CURRICULUM VITAE

Nikos Tagmatarchis

Director of Research
Theoretical and Physical Chemistry Institute

Phone: + 30 210 7273835
Fax: + 30 210 7273794
E-mail: tagmatar@eie.gr

Education

Ph. D. in Synthetic Organic and Medicinal Chemistry, Department of Chemistry, University of Crete, Greece (1997).
Diploma in Chemistry, Department of Chemistry, University of Crete, Greece (1992).

Professional Experience & Appointments

12/2012 – present	Director of Research, TPCI, NHRF, Athens, Greece.
07/2006 – 11/2012	Senior Researcher, TPCI, NHRF, Athens, Greece.
12/2004 – 05/2006	Collaborating Researcher, TPCI, NHRF, Athens, Greece.
01/2002 – 11/2004	Research Associate, Department of Pharmaceutical Sciences, University of Trieste, Italy.
12/1999 – 11/2001	Research Associate, Department of Chemistry, Nagoya University, Japan.
12/1997 – 11/1999	Postdoctoral Researcher, School of Chemistry, Physics and Environmental Sciences, Sussex University, United Kingdom.

Main Research Interests

- Carbon-based nanostructured multifunctional materials – fullerenes, nanotubes, graphene, diamondoids.
- Nanoparticles – metallic and semiconducting.

- Supramolecular chemistry and self-assembly.
- Chemical functionalization, all-organic electron donor-acceptor and organic-inorganic hybrid materials.
- Spectroscopic, thermal and morphological characterization.
- Electronic, optical, photophysical and electrochemical properties.
- Solar energy conversion, photovoltaic/solar and photoelectrochemical cells, water splitting and H_2 evolution, catalysis and photocatalysis, non linear optics.

External Funding

Coordinator, principal investigator (EU-FP7, EURYI-ESF/EUROHORCs, JSPS, Chinese Academy of Sciences) and participant (EU-FP6, COST-ESF) in numerous competitive international and national (GSRT, NSRF 2007-2013) research projects in collaboration with academic and industrial partners.

Conferences & Invited Talks

- Over 200 announcements in international scientific conferences including plethora of invited lectures.
- Organizer and chairman of the "International Conference on Carbon Nanostructured Materials - Cnano'09", 4-8 October, 2009, Santorini, Greece.
- Organizer and chairman of the "Fullerene Silver Anniversary Symposium – FSAS2010", 4-10 October, 2010, Crete, Greece.
- Advisory Committee Member of the Workshop "Nanomaterials, Nanofabrication, Nanoengineering and Nanoconstruction" at the "International Conference on Nanosciences & Nanotechnologies" (annually since 2011), Thessaloniki, Greece.
- Local Committee Member of the International Conference "*graphene Hellas – grapHEL"*, 27-30 September, 2012, Myconos, Greece.
- Advisory Committee Member of the "5th International Conference on Micro-Nanoelectronics, Nanotechnologies and MEMs – Micro&Nano2012", 7-10 October 2012, Crete, Greece.
- Local Committee Member of the "Joint European Magnetic Symposia – JEMS 13", 25-30 August 2013, Rhodes, Greece.

Teaching Activities

- Graduate course in Organic Chemistry: “Carbon-based manostructured materials”, Chemistry Department, University of Athens, Greece (since 2010).
- Nanodema Summer School: “Multifunctional carbon nanostructures”, Departments of Chemistry, Physics, Materials Science and Engineering, University of Patras, Greece (2012).
- Frontiers in Science & Technology of Carbon Nanomaterials, International Summer School: (a) “Azafullerenes – Synthesis, properties and chemistry”, (b) “Carbon nanohorns functionalization”, Krutyn, Poland (2012).
- Supervision of Diploma, M.Sc. and Ph.D. students as well as postdoctoral researchers.

Professional Affiliations & Activities

- Editorial Board Member “Chemistry A European Journal” published by Wiley (2014)
- Editorial Advisory Board Member “Chemistry of Graphene” published by Versita (since 2012)
- Editorial Board Member “Current Medicinal Chemistry”, “Medicinal Chemistry”, and “Mini-Reviews in Medicinal Chemistry” published by Bentham Science (since 2004)
- Management Committee Member and National Representative for COST Action MP0901 “Designing Novel Materials for Nanodevices - from Theory to Practice (NanoTP)” (2009-2014)
- Invited International Partner of GDR-I (Group-de-Research) Scientific Coordination Network ′Science and Applications of Graphene and Nanotubes'' (since 2008)
- Scientific Advisory Council Member of TPCI (since 2010)
- Reviewer for scientific research proposals (EU-FP7, American Chemical Society Petroleum Research Fund, Research Promotion Foundation of Cyprus, European Science Foundation, GSRT)
- Reviewer for scientific research journals in the fields of chemistry and materials science
- Association of Greek Chemists Member (since 1992)

Awards & Distinctions

- Invited Fellowship for Long-term Research in Japan, by the Japan Society for the Promotion of Science (2013-2014)
- Visiting Professorship for Senior International Scientists, by the Chinese Academy of Sciences (2011-2012)
- European Young Investigator (EURYI) Award, by EUROHORCs / ESF (2004)
- Nominate scientists for "Nobel Awards in Chemistry" (annually since 2007, invited by "The Nobel Foundation").

Publications

Over 170 original research papers in peer-reviewed journals, 12 invited review and highlight articles, 23 publications in refereed conference proceedings, 5 chapters in books, 1 book edited, 1 book-monograph and 3 patents (American, International and European). More than 5700 citations and h-index = 32.

Selected Recent Publications

1. "Covalent functionalization of exfoliated graphene", S. P. Economopoulos and N. Tagmatarchis, Chem. Eur. J. 19, 12930 (2013).
2. "A corrole-azafullerene dyad: Synthesis, characterization, electronic interactions and photoinduced charge separation", G. Rotas, G. Charalambidis, L. Glatzel, D. Gryko, A. Kahnt, A. G. Coutsolelos and N. Tagmatarchis, Chem. Commun. 49, 9128 (2013).
3. "Rational design on n-type organic materials for high performance organic photovoltaics", C. L. Chochos, N. Tagmatarchis and V. Gregoriou, RSC Advances 3, 7160 (2013).
4. "Benzyne cycloaddition on carbon nanohorns", D. Chronopoulos, N. Karousis, T. Ichihashi, M. Yudasaka, S. Iijima and N. Tagmatarchis, Nanoscale 5, 6388 (2013).
5. "Carbon nanohorn – porphyrin dimer hybrid material for enhancing photo-energy conversion", G. Pagona, G. Zervaki, A. S. D. Sandanayaka, O. Ito, G. Charalambidis, T. Hasobe, A. G. Coutsolelos and N. Tagmatarchis, J. Phys. Chem. C 116, 9439 (2012).
6. "Azafullerene $C_{59}N$ – phthalocyanine dyad: Synthesis, characterization and photoinduced electron transfer", G. Rotas, J. Ranta, A. Efimov, M. Niemi, H. Lemmetyinen, N. Tkachenko and N. Tagmatarchis, Chem. Phys. Chem. 13, 1246 (2012).

7. “Microwave-assisted functionalization of carbon nanohorns via [2+1] nitrenes cycloaddition”, N. Karousis, T. Ichihashi, M. Yudasaka, S. Iijima and N. Tagmatarchis, Chem. Commun. 47, 1604 (2011).
8. “Graphene with covalently linked porphyrin antennae: Synthesis, characterization, and photophysical properties”, N. Karousis, A. S. D. Sandanayaka, T. Hasobe, S. P. Economopoulos, E. Sarantopoulou and N. Tagmatarchis, J. Mater. Chem. 21, 109 (2011).
9. “Exfoliation and chemical modification using microwave irradiation affording highly functionalized graphene”, S. P. Economopoulos, G. Rotas, Y. Miyata, H. Shinohara and N. Tagmatarchis, ACS Nano 4, 7499 (2010).
10. “Microwave assisted covalent functionalization of C_{60}@SWCNT peapods”, N. Karousis, S. P. Economopoulos, Y. Iizumi, T. Okazaki, Z. Liu, K. Suenaga and N. Tagmatarchis, Chem. Commun. 46, 9110 (2010).
11. “Current progress on the chemical modification of carbon nanotubes”, N. Karousis, N. Tagmatarchis and D. Tasis, Chem. Rev. 110, 5366 (2010).
12. “Carbon nanotubes decorated with palladium nanoparticles: Synthesis, characterization and catalytic activity”, N. Karousis, G. –E. Tsotsou, F. Evangelista, P. Rudolf, N. Ragoussis and N. Tagmatarchis, J. Phys. Chem. C 112, 13463 (2008).
13. “Alignment of carbon nanotubes in weak magnetic fields”, J. Tumpane, N. Karousis, N. Tagmatarchis and B. Norden, Angew. Chem. Int. Ed. 47, 5148 (2008).
14. “Azafullerene encapsulated within single-walled carbon nanotubes”, G. Pagona, G. Rotas, A. N. Khlobystov, T. W. Chamberlain, K. Porfyrakis and N. Tagmatarchis, J. Am. Chem. Soc. 130, 6062 (2008).
15. “TerpyridineCu^{II}—carbon nanohorns: Metallo-nanocomplexes for photoinduced charge-separation”, G. Rotas, A. S. D. Sandanayaka, N. Tagmatarchis, T. Ichihashi, M. Yudasaka, S. Iijima and O. Ito, J. Am. Chem. Soc. 130, 4725 (2008).