of  $\gamma$ -hydroxybutenolides via singlet oxygen-mediated oxidation of 2-thiophenyl furans".
66. Antonatou, E.; Hoogewijs, K.; Kalaitzakis, D.; Baudot, A.; **Vassilikogiannakis, G.**; Madder, A. *Chem. Eur. J.* **2016**, *22*, 8457 – 8461. "Singlet-oxygen-induced furan oxidation for site-specific and chemoselective peptide ligation".
67. Ioannou, G. I.; Kalaitzakis, D.; **Vassilikogiannakis, G.** *Eur. J. Org. Chem.* **2016**, 3304 – 3306. "Singlet oxygen initiated tandem transformation of 2-hexylfuran to the natural alkaloids glochidine and glochidicine".
68. Montagnon, T.; Kalaitzakis, D.; Sofiadis, M.; **Vassilikogiannakis, G.** *Org. Biomol. Chem.* **2016**, *14*, 8636 – 8640. "Chemoselective photooxygenations of furans bearing unprotected amines: Their use in alkaloid synthesis".
69. Kotzabasaki, V.; **Vassilikogiannakis, G.**; Stratakis, M. *Org. Lett.* **2016**, *18*, 4982 – 4985. "Total synthesis and structural revision of (+)-yaoshanolid B". [Highlighted in ORGANIC CHEMISTRY HIGHLIGHTS] <http://www.organic-chemistry.org/Highlights/2017/21August.shtm>

70. Ioannou, G. I.; Montagnon, T.; Kalaitzakis, D.; Pergantis, S. A.; **Vassilikogiannakis, G.** *ChemPhotoChem* **2017**, *1*, 173 – 177. "A novel nebulizer-based continuous flow reactor: Introducing the use of pneumatically generated aerosols for highly productive photooxidations".
71. Kalaitzakis, D.; Triantafyllakis, M.; Ioannou, G. I.; **Vassilikogiannakis, G.** *Angewandte Chem. Int. Ed.* **2017**, *56*, 4020 – 4023. "One-pot transformation of simple furans into octahydroindole scaffolds". [Highlighted in *Org. Process Res. Dev.* **2017**, *21*, 675].
72. Ioannou, G. I.; Montagnon, T.; Kalaitzakis, D.; Pergantis, S. A.; **Vassilikogiannakis, G.** *Org. Biomol. Chem.* **2017**, *15*, 10151 – 10155. "Synthesis of cyclopent-2-enones from furans using a nebulizer-based continuous flow photoreactor".
73. Kalaitzakis, D.; Sofiadis, M.; Triantafyllakis, M.; Daskalakis, K.; **Vassilikogiannakis, G.** *Org. Lett.* **2018**, *20*, 1146 – 1149. "Asymmetric and site-selective [3 + 2]-annulations for the synthesis of high-value bicyclic lactams". [Highlighted as ACS Editors' Choice]. The Organic Letters team has put together a Virtual Issue featuring the most-read articles (most downloaded) published in **2018** from different countries. This paper is included in the list.
74. Ioannou, G. I.; Montagnon, T.; Kalaitzakis, D.; Pergantis, S. A.; **Vassilikogiannakis, G.** *ChemPhotoChem* **2018**, *2*, 860 – 864. "One-pot synthesis of diverse  $\gamma$ -lactam scaffolds facilitated by a nebulizer-based continuous flow photoreactor".
75. Triantafyllakis, M.; Sfakianaki, K.; Kalaitzakis, D.; **Vassilikogiannakis, G.** *Org. Lett.* **2018**, *20*, 3631 – 3634. "The power of triplet and singlet oxygen in synthesis: 2-Oxindoles, 3-hydroxy-2-oxindoles, and isatins from furans".
76. Sofiadis, M.; Sarris, J.; Montagnon, T.; Kalaitzakis, D.; **Vassilikogiannakis, G.** *Eur. J. Org. Chem.* **2018**, 4523 – 4526. "Rapid access to 3-acyl-5-alkoxybutyrolactams using triplet and singlet oxygen".
77. Sofiadis, M.; Kalaitzakis, D.; Sarris, J.; Montagnon, T.; **Vassilikogiannakis, G.** *Angewandte Chem. Int. Ed.* **2019**, *58*, 6742 – 6746. "Vinylogous reactivity of cyclic 2-enones: Organocatalysed asymmetric addition to 2-enals to synthesize fused carbocycles".
78. Kalaitzakis, D.; Daskalakis, K.; Triantafyllakis, M.; Sofiadis, M.; **Vassilikogiannakis, G.** *Org. Lett.* **2019**, *21*, 5467 – 5470. "Singlet-oxygen mediated synthesis of pandanusine A and pandalizine C and structural revision of pandanusine B".
79. Montagnon, T.; Kalaitzakis, D.; Sofiadis, M.; **Vassilikogiannakis, G.** *Org. Biomol. Chem.* **2020**, *18*, 180 – 190. "The reticent tautomer: Exploiting the interesting multisite and multitype reactivity of 4-pyrrolin-2-ones".
80. Kalaitzakis, D.; Sofiadis, M.; Tsopanakis, V.; Montagnon, T.; **Vassilikogiannakis, G.** *Org. Biomol. Chem.* **2020**, *18*, 2817 – 2822. "Merging singlet-oxygen induced furan oxidations with organocatalysis: Synthesis

of enantiopure cyclopentanones and hydrindanes". Featured in **Org. Chem. Highlights: Organocatalyzed Carbocyclic Ring Construction**.

81. **Vassilikogiannakis, G.** *ChemPhotoChem* **2020**, *4*, 385 – 387. "Singlet oxygen and dyes: Synthesis with visible light is where the future lies". Meet the board article.
82. Kalaitzakis, D.; Bosveli, A.; Sfakianaki, K.; Montagnon, T.; **Vassilikogiannakis G.** *Angewandte Chem. Int. Ed.* **2021**, *60*, 4335 – 4341. "Multi-photocatalyst cascades: Merging singlet oxygen photooxygenations with photoredox catalysis for the synthesis of alkaloid frameworks".
83. Geyter, E. D.; Antonatou, E.; Kalaitzakis, D.; Smolen, S.; Iyer, A.; Tack, L.; Ongenaë, E.; **Vassilikogiannakis G.**; Madder, A. *Chem. Sci.* **2021**, *12*, 5246 – 5252. "5-Hydroxy-pyrrolone based building blocks as maleimide alternatives for protein bioconjugation and single-site multi-functionalization".
84. Bosveli, A.; Montagnon, T.; Kalaitzakis, D.; **Vassilikogiannakis, G.** *Org. Biomol. Chem.* **2021**, *19*, 3303 – 3317. "Eosin: a versatile organic dye whose synthetic uses keep expanding".

According to Google Scholar, the above mentioned publications have been cited 5227 times and the h-factor is 38 (20/05/2021).

## BOOK CHAPTERS

**Vassilikogiannakis G.**; Montagnon, T. Book chapter for the *Science of Synthesis*, volume 38, chapter 38.5. Thieme Eds **2008**. "Acyclic Alkyl Peroxides".

## PATENTS

1. BIOCONJUGATION REAGENT AND METHODS. International filing date of 28/02/2020, international application number PCT/EP2020/055287 and international publication number **WO 2020/174086 A2**. Inventors: Madder, A.; Geyter, E.; Antonatou, E.; Smolen, S.; Kalaitzakis, D.; **Vassilikogiannakis, G.**

## EVALUATOR FOR INTERNATIONAL JOURNALS

Angewandte Chemie (*AC*), Journal of the American Chemical Society (*JACS*), Organic Letters (*OL*), Organic and Biomolecular Chemistry (*OBC*), Chemical Reviews, Green Chemistry, Journal of Organic Chemistry (*JOC*), Advanced Synthesis and Catalysis (*ASC*), Tetrahedron Letters (*TL*), Tetrahedron, Photochemistry and Photobiology, Beilstein Journal of Organic Chemistry (*BJOC*), ChemPhotoChem, European Journal of Organic Chemistry (*EurJOC*) etc.

## EDITORIAL/ADVISORY BOARDS

Since August 2012 member of the advisory board of **Organic and Biomolecular Chemistry (OBC)** a journal of the Royal Society of Chemistry (RSC).

Since August 2014 member of the advisory board of **European Journal of Organic Chemistry (EurJOC)** a Wiley journal.

Since June 2016 member of the editorial board of **ChemPhotoChem** a Wiley journal.

## **TEACHING EXPERIENCE**

Since 2002 until the current time, teaching of the following classes: [1] Organic Chemistry I, [2] Organic Chemistry II, [3] Chemistry of Biomolecules, [4] Organic Chemistry (for the Department of Material Science), [5] Organic Synthesis, [6] Strategies in Natural Products' Synthesis, [7] Spectroscopic Structure Elucidation of Organic Compounds, [8] Synthetic Organic Chemistry (postgraduate), [9] Synthetic Methodology and Structure Elucidation (postgraduate), [10] Structure and Stereochemistry (postgraduate).

## **STUDENT SUPERVISION**

- [1] Supervision of 15 completed Diploma Thesis, 14 completed M.Sc. and 8 completed Ph.D..
- [2] Supervision of 6 postgraduate students from other European Universities (3 months each placement).

## CONFERENCES – INVITED LECTURES

1. **Vassilikogiannakis, G.**; Orfanopoulos, M. *16<sup>th</sup> Panhellenic Symposium in Chemistry*, Athens, Hellas, December **1995**. “ $\epsilon$ -secondary kinetic isotope effects in the reaction of TCNE with 2,5-dimethyl-2,4-hexadiene”.
2. **Vassilikogiannakis, G.**; Orfanopoulos, M. *17<sup>th</sup> Panhellenic Symposium in Chemistry*, Patra, Hellas, December **1996**. “Asymmetric induction due to primary kinetic isotope effect in the ene reaction of PTAD with alkenes”.
3. **Vassilikogiannakis, G.**; Orfanopoulos, M. *6<sup>th</sup> European Symposium of Organic Reactivity, ESOR-VI*, Louvain-la-Neuve, Belgium, July **1997**. “Stereochemistry and isotope effects in the C<sub>60</sub>/arylalkenes [2 + 2] cycloaddition”.
4. **Vassilikogiannakis, G.**; Orfanopoulos, M. *1<sup>st</sup> International Conference of the Chemical Societies of the South-East European Countries*, Halkidiki, Hellas, June **1998**. “The regio- and stereoselectivity of the [2 + 2] photocycloaddition of acyclic enones to C<sub>60</sub>”.
5. Orfanopoulos M.; **Vassilikogiannakis, G.** *7<sup>th</sup> European Symposium of Organic Reactivity, ESOR-VII*, Ulm, Germany, August **1999**. “[2 + 2] photocycloadditions of acyclic enones to C<sub>60</sub>. Regio and stereoselectivity”.
6. Greer, A.; **Vassilikogiannakis, G.**; Lee, K-C.; Nahm, K; Foote, C. S. *Book of Abstracts, 217<sup>th</sup> ACS National Meeting*, Anaheim, Calif., March **1999**. “Photooxidation of *trans*-4-propenylanisole. Formation of [2+2] products with added acid”.
7. Orfanopoulos, M.; **Vassilikogiannakis, G.** *15<sup>th</sup> International Conference on Physical Organic Chemistry, will be presented in Goteborg*, Sweden July **2000**. “Stereochemistry of the triazolinediones – alkenes ene reaction: Asymmetric induction due to H/D isotopic competition”.
8. **Vassilikogiannakis, G.**; Montagnon, T.; Nicolaou, K. C. *19<sup>th</sup> Panhellenic Symposium in Chemistry*, Heaklion, Hellas, November **2002**. Total synthesis of coleophomones B and C.
9. **Vassilikogiannakis, G.**; Montagnon, T.; Nicolaou, K. C. *1<sup>st</sup> Cost D28 symposium in natural products as a source for discovery, synthesis, and application of new pharmaceuticals*, Athens December **2002**. “Olefin methathesis at its best. Total syntheses of Coleophomones B, C and D”.
10. **Vassilikogiannakis, G.**; Margaros, I.; Montagnon, T. *3<sup>rd</sup> Cost D28 symposium in natural products as a source for discovery, synthesis, and application of new pharmaceuticals*, Siena, Italy October **2004**. “Biomimetic total synthesis of Litseaverticillols A, B, C, D, E, F, G, I and J and structural reassignment of litseaverticillol E”.

11. Tofi, M.; Georgiou, T.; Montagnon, T.; **Vassilikogiannakis, G.** *20<sup>th</sup> Panhellenic Symposium in Chemistry*, Ioannina, Hellas, September **2005**. “Regioselective ortho lithiation of 3-aryl and 3-styryl furans”.
12. **Vassilikogiannakis, G.**; Tofi, M; Georgiou, T.; Montagnon, T. *4<sup>rd</sup> Cost D28 symposium in natural products as a source for discovery, synthesis, and application of new pharmaceuticals*, Ischia, Italy October **2005**. “Towards Prunolides: Regioselective ortho lithiation of 3-aryl and 3-styryl furans”.
13. **Vassilikogiannakis, G.**; Tofi, M; Georgiou, T.; Montagnon, T. *7<sup>th</sup> Conference on Medicinal Chemistry: Drug Discovery and Design*, Patras, Greece, March **2006**. “Synthesis of the bis-spirocyclic core of the Prunolides, Pinnatoxins, and Pteriatoxins using a singlet oxygen-mediated cascade sequence”.
14. Georgiou, T.; Tofi, M.; Montagnon, T.; **Vassilikogiannakis, G.** *International Symposium on Chemistry, Biology and Medicine*, Paphos, Cyprus, May 28 – June 01, **2006**. “A versatile and general one-pot method for synthesizing bis-spiroketal motifs”.
15. **Vassilikogiannakis, G.**; Montagnon T.; Tofi, M; Georgiou, T. *1<sup>st</sup> Cost D28-007 working group meeting in natural products as a source for discovery, synthesis, and application of new pharmaceuticals*, Heraklion, Greece, June 22 – 24, **2006**. “Developing biomimetic synthetic strategies for making the spiroketal motifs present in a slew of bioactive natural products”.
16. **Vassilikogiannakis, G.**; Montagnon T.; Tofi, M; Georgiou, T. *Greynog Conference in Organic Chemistry*, Greynog, Wales, September 29 – October 01, **2006**. “The power of singlet oxygen chemistry in bio mimetic syntheses.” Invited lecture.
17. Margaros I.; **Vassilikogiannakis G.** *2<sup>nd</sup> Hellenic Symposium on Organic Synthesis*, Athens, 19 – 21 April **2007**. “Total synthesis of Chinensines A – D and *epi*-Premnalene”.
18. **Vassilikogiannakis, G.** *Invited lecture in the National Institute of Research (EIE)*, Athens 08 May **2007**. “Singlet Oxygen: A powerful tool in natural product synthesis”.
19. **Vassilikogiannakis, G.**; Margaros, I. *Invited lecture in the 13<sup>th</sup> Hellenic Symposium of Pharmaceutical Chemistry*, Athens 13 – 14 March **2008**. “Total synthesis of biologically active natural products Chinensines A – E, (+)-Zerumin B and (+)-Premnalane A”.
20. **Vassilikogiannakis G.** *Invited lecture in the colloquium of the Department of Chemistry of the University of Birmingham*, Birmingham March 18, **2008**. “The power of molecular oxygen in natural product synthesis”.
21. **Vassilikogiannakis G.** *Invited Lecture in a Chemistry Symposium featuring Europe’s up and coming academics*, Nottingham March 19, **2008**. “Using singlet oxygen to synthesize polyoxygenated natural products from furans”.

22. **Vassilikogiannakis G.** *Invited Lecture in a Symposium in Natural Products Chemistry Biology and Medicine*, Acquafredda di Maratea, Italy, May 18 – 23, **2008**. “The use of singlet oxygen in natural product synthesis”.
23. **Vassilikogiannakis, G.**; Tofi, M.; Montagnon, T. *10<sup>th</sup> Conference on Medicinal Chemistry: Drug Discovery and Design*, Patras Greece, March 18 – 20, **2009**. "From simple furans to bioactive polyoxygenated natural products".
24. **Vassilikogiannakis, G.**; Tofi, M.; Montagnon, T. *16<sup>th</sup> European Symposium of Organic Chemistry (ESOC)*, Prague, July 12 – 16, **2009**. “From simple furans to polyoxygenated natural products”. *Invited as Young Talented Organic Chemist*.
25. Pavlakos, E.; Georgiou, T.; Tofi, M.; Montagnon, T.; **Vassilikogiannakis, G.** *3<sup>rd</sup> Hellenic Symposium on Organic Synthesis*, Athens Greece, October 15 – 17, **2009**. “ $\gamma$ -Spiroketal  $\gamma$ -lactones from 2-( $\gamma$ -hydroxyalkyl)furans: Syntheses of *epi*-pyrenolides D and crassalactone D”.
26. **Vassilikogiannakis, G.** *Invited Lecture in the Colloquium of the Department of Chemistry of the University of Thessaloniki*, Thessaloniki, November 06, **2009**. “Biomimetic singlet oxygen mediated transformations of furans to natural products”.
27. Pavlakos, E.; Georgiou, T.; Tofi, M.; Montagnon, T.; **Vassilikogiannakis, G.** *COST CM0804 Chemical Biology with Natural Products Workshop*, Sienna Italy, December 03 – 06, **2009**. “Syntheses of *epi*-Pyrenolides D and Crassalactone D”.
28. **Vassilikogiannakis, G.**; Tofi, M.; Alexopoulou, I.; Montagnon, T. *Third European Workshop in Drug Synthesis*, Sienna Italy, May 23 – 27, **2010**. “From simple furans to complex natural products using a green oxidant”.
29. Alexopoulou, I.; Tofi, M.; Montagnon, T.; **Vassilikogiannakis, G.** *17<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2011)*, Crete Greece, July 10 – 15, **2011**. “Singlet oxygen initiated cascade transformation of a simple difuran into the key ABC-ring motif of the pectenotoxins”.
30. Noutsias, D.; Kouridaki, A.; **Vassilikogiannakis, G.** *17<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2011)*, Crete Greece, July 10 – 15, **2011**. “Scope and limitations of the photooxidations of 2-( $\alpha$ -hydroxyalkyl) furans: Synthesis of 2-hydroxy-*exo*-brevicomine”.
31. **Vassilikogiannakis, G.** *Invited lecture in the Colloquium of the Department of Chemistry of the University of Tel Aviv*, Tel Aviv Israel, November 27, **2011**. “Advancing the green chemistry of singlet oxygen and applying it to synthetic challenges”.

32. Noutsias, D.; Alexopoulou, I.; Montagnon, T.; **Vassilikogiannakis, G.** *COST CM0804 Chemistry and Target Identification of Natural Products*, Bucharest Romania, May 22 – 24, **2012**. “Using water, light, air and spirulina to access a wide variety of polyoxygenated compounds”.
33. Kalaitzakis, D.; Montagnon, T.; Alexopoulou, I.; Montagnon, T.; **Vassilikogiannakis, G.** *Invited Lecture in the International Conference on Chemistry for Health*, Athens Greece, September 9 – 14, **2012**. “Advancing the green chemistry of singlet oxygen and applying it to synthetic challenges”.
34. **Vassilikogiannakis, G.** *Invited Lecture in the Colloquium of the Department of Chemistry of the University of Gent*, Gent Belgium, January 11, **2013**. “The singlet oxygen strategy: Sustainable oxidation procedures for applications in organic synthesis”.
35. Kalaitzakis D.; Montagnon, T.; Alexopoulou, I.; **Vassilikogiannakis, G.** *18<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2013)*, Marseille France, July 7 – 12, **2013**. “The singlet oxygen strategy: Sustainable oxidation procedures for applications in the synthesis of Meyers' bicyclic lactams”.
36. Kouridaki, A.; Montagnon, T.; Kalaitzakis, D.; **Vassilikogiannakis, G.** *18<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2013)*, Marseille France, July 7 – 12, **2013**. “Using singlet oxygen to synthesise the CDE-ring system of the pectenotoxins”. Awarded with the SYNGENTA best poster award.
37. Kalaitzakis, D.; Montagnon, T.; Antonatou, E.; **Vassilikogiannakis, G.** *15<sup>th</sup> Tetrahedron Symposium*, London UK, June 24 – 27, **2014**. “Singlet oxygen initiated one-pot synthesis of 1-azaspirocycles and the tetracyclic framework of the aromatic *erythrina* alkaloids from simple furans”.
38. Kalaitzakis, D.; Montagnon, T.; Antonatou, E.; Bardají, N.; **Vassilikogiannakis, G.** *15<sup>th</sup> Tetrahedron Symposium*, London UK, June 24 – 27, **2014**. “From simple furans to complex *N*-bearing aromatic polycycles via a flexible and general reaction sequence initiated by singlet oxygen”.
39. Montagnon, T.; Triantafyllakis, M.; Tofi, M.; Kouridaki, A; **Vassilikogiannakis G.** *5<sup>th</sup> EuCheMS Chemistry Congress*, Istanbul Turkey, August 31 – September 04, **2014**. “Singlet oxygen-mediated synthesis of the ABCD-ring skeleton of the azaspiracids”.
40. Triantafyllakis, M.; **Vassilikogiannakis G.** *5<sup>th</sup> EuCheMS Chemistry Congress*, Istanbul Turkey, August 31 – September 04, **2014**. “Diversity orientated synthesis based on one pot furan photooxidations”.
41. Kotzabasaki V.; Triantafyllakis, M.; Stratakis, M.; **Vassilikogiannakis G.** *5<sup>th</sup> EuCheMS Chemistry Congress*, Istanbul Turkey, August 31 – September 04, **2014**. “Design, synthesis and evaluation of novel SMAC-AVPI mimics”.
42. Vasilikogiannaki, E.; Titilas, I.; **Vassilikogiannakis, G.**; Stratakis, M. *5<sup>th</sup> EuCheMS Chemistry Congress*, Istanbul Turkey, August 31 – September 04, **2014**. “cis-Semihydrogenation of alkynes with amine borane complexes catalyzed by gold nanoparticles under mild conditions”.



43. Kalaitzakis, D.; Kouridaki, A.; Noutsias, D.; Montagnon, T.; **Vassilikogiannakis, G.** *24<sup>th</sup> International Symposium: Synthesis in Organic Chemistry*, Cambridge UK, July 20 – 23, **2015**. “Methylene blue as photosensitizer and redox agent: Synthesis of 5-hydroxy-1*H*-pyrrol-2(5*H*)-ones from furans”.
44. Kalaitzakis, D.; Montagnon, T.; Ioannou, G. I.; Triantafyllakis, M.; Alexopoulou, I.; Sofiadis, M.; Antonatou, E.; **Vassilikogiannakis, G.** *24<sup>th</sup> International Symposium: Synthesis in Organic Chemistry*, Cambridge UK, July 20 – 23, **2015**. “Singlet oxygen-mediated transformation of furans into aromatic nitrogen-containing polycycles and 4-hydroxy-2-cyclopentenones in water”.
45. **Vassilikogiannakis, G.** *Invited Speaker in the International Conference on Taming Reactive Intermediates, organised by the Society of Chemical Industry (SCI)*, London UK, October 20, **2015**. “Time to add some blue to the palette: Introducing basic nitrogen into singlet oxygen initiated cascades”.
46. Sofiadis, M.; Kalaitzakis, D.; Triantafyllakis, M.; Noutsias, D.; **Vassilikogiannakis, G.** *16<sup>th</sup> IUPAC International Conference on Polymers and Organic Chemistry* Hersonissos Crete, Greece, June 13 – 16, **2016**. “Synthesis of pyrrolizidine and indolizidine alkaloids initiated by photooxidation of furylalkylamines”.
47. Kalaitzakis, D.; Ioannou, G. I.; **Vassilikogiannakis, G.** *Invited Lecture in the International Conference on the Singlet Oxygen Strategy: From Singlet Oxygen to Sustainable Oxidation*, Gent Belgium, June 15 - 17, **2016**. “Furans, singlet oxygen and basic nitrogen - A powerful partnership for synthesis”.
48. Ioannou, G.; Kalaitzakis, D.; Montagnon, T.; Antonatou, E.; **Vassilikogiannakis, G.** *International Conference on the Singlet Oxygen Strategy: From Singlet Oxygen to Sustainable Oxidation*, Gent Belgium, June 15 - 17, **2016**. “Singlet oxygen-mediated transformation of furans into aromatic nitrogen-containing polycycles in water: Synthesis of imidazole alkaloids Glochidine and Glochidicine”.
49. **Vassilikogiannakis, G.** *Invited lecture in the Colloquium of the School of Biological and Chemical Sciences of Queen Mary University*, London UK, July 25, **2016**. “Singlet oxygen and basic nitrogen: Not an incompatible pairing after all”.
50. **Vassilikogiannakis, G.** *Invited lecture in the Colloquium of the School of Chemistry of the University of Manchester*, Manchester UK, July 27, **2016**. “Furans, singlet oxygen and basic nitrogen: A powerful partnership for synthesis”.
51. Ioannou, G. I.; Kalaitzakis, D.; Montagnon, T.; Antonatou E.; **Vassilikogiannakis, G.** *6<sup>th</sup> EuCheMS Chemistry Congress*, Seville Spain, September 11 - 15, **2016**. “Singlet oxygen-mediated transformation of furans into aromatic nitrogen-containing polycycles in water: Synthesis of imidazole alkaloids Glochidine and Glochidicine”.
52. **Vassilikogiannakis, G.** *Invited lecture in the International Symposium on Chemistry at the Interface of Biology and Medicine*, Iraklion Greece, September 23 - 26, **2016**. “Furans, singlet oxygen and basic nitrogen: A powerful partnership for synthesis”.

53. Kalaitzakis, D.; Ioannou, G. I.; Kouridaki, A.; Noutsias, D.; Montagnon, T.; **Vassilikogiannakis, G.** *22<sup>nd</sup> Panhellenic Symposium in Chemistry*, Thessaloniki Greece, December 2 - 4, **2016**. “Methylene blue as photosensitizer and oxidizing agent: Synthesis of natural products glochidine and glochidicine”.
54. Kalaitzakis, D.; Montagnon, T.; Ioannou, G. I.; Triantafyllakis, M.; Sofiadis, M.; **Vassilikogiannakis, G.** *Invited lecture in the 22<sup>nd</sup> Panhellenic Symposium in Chemistry*, Thessaloniki Greece, December 2 - 4, **2016**. “Development of singlet oxygen based sustainable synthetic methodologies and their application in organic synthesis”.
55. **Vassilikogiannakis, G.** *Invited lecture in the Colloquium of the Department of Biomolecular Systems Max Planck Institute of Colloids and Interfaces*, Potsdam-Golm Germany, February 20, **2017**. “Development of sustainable singlet oxygen based synthetic methodologies and their applications in alkaloid synthesis”.
56. **Vassilikogiannakis, G.** *Invited lecture in the Colloquium of the Institute of Chemistry and Biochemistry Freie Universität*, Berlin Germany, February 21, **2017**. “Development of sustainable singlet oxygen based synthetic methodologies and their applications in alkaloid synthesis”.
57. **Vassilikogiannakis, G.**; Kalaitzakis, D.; Triantafyllakis, M.; Sofiadis, M.; Ioannou, G. I.; Montagnon, T. *Invited lecture in the 20<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2017)*, Cologne Germany, July 02 - 06, **2017**. “Advancing the sustainable chemistry of singlet oxygen and applying it to synthetic challenges”.
58. Triantafyllakis, M.; Kalaitzakis, D.; Ioannou, G. I.; **Vassilikogiannakis, G.** *20<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2017)*, Cologne Germany, July 02 - 06, **2017**. “Singlet oxygen initiated one-pot transformation of simple furans into octahydroindole scaffolds”.
59. Sofiadis, M.; Kalaitzakis, D.; Triantafyllakis, M.; Noutsias, D.; **Vassilikogiannakis, G.** *20<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2017)*, Cologne Germany, July 02 - 06, **2017**. “Synthesis of pyrrolizidine and indolizidine alkaloids initiated by photooxidation of furylalkylamines”.
60. Ioannou, G. I.; Montagnon, T.; Kalaitzakis, D.; Pergantis, S. A.; **Vassilikogiannakis, G.** *20<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2017)*, Cologne Germany, July 02 - 06, **2017**. “A novel nebulizer-based continuous flow reactor: Introducing the use of pneumatically generated aerosols for highly productive photooxidations”.
61. Triantafyllakis, M.; Ioannou, G. I.; Kalaitzakis, D.; Montagnon, T.; **Vassilikogiannakis, G.** *Invited lecture in the 10<sup>th</sup> European Conference on Marine Natural Products (10<sup>th</sup> ECMNP)*, Kolymbari, Crete Greece, September 03 - 07, **2017**. “Advancing the sustainable chemistry of singlet oxygen and applying it to natural product synthesis”.
62. **Vassilikogiannakis, G.** *Invited lecture in the Colloquium of the Institut de Chimie des Substances Naturelles (ICSN), CNRS campus in Gif sur Yvette, Paris-Saclay University*, Paris France, March 15, **2018**.

- “Use of singlet oxygen in the sustainable synthesis of alkaloids: Continuous flow photooxidations in nebula”.
63. **Vassilikogiannakis, G.** *Invited lecture in the Colloquium of the Department of Chemistry, Ludwig Maximilian University (LMU), Munich Germany, July 2, 2018.* “Sustainable synthesis of high value N-containing compounds using singlet oxygen: Continuous flow photooxidations in nebula”.
64. **Vassilikogiannakis, G.** *Invited lecture in the 1<sup>st</sup> Greek ERC Grantees meeting, ITE-FORTH, Iraklion Greece, October 15 - 17, 2018.* “Continuous flow biphasic reactions in microdroplets: Doing chemistry in a cloud”.
65. Sofiadis, M.; Kalaitzakis, D.; Sarris, J.; Montagnon, T.; **Vassilikogiannakis, G.** *21<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2019), Vienna Austria, July 14 - 18, 2019.* “Double vinylogous reactivity of the  $\gamma$  and  $\gamma'$  positions of cyclic 2-enones: Organocatalyzed asymmetric synthesis of fused carbocycles”.
66. Sofiadis, M.; Kalaitzakis, D.; Triantafyllakis, M.; Daskalakis, K.; **Vassilikogiannakis, G.** *21<sup>th</sup> European Symposium on Organic Chemistry (ESOC-2019), Vienna Austria, July 14 - 18, 2019.* “Organocatalytic [3+2]-annulations of  $\beta,\gamma$ -unsaturated- $\gamma$ -lactams with  $\alpha,\beta$ -unsaturated aldehydes”.
67. Kalaitzakis, D.; Ioannou, G.; Sofiadis, M.; Montagnon, T.; **Vassilikogiannakis, G.** *Invited lecture in the 8<sup>th</sup> EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry, Athens Greece, September 1 - 5, 2019.* “Development and application in flow of sustainable synthetic methodologies that use singlet oxygen as green oxidant and cascade reaction facilitator”.
68. **Vassilikogiannakis, G.** *Invited lecture in the 18<sup>th</sup> Annual Symposium on Recent Advances in Synthesis and Chemical Biology* organized by the Centre for Synthesis and Chemical Biology (CSCB) and held in Trinity College Dublin Ireland, December 6, 2019. “The reticent tautomer: Exploiting the interesting multisite and multitype reactivity of 4-pyrrolin-2-ones”.
69. **Vassilikogiannakis, G.** *Invited lecture in the 18<sup>th</sup> Hellenic Symposium on Medicinal Chemistry (18<sup>th</sup> HSMC), Athens Greece, February 25 - 27, 2021.* “Synthesis with visible light is where the future lies”.

## ORGANIZATION OF CONFERENCES

- [1] Member of the organizing committee of ESF-COST High-Level Research Conference in “Natural Products Chemistry Biology and Medicine II”, Acquafredda di Maratea, Italy August 29 – September 3, 2009.
- [2] Member of the scientific committee of COST Action CM0804 Workshop on “Natural Products as Drugs and Leads for Drugs”, Orthodox Academy of Crete, Kolymvari, Crete, Greece, October 12 -15, 2010.

- [3] Member of the organizing committee of 17<sup>th</sup> European Symposium on Organic Chemistry (**ESOC-2011**), Crete, Greece, July 10 – 15, **2011**.