



PERSONAL INFORMATION

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- **Nationality:** Cypriot
- **Languages:** Greek (mother language), English (fluent)
- **Website:** <http://schofield.chem.ox.ac.uk/mariosmarkoulides.aspx>

EDUCATION & CAREER

- 2017 – present
- **Research Executive Agency**, European Commission
 - **Research Fellow**, Medical School, **University of Cyprus**
 - Adjunct Faculty, Department of Pharmacy, University of Nicosia
 - Teaching (Year 7 A' level Students), Grammar School, Nicosia
 - TIMSS 2019 project (in collaboration with the University of Cyprus and the Cyprus Pedagogical Institute)
- 2015 – 2017
- Marie Curie Fellow**, Chemistry Research Laboratory, **University of Oxford**
Supervisor: Professor Christopher Schofield (FRS)
Project: “New approaches to metallo- β -lactamase inhibitors” (H2020-MSCA-IF)
- 2015
- Special Scientist**, Department of Chemistry, **University of Cyprus**
- 2014
- CNRS Researcher**, CEMES-CNRS, Nanoscience group, Toulouse, France
Supervisor: Professor Andre Gourdon
Project: “Planar Atomic and Molecular Scale devices” (PAMS European FP7 project)
- 2012 – 2013
- Visiting Lecturer**, Department of Pharmacy, **Frederick University of Cyprus**
- 2010 – 2012
- Post-doctoral Researcher**, Department of Chemistry, **University of Cyprus**
Supervisor: Professor Nikos E. Chronakis
- 2005 – 2008
- PhD** in Chemistry, School of Chemistry, **University of Manchester**, UK
Supervisor: Dr Andrew C. Regan
Thesis: “Synthesis of phosphinic acid analogues of anti-tumour agents”
- 2003 – 2005
- MPhil** in Chemistry, School of Chemistry, **University of Manchester**, UK
Supervisor: Professor Eric J. Thomas
Thesis: “Approaches to the total synthesis of a possible M₃-receptor antagonist”
- 2000 – 2003
- BSc (Hons)** in Chemistry, School of Chemistry, **University of Manchester**, UK
Supervisor: Dr Andrew C. Regan
Final year project: “Preparation of prochiral 3-alkyl and 3-aryl pentanedinitriles”
- 1997 – 2000
- Civil service**, Artillery Section, Cyprus National Guard, Cyprus

UNIVERSITY TEACHING

- 2018 – 2019
- Adjunct Faculty**, Department of Pharmacy, **University of Nicosia**
Undergraduate Courses:
- Pharmaceutical Chemistry III (3rd Year; PHAR340)
- 2015
- Special Scientist**, Department of Chemistry, **University of Cyprus**
Undergraduate Courses:
- Organic Chemistry (1st Year; CHEM130)
- 2012 – 2013
- Visiting Lecturer**, Department of Pharmacy, **Frederick University of Cyprus**
Undergraduate Courses:
- General and Inorganic Chemistry (1st Year; PHA101)
- Analytical Chemistry (1st Year; PHA106)
- 2005 – 2008
- Teaching Assistant**, School of Chemistry, **University of Manchester**, UK
Undergraduate Courses:
- Organic Chemistry II (2nd Year; 2411)
- Organic Chemistry III (3rd Year; 3401)

SUPERVISION

<i>Oxford</i>	CJS research group , Chemistry Research Laboratory, University of Oxford - Dong Zhang (DPhil) - Christoph Lehmann (visiting Masters) - Anete Parkova (visiting PhD) - Vaishnavi Khullar (Part II) <i>Projects:</i> “Synthesis and development of broad spectrum metallo- β -lactamase inhibitors”
<i>CNRS</i>	CEMES-CNRS, Nanoscience group , Toulouse, France - Chiara Venturini (PhD)
<i>UCY</i>	NEC research group , Department of Chemistry, University of Cyprus - George I. Ioannou (Masters)
<i>Manchester</i>	ACR research group , School of Chemistry, University of Manchester - Adam Colbourne (BSc); <i>Project:</i> “Stereoselective yeast reductions of β -ketoesters” - Rebecca Garside (MChem); <i>Project:</i> “Synthesis of 5-hydroxypiperazic acid using an asymmetric Diels-Alder reaction” - Dixit Parmar (MChem); <i>Project:</i> “Stereoselective [2,3]-Wittig rearrangements of acetals”

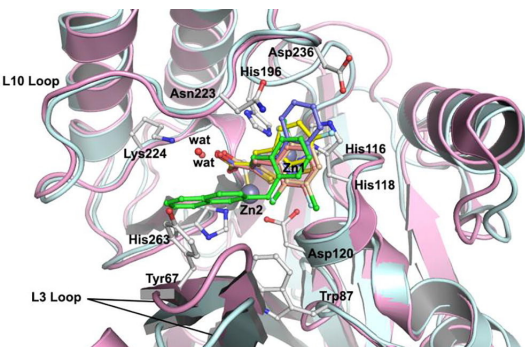
AWARDS & HONOURS

2015 – 2017	Marie Skłodowska-Curie Fellowship (IF) , European Union’s Horizon 2020
2010 – present	MRSC , The Royal Society of Chemistry, UK
2005 – 2010	Associate Member , The Royal Society of Chemistry, UK
2005 – 2008	PhD scholarship , The A. G. Leventis Foundation, Cyprus
2005 – 2008	PhD scholarship , University of Manchester, UK
2003 – 2004	Masters’ studentship , Muscagen Ltd., Cardiff, UK

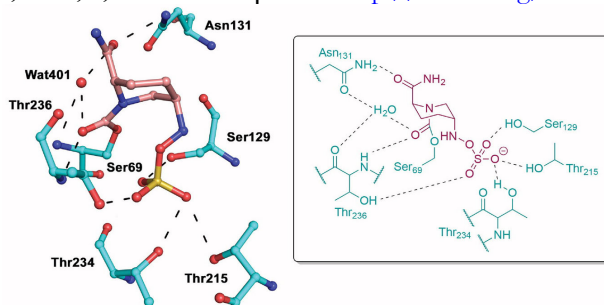
ADDITIONAL CERTIFICATES

Oct 2015	Mnova Advanced NMR , University of Oxford
Nov 2015	ICM MolSoft , UCL , London
Mar 2014	UHV-AFM on-surface synthesis , JGU, Mainz, Germany
Feb 2011	Bruker BioSpin (Avance III 500 Ultrashield Plus) & Autoflex III Smartbeam (MALDI TOF/TOF MS) , University of Cyprus
Jan 2007	Teaching Certificate , Faculty of Humanities, University of Manchester
Jul 2007	Computing Certificate , Department of Computer Science, University of Manchester
Sep 2003	Health and Safety Certificate , School of Chemistry, University of Manchester

PUBLICATIONS

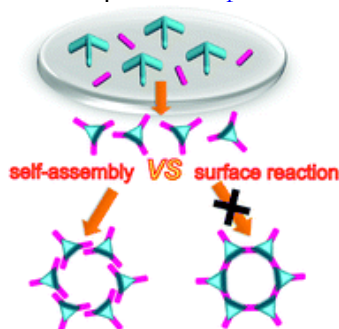
<i>Oxford</i>	<p>13. Dong Zhang, Marios S. Markoulides, Dmitrijs Stepanovs, Anna M. Rydzik, Ahmed El-Hussein, Corentin A. M. Bon, Jos J. A. G. Kamps, Klaus-Daniel Umland, Patrick M. Collins, Samuel T. Cahill, David Y. Wang, Timothy D. W. Claridge, Jürgen Brem, Michael A. McDonough, and Christopher J. Schofield,</p> <p>“Structure activity relationship studies on rhodanines and derived enethiol inhibitors of metallo-β-lactamases”,</p> <p><i>BioOrg. Med. Chem.</i>, 2018, 26, 2928–2936. DOI: https://doi.org/10.1016/j.bmc.2018.02.043</p>	
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12. David Y. Wang, Martine I. Abboud, Marios Markoulides, Jürgen Brem, and Christopher J. Schofield, "The long road to avibactam - the first clinically useful non- β -lactam working like a β -lactam", *Fut. Med. Chem.*, 2016, 8, 1063–1084. | DOI: <http://dx.doi.org/10.4155/fmc-2016-0078>

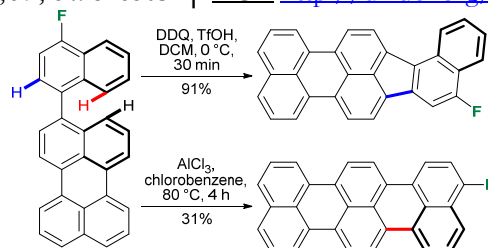


CNRS

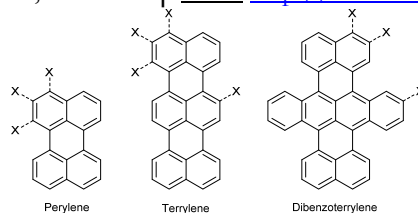
11. Jie-Yu Yue, Marios Markoulides, Andrew C. Regan, Shu-Ying Li, Nikos Chronakis, André Gourdon, Ting Chen, Hui-Juan Yana, and Dong Wang, "Construction of 2D nanoporous networks by coupling on-surface dynamic imine chemistry and dipole-stabilized self-assembly", *Chem. Commun.*, 2017, 53, 428–431. | DOI: <http://dx.doi.org/10.1039/C6CC08482F>



10. Marios S. Markoulides, Chiara Venturini, David Neumeyer, and Andre Gourdon, "Oxidative cyclodehydrogenation of a perylene derivative: different reagents give different products", *New J. Chem.*, 2015, 39, 6498–6503. | DOI: <http://dx.doi.org/10.1039/c5nj00808e>



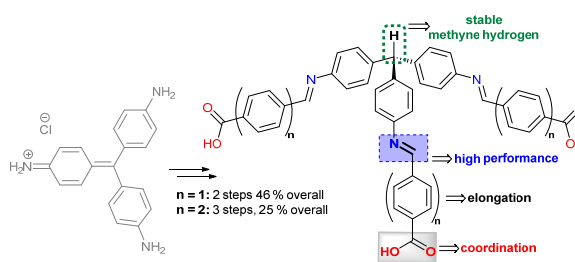
9. Sanli Faez, Nico R. Verhart, Marios S. Markoulides, Francesco Buda, Andre Gourdon, and Michel Orrit, "Design and synthesis of aromatic molecules for probing electric fields at the nanoscale", *Faraday Discuss.*, 2015, 184, 251–262. | DOI: <http://dx.doi.org/10.1039/c5fd00065c>



Halogenated organic dyes as nanoprobes for electric fields

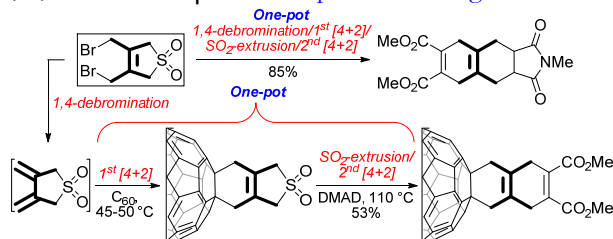
UCY

8. Marios S. Markoulides, Constantinos G. Efthymiou, Anastasios J. Tasiopoulos, and Nikos Chronakis, "Design and Synthesis of new Nanosized C_3 -Symmetrical Tricarboxylic Acids: Key Elongated Ligands for the Preparation of Highly Porous MOFs", *Syn. Lett.*, 2015, 26, 2659–2662. | DOI: <http://dx.doi.org/10.1055/s-0035-1560207>

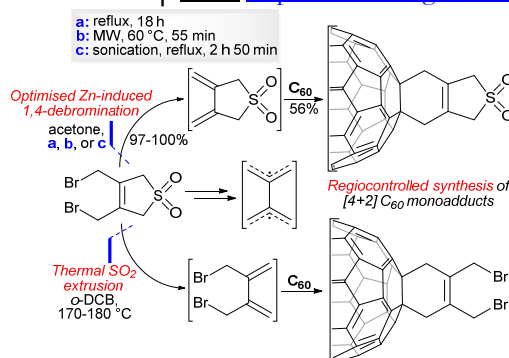


UCY

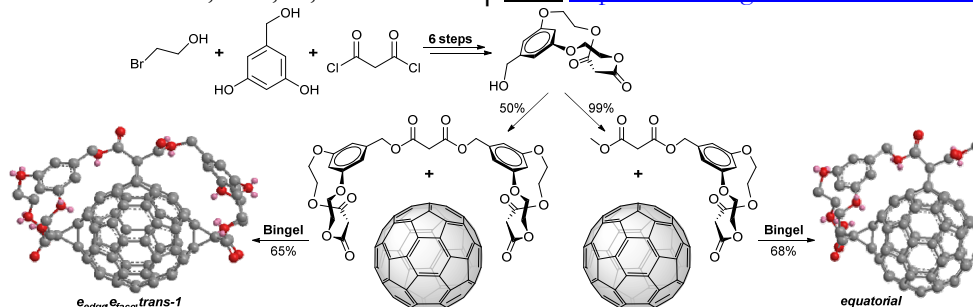
7. Marios S. Markoulides, George I. Ioannou, Manolis J. Manos, and Nikos Chronakis, "One-pot thermally chemocontrolled double Diels–Alder strategies. A route to [4 + 2] functionalisation/[4 + 2] derivatization of C_{60} ", *RSC Adv.*, 2013, 3, 4750–4756. | DOI: <http://dx.doi.org/10.1039/C3RA23327H>



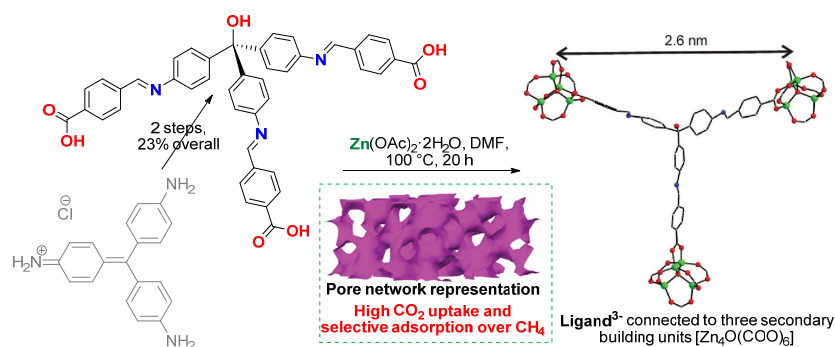
6. Marios S. Markoulides, Charalambos P. Ioannou, Manolis J. Manos, and Nikos Chronakis, "Quantitative preparation of 3,4-di(methylene)tetrahydrothiophene-1,1-dioxide by Zn-induced 1,4-debromination. A valuable 6-C reactive diene in [4+2] cycloadditions with DMAD and [60]fullerene", *RSC Adv.*, 2012, 2, 12269–12277. | DOI: <http://dx.doi.org/10.1039/C2RA22502F>



5. Maria Riala, Marios S. Markoulides, Eleni Moushi, and Nikos Chronakis, "One-pot regioselective synthesis and X-ray crystal structure of a stable [60]fullerene trisadduct with the *e*_{edge}*e*_{face}*trans*-1 addition pattern", *Chem. Commun.*, 2011, 47, 11948–11950. | DOI: <http://dx.doi.org/10.1039/C1CC15596B>

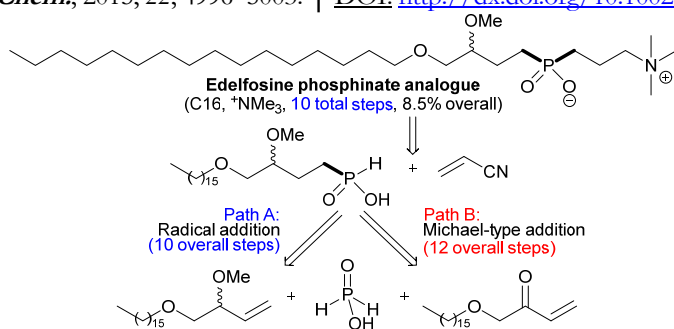


4. Manolis J. Manos, Marios S. Markoulides, Christos D. Malliakas, Giannis S. Papaefstathiou, Nikos Chronakis, Mercouri G. Kanatzidis, Pantelis N. Trikalitis, Anastasios J. Tasiopoulos, "A highly porous interpenetrated metal-organic framework from the use of a novel nanosized organic linker", *Inorg. Chem.*, 2011, 50, 11297–11299. | DOI: <http://dx.doi.org/10.1021/ic201919q>

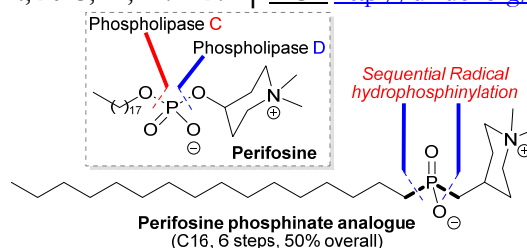


Manchester

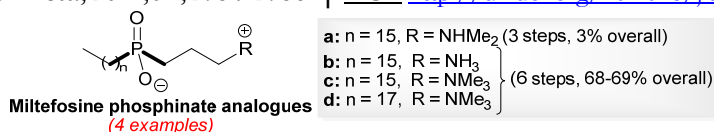
3. Marios S. Markoulides, and Andrew C. Regan, "A facile access to a phosphinate analogue of the anti-tumour ether phospholipid edelfosine", *Eur. J. Org. Chem.*, 2015, 22, 4996–5003. | DOI: <http://dx.doi.org/10.1002/ejoc.201500477>



2. Marios S. Markoulides, and Andrew C. Regan, "Synthesis of a phosphinate analogue of the anti-tumour phosphate di-ester perifosine via sequential radical processes", *Org. Biomol. Chem.*, 2013, 11, 119–129. | DOI: <http://dx.doi.org/10.1039/C2OB26395E>



1. Marios S. Markoulides, and Andrew C. Regan, "Synthesis of phosphinate analogues of the phospholipid anti-tumour agent hexadecylphosphocholine (miltefosine)", *Tetrahedron Lett.*, 2011, 52, 2954–2956. | DOI: <http://dx.doi.org/10.1016/j.tetlet.2011.03.107>



CONFERENCES & INVITED ACADEMIC LECTURES

- 12th Jan 2017 17. "Comp Chem Kitchen", CCK-6, University of Oxford
By Dr Russell Viner (Syngenta, UK): "Structure-Based Design of a Novel Class of Herbicidal HPPD Inhibitors"
- 02nd Nov 2016 16. ACS-Citation for Chemical Breakthrough, University of Oxford
One day Symposium: "Do beta-lactams have a future?"
- 27th Oct 2016 15. CJS talks, Chemistry Research Laboratory, University of Oxford
Speaker: "Meeting the Global Challenge of Antibiotic Resistance; Towards broad spectrum Metallo-β-lactamase Inhibitors"
- 24th – 27th July 2016 14. ESOF 2016, University of Manchester
Marie Curie Poster Stand: "Meeting the Global Challenge of Antibiotic Resistance; Towards broad spectrum Metallo-β-lactamase Inhibitors"

- 13th May 2016 **13. Porfyraakis Research Group**, Oxford Materials, University of Oxford
Speaker: “Strategies for synthesis of functionalised fullerenes, and planar polyaromatic hydrocarbons”
- 19th Nov 2015 **12. CJS talks**, Chemistry Research Laboratory, University of Oxford
Speaker: “Synthetic strategies for: phosphinic acids, fullerenes, graphene nano-ribbons, and MBLIs”
- 16th Jun 2014 **11. CEMES-CNRS**, Toulouse, France
Speaker: “1. Synthetic strategies for Regioselective & Regiocontrolled C₆₀ functionalisation with further derivatisation. 2. Preparation of ligands for highly porous MOFs. 3. Approaches to the construction of C₆₀-based chiral 3D molecular architectures.”
- 25th – 30th May 2014 **10. Planar Atomic and Molecular Scale devices**, Les Houches, France
Workshop: “On-surface synthesis”
- 20th & 22nd Mar 2013 **9. Ministry of Education**, Cyprus
[Mediterranean Hotel (Limassol) & Palm Beach Hotel (Larnaca)]
Speaker (outreach): “Introduction to the Department of Pharmacy at Frederick University of Cyprus”
- 26th – 30th Aug 2012 **8. 4th EuCheMS Chemistry Congress**, Prague, Czech Republic
Poster presentation: “Quantitative preparation of 3,4-di(methylene)tetrahydrothiophene-1,1-dioxide by Zn-induced 1,4-elimination. A 6-C synthon for the preparation of a short-chain [4+2] C₆₀ monoadduct.”
- 26th – 30th Oct 2011 **7. 11th Symposium of Greece & Cyprus**, Limassol, Cyprus
Poster presentation: “Synthesis of metal-organic frameworks with high internal surface and porosity, utilizing an extended tricarboxylic acid ligand”
- 20th – 21st Sep 2011 **6. International Symposium on Metal Organic Frameworks**, Technische Universität Dresden, Germany
Poster presentation: “A highly porous interpenetrated Metal–Organic Framework from the use of a novel nanosized organic linker”
- 10th – 15th Jul 2011 **5. 17th European Symposium on Organic Chemistry (ESOC2011)**, Crete, Greece
Poster presentation: “Approaches to the regio- and diastereoselective synthesis of the *e,trans-1,e* trisadduct of C₆₀ utilizing a trismalonate tether”
- 23rd – 27th Jun 2010 **4. 3rd Symposium on Chemistry (Greece & Cyprus)**, Protaras, Cyprus
Speaker: “Tunneling effect in the ene auto-oxidation reaction of a dumbbell shaped bis-fullerene adduct”
- 8th Oct 2008 **3. Department of Chemistry, University of Cyprus**, Nicosia, Cyprus
Speaker: “Synthesis of biologically active phospholipids”
- 22nd May 2008 **2. Pfizer Symposium on Organic Chemistry**, University of Manchester, UK
Speaker: “Approaches to the synthesis of analogues of miltefosine, perifosine, edelfosine and PAF”
- 26th Sep 2007 **1. AstraZeneca Symposium on Organic Chemistry**, University of Manchester, UK
Poster presentation: “Approaches to the synthesis of analogues of miltefosine and edelfosine”