

Nikolaos M. Karousis

Assistant Professor of Organic Chemistry
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Education

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| Ph.D. in Chemistry | Thesis: "Synthesis and reactions of 1-aryl- and 1-arylmethylenepyrroles", Section of Organic Chemistry and Biochemistry, Department of Chemistry, University of Ioannina, Greece (2003). |
| BSc in Chemistry | Department of Chemistry, University of Ioannina, Greece (1995). |

Research & Professional Appointments

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| 10/2015 – 11/2022 | Intellectual Property Manager – Coordinator of Research Projects with Academia, Uni-Pharma Kleon Tsetis Pharmaceutical Laboratories S.A. |
| 09/2006 – 10/2015: | Post-Doctoral Associate, Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece. |
| 03/2003 – 09/2005: | Post-Doctoral Associate, Section of Organic Chemistry and Biochemistry, Department of Chemistry, University of Ioannina, Greece. |

Teaching Activities

- Part Time Teacher of Chemistry and Physics in Technical School (2005 – 2010).
- Laboratory assistant in undergraduate courses in Organic Chemistry Labs. Department of Chemistry, University of Ioannina, Greece (1996–2000).

Invitations

- Invited Visitor Scientist, Centre for Drug Delivery Research, Department of Pharmaceutics, The School of Pharmacy, University of London, London, England (7-8/2007).
- Invited Visitor Scientist, Institute of Organic and Bioorganic Chemistry, Humboldt University, Berlin, Germany (11-12/1997 and 2-3/1998).

Research Interests and Other Skills

- Organic synthetic chemistry. Heterocyclic Chemistry. Synthesis of substituted pyrroles. Chemical modification of carbon nanostructured materials (fullerenes, carbon nanotubes, carbon nanohorns, graphene) and their photocatalytic applications. Organic-Inorganic nanocrystalline materials.

- Expertise in chemical laboratory techniques; Frequency in the application of spectroscopic (NMR, ATR-IR, UV-Vis, Raman, Steady State and Time Resolved Fluorescence), microscopy (AFM, TEM) and thermal (TGA, DSC) techniques. Familiar in Microwave-Plasma Atomic Emission Spectrometry (MP-AES), High performance liquid chromatography (HPLC) techniques.
- Intellectual Property (IP) Monitoring, Patent Landscape, Patent Drafting.
- Computer skills: ECDL in MS office (Word, Excel, PowerPoint, Outlook), Origin, Photoshop, ChemDraw.

Languages

- Greek (native)
- English (Level C2)

External Funding

Participant as associate researcher in 9 national and international research projects in collaboration with academic and industrial organizations

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| 6/1996–7/1998 | University of Ioannina, Department of Chemistry. PhD Student. Greek General Secretariat of Research and Technology (GSRT), "Synthesis and Structural Analysis of Anthramycin Analogues with Potent Anticancer Activity. Studies of Trihalomethylene Aromatic compounds's Chemical Properties". Supervisor: Prof. G. Varvounis. |
| 10/1997 – 10/1999 | University of Ioannina and Humboldt University of Berlin. PhD Student, GSRT's Greek-German Cooperation Project, "Design, Synthesis, DNA Binding, and Biological Activity of Novel Heterocyclic Compounds as Potential Anticancer Agents. Comparative NMR and Molecular Modeling Study with the Antitumour Antibiotic Anthramycin". Supervisors: Prof G. Varvounis and Prof. J. Liebscher. |
| 11/2002 – 2/2004 | University of Ioannina, Department of Chemistry. Associate Researcher. GSRT's Project "Herakleitos: Research Scholarships emphasized in Basic Research" with the title "Synthesis and reactions of pyrrolo[3,2-c][1]benzazepines, pyrrolo[1,2-c][1,3]benzodiazepines and pyrrolo[1,2-c][1,3,6]benzo triazocines from (2-aminophenyl)- (1H-pyrrol-2-yl)methanone and N-alkyl(or aryl)-1-(2-nitrophenyl) - 1H-pyrrolo-2-carboxamides" carrying out the "Identification of organic compounds by Mass Spectrometry and GC-MS". Supervisor: Prof. G. Varvounis. |
| 3/2004 – 9/2005 | University of Ioannina, Department of Chemistry. Postdoctoral Associate. GSRT's Project "Pythagoras: Support of Research Groups in University" with the title "Synthesis of pyrrole derivatives, suitable for the synthesis of novel pyrrolobenzodiazocines which can be used as DNA alkylation agents". Supervisor: Prof. G. Varvounis. |
| 9/2006 – 8/2007 | National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, Athens. Postdoctoral Associate. ΠABET, GSRT, "Functionalized Fullerenes with Amino acids and Small Peptides Suitable for the Stabilization of Metal Nanoparticles". Supervisor: Dr. N. Tagmatarchis, Senior Researcher. |
| 9/2007 – 12/2010 | National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, Athens. Postdoctoral Associate, European Science Foundation (ESF) – |

- EURYI 2004 Award, "Functionalization of Carbon Nanotubes Encapsulating Novel Carbon-based Materials". Supervisor: Dr. N. Tagmatarchis, Senior Researcher.
- 1/2011 – 3/2013 National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, Athens. Postdoctoral Associate, ΕΣΠΑ 2007-2013, ΣΥΝΕΡΓΑΣΙΑ, GSRT, "Design, synthesis and applications of novel organocatalysts immobilized onto carbon nanotubes", Supervisor: Dr. N. Tagmatarchis, Director of Research.
- 4/2013 – 12/2013 National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, Athens. Postdoctoral Associate, "CARBONCHEM" – Chemical functionalization of carbon nanostructured materials", Supervisor: Dr. N. Tagmatarchis, Director of Research.
- 1/2014 – 10/2015 National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, Athens. Postdoctoral Associate, "FUNGRAPH" – Functionalization of graphene with multichromophoric arrays of photoactive units for energy conversion", Supervisor: Dr. N. Tagmatarchis, Director of Research.

Conferences and Invited Talks

1. A. Kimbaris, N. Karousis, J. Cobb, G. Varvounis, "An unusual Truce-Smiles Rearrangement of 1-{[1-(2-Nitrophenyl)-1H-2-pyrrolyl]sulfanyl}acetone into (2-Nitrophenyl)(1H-2-pyrrolyl sulfonyl) methane", XVIIIth European Colloquium on Heterocyclic Chemistry, Rouen, France, October 4th-7th, 1998. A-114.
2. D. Belekos, N. Karousis, A. Kimbaris, G. Rotas, T. Liaskopoulos, S. Skoulika, P. Supsana, P. Tsoungas, G. Varvounis, "The Synthesis of Nitrogen Heterocycles from Pyrroles and Naphthols", The Third Jordanian International Conference of Chemistry, Yarmouk University, Irbid, , 22–26 April, 2002, IL18.
3. N. Karousis, A. Kimbaris, K. Koriatopoulou, G. Rotas, G. Tsakonas, G. Varvounis, "The Synthesis of 6,11-Dihydro-5h-pyrrolo[1,2-c][1,3]benzodiazepines, Pyrrolo[2,1-c][1,4]benzo diazocin-6(5h)-Ones And 1,5,10,11-Tetrahydro-4h-Pyrrolo[2,3-c] [1,6]Benzodiazocin -4-ones with Potential Biological Interest", 2nd Eurasian Meeting on Heterocyclic Chemistry, "Heterocycles in Organic and Combinatorial Chemistry", Novgorod the Great, Russia, September 14–17, 2002, IL10.
4. N. Karousis, A. Kimbaris, K. Koriatopoulou, G. Rotas, S. Skoulika, G. Tsakonas, G. Varvounis, "Novel Routes to Pyrrole Containing Heterocycles", 9th International Conference on Pure and Applied Heterocyclic Chemistry, Sharm El-Sheikh, Egypt, December 11–14, 2004, KA-15, p. 25.
5. N. Karousis, K. Koriatopoulou, G. Rotas, S. Skoulika, G. Tsakonas, P. Tsoungas, G. Varvounis, "Versatile Syntheses of Novel Polycyclic Heterocycles Derived from 1-, 2- or 3-substituted Pyrroles and 2-hydroxy naphthaldehyde" 9th National Conference on "Bioactive Heterocycles and Drug Discovery Paradigm", Rajkot, Gujarat, India, January 8–10, 2005, IL-16, p. 59.
6. N. Karousis, K. Koriatopoulou, G. Tsakonas, K. Papavasileiou, T. Tzima, V. Melissas, A. Geronikaki, G. Varvounis, "Studies towards the synthesis of novel pyrrolobenzodiazocine ring system" 20th International Congress of Heterocyclic Chemistry, Palermo, Italy, July 31 –August 5, 2005, 1-PO81, p. 268.
7. T. Liaskopoulos, N. Karousis, S. Skoulika, A. Tshipis, P. Tsoungas, G. Varvounis, "Oxidation of 2-hydroxynaphthaldehyde hydrazones with NBS", 20th International Congress of Heterocyclic Chemistry, Palermo, Italy, July 31 –August 5, 2005, 4-PO94, p. 533.
8. N. Karousis, G. -E. Tsotsou, N. Ragoussis, N. Tagmatarchis, "Palladium Nanoparticles onto Carbon Nanotubes: Synthesis, Characterization and Catalytic Activity", 9th Greece-Cyprus Chemistry Conference, Larnaka, Cyprus, 2007 (oral presentation).

9. N. Karousis, K. Kostarelos, N. Tagmatarchis "Water Soluble Functionalized Carbon Nanotubes as Drug Delivery Systems", *4th International Workshop on Nanosciences & Nanotechnologies - NN07*, Thessaloniki, Greece, 2007 (oral presentation).
10. N. Karousis, G. E. Tsotsou, N. Ragoussis, N. Tagmatarchis, "Catalytic Activity of Surfactant-Solubilized Carbon Nanotubes Decorated with Palladium Nanoparticles", *18th European Conference on Diamond, Diamond-Like Materials, Carbon Nanotubes and Nitrides*, Berlin, Germany, 2007.
11. N. Karousis, T. Ichihashi, M. Yudasaka, S. Iijima, N. Tagmatarchis, "Decoration of Carbon Nanohorns with Palladium and Platinum Nanoparticles", *ChemOnTubes 2008 International Meeting on the Chemistry of Nanotubes: Science and Applications*, Zaragoza, Spain, 2008.
12. G. Charalambidis, A. Skondra, N. Karousis, S. Economopoulos, N. Tagmatarchis, A. Coutsolelos, "Synthesis of novel porphyrin-pyrene/ferrocene-single walled carbon nanotube triads for photovoltaic applications", *16th European Symposium on Organic Chemistry (ESOC)*, Prague, Czech Republic, 2009.
13. N. Karousis, N. Tagmatarchis, "Microwave Assisted Chemical Modification of C₆₀@SWNTs peapods", *10th Greece-Cyprus Chemistry Conference*, Heraclion, Greece, 2-4 July, 2009, (oral presentation).
14. G. Charalambidis, A. Skondra, K. Ladomenou, N. Karousis, S. P. Economopoulos, N. Tagmatarchis, A. G. Coutsolelos, "Synthesis of novel porphyrin based hybrid materials for photovoltaic applications" International Conference on Carbon Nanostructured Materials – Cnano'09, Santorini, Greece, 4-8 October, 2009.
15. N. Karousis, T. Ichihashi, M. Yudasaka, S. Iijima, N. Tagmatarchis, "Imidazolium Modified Carbon Nanohorns: Switchable Solubility and Stabilization of Metal Nanoparticles" International Conference on Carbon Nanostructured Materials – Cnano'09, Santorini, Greece, 4-8 October, 2009.
16. N. Karousis, G. Rotas, S. P. Economopoulos, G. Pagona, N. Tagmatarchis, "Multifunctional carbon-based nanostructured materials: Fullerenes, azafullerenes, nanotubes, nanohorns, peapods and graphene" Nano-TP, Scientific First Meeting, COST Action MP0901, BESSY II, Berlin, Germany, 18-19th March, 2010.
17. S. P. Economopoulos, N. Karousis, G. Rotas, N. Tagmatarchis, "Efficient exfoliation and covalent functionalization of graphene" MAM-10, 5th IUPAC-sponsored International Symposium on Macro- and Supramolecular Architectures and Materials, Ocho Rios, Jamaica. 10-15 August, 2010.
18. N. Karousis, K. Kobayashi, H. Shinohara, N. Tagmatarchis, "Removing the Outer Shells of Double-Walled Carbon Nanotubes" FSAS 2010 – Fullerene Silver Anniversary Symposium, Heraclion, Crete, Greece, 4-10 October, 2010.
19. N. Karousis, S. P. Economopoulos, Y. Iizumi, T. Okazaki, Z. Liu, K. Suenaga, N. Tagmatarchis, "Functionalization of C₆₀@SWCNTs "peapods" by microwave irradiation" FSAS 2010 – Fullerene Silver Anniversary Symposium, Heraclion, Crete, Greece, 4-10 October, 2010.
20. N. Karousis, T. Hasobe, N. Tagmatarchis, "Graphene Oxide – Porphyrin Antennae: Synthesis, Characterization and Photophysical Properties" FSAS 2010 – Fullerene Silver Anniversary Symposium, Heraclion, Crete, Greece, 4-10 October, 2010.
21. N. Tagmatarchis, N. Karousis, S. P. Economopoulos, Y. Iizumi, T. Okazaki, Z. Liu, K. Suenaga, "Covalent functionalization of peapods", *25th International Winterschool on Electronic Properties of Novel Materials (IWEPM 2011)*, Kirchberg, Austria, February 26-March 5, 2011.
22. D. Chronopoulos, N. Karousis, N. Tagmatarchis, "Revealing the inner walls by selective removal of the outer shells of functionalized double-walled carbon nanotubes" 8th International Conference on Nanosciences & Nanotechnologies (NN11) Thessaloniki, Greece, 12-15 July 2011.
23. N. Karousis, Y. Sato, K. Suenaga, N. Tagmatarchis, "Visualization of Conformational Adaptations of C₆₀-Fullerene Moieties Covalently Attached onto Aryl Functionalized Carbon Nanohorns" NanoteC11 Carbon

Nanoscience and Nanotechnology, Nantes, France, August 31st - September 3rd, 2011 (oral presentation).

24. N. Karousis, T. Hasobe, N. Tagmatarchis, "Soluble Functionalized Graphene Oxide Sheets with Porphyrin. Synthesis, Characterization and Photophysical Studies" 1st International Conference on BioInspired Materials for Solar Energy Utilization – IC BIOSOL 2011, Chania, Crete, Greece, September 12–17, 2011.
25. K. Kostikiadis, N. Karousis, N. Tagmatarchis, Y. Elemes, "Synthesis of Sulfur-Containing Dihydro-Pyrrolo [60]fullerene Derivatives. Comparison Between the Use of Conventional Heating and Microwave Irradiation" 12th Eurasia Conference on Chemical Sciences – EuAsC₂S-12, Corfu, Greece, April 16-21, 2012.
26. A. Vassilakopoulou, G. C. Papavassiliou, G. Pagona, N. Karousis, G. A. Mousdis, M. Vasileiadis, I. Koutselas, "Intensely Photoluminescent Materials Based on Hybrid Lead Halide Organic Semiconductors" XV International Symposium on Luminescence Spectrometry – ISLS12, Barcelona, Spain, June 19-22, 2012.
27. N. Karousis, T. Hasobe, J. Ortiz, Á. Sastre-Santos, K. Ohkubo, S. Fukuzumi, N. Tagmatarchis, "Graphene Hybrid Materials for Energy Conversion" Thirteenth International Conference on the Science and Application of Nanotubes – NT12, Brisbane, Australia, June 24-29, 2012.
28. D. Chronopoulos, N. Karousis, M. Tsakos, C. G. Kokotos, G. Kokotos, N. Tagmatarchis, "Fullerene-proline Dyads for Organocatalysis" 32nd European Peptide Symposium, Athens, Greece, September 2-7, 2012.
29. D. Chronopoulos, N. Karousis, M. Tsakos, C. G. Kokotos, G. Kokotos, N. Tagmatarchis, "Novel Carbon Nanotube – Proline Based Organocatalyst Hybrid Materials" 32nd European Peptide Symposium, Athens, Greece, September 2-7, 2012.
30. N. Karousis, J. Ortiz, A. Sastre-Santos, T. Hasobe, K. Ohkubo, S. Fukuzumi, N. Tagmatarchis, "Synthesis, Characterization and Photophysical Studies of a Zinc-Phthalocyanine–Graphene Hybrid Material" GrapHEL – A European Conference/Workshop on the Synthesis, Characterization and Applications of Graphene, Mykonos, Greece, September 27–30, 2012.
31. N. Karousis, T. Skaltsas, N. Tagmatarchis, "Novel aspects of chemically modified graphene" NanoTP: 3rd Annual Scientific Meeting, COST Action MP0901, Berlin, Germany, December 9-12, 2012.
32. N. Karousis, L. Martin-Gomis, K. Ohkubo, T. Hasobe, A. Sastre-Santos, S. Fukuzumi, N. Tagmatarchis "Perylenediimide-Graphene Donor-Acceptor Nanoensembles: Synthesis, Characterization and Photophysics" 2014 ECS and SMEQ Joint International Meeting, Cancun, Mexico, October 5-10, 2014 (Oral Presentation).

Publications

A. Peer-Reviewed International Journals (>2400 citations; h-index=17; Scopus ID: 23501892300)

1. **N. Karousis**, J. Liebscher, G. Varvounis, "Synthesis of (*E*)-3-(1*H*-Pyrrol-3-yl)-prop-2-ene Derivatives Using Organophosphorus Reagents", *Synthesis* 2006, 9, 1494–1498; <http://dx.doi.org/10.1055/s-2006-926426>.
2. G. Mountrichas, G. Pagona, G. Rotas, **N. Karousis**, S. Pispas, N. Tagmatarchis, "Methodologies for the Chemical Functionalization of Carbon Nanohorns", *Journal of Nanostructured Polymers and Nanocomposites* 2007, 4, 28–34.

3. **N. Karousis**, K. Koriatopoulou, G. Varvounis "Synthesis of 1-arylmethylpyrroles as useful intermediates for further chemical transformation", *Arkivoc* 2008 (2), 124–133; <https://www.arkat-usa.org/get-file/23011>.
4. G. Pagona, **N. Karousis**, N. Tagmatarchis, "Aryl diazonium functionalization of carbon nanohorns", *Carbon* 2008, *46*, 604–610; <http://dx.doi.org/10.1016/j.carbon.2008.01.007>.
5. J. Tumpene, **N. Karousis**, N. Tagmatarchis, B. Nordén, "Alignment of Carbon Nanotubes in Weak Magnetic Fields" *Angewandte Chemie International Edition* 2008, *47*, 5148–5152; <http://dx.doi.org/10.1002/ange.200801548>.
6. **N. Karousis**, G.–E. Tsotsou, F. Evangelista, P. Rudolf, N. Ragoussis, N. Tagmatarchis, "Carbon Nanotubes Decorated with Palladium Nanoparticles: Synthesis, Characterization and Catalytic Activity", *The Journal of Physical Chemistry C* 2008, *112*(35), 13463–13469; <http://dx.doi.org/10.1021/jp802920k>.
7. **N. Karousis**, H. Ali-Boucetta, K. Kostarelos, N. Tagmatarchis, "Aryl-Derivatized, Water Soluble Functionalized Carbon Nanotubes for Biomedical Applications", *Materials Science and Engineering B* 2008, *152* (1-3), 8–11; <http://dx.doi.org/10.1016/j.mseb.2008.06.002>.
8. **N. Karousis**, G.-E. Tsotsou, N. Ragoussis, N. Tagmatarchis "Catalytic Activity of Surfactant Solubilised Multi-Walled Carbon Nanotubes Decorated with Palladium Nanoparticles", *Diamond and Related Materials* 2008, *17*, 1582–1585; <http://dx.doi.org/10.1016/j.diamond.2008.03.019>.
9. K. Koriatopoulou, **N. Karousis**, G. Varvounis, "Novel synthesis of the pyrrolo[2,1-c][1,4]benzodiazocine ring system via a Dieckmann condensation", *Tetrahedron* 2008, *64*, 10009–10013; <http://dx.doi.org/10.1016/j.tet.2008.07.029>.
10. G. Pagona, G. Mountrichas, G. Rotas, **N. Karousis**, S. Pispas, N. Tagmatarchis, "Properties, Applications and Functionalization of Carbon Nanohorns", *International Journal of Nanotechnology* 2009, *6*, 1/2, 176–195; <http://dx.doi.org/10.1504/ijnt.2009.021715>.
11. **N. Karousis**, T. Ichihashi, M. Yudasaka, S. Iijima, N. Tagmatarchis, "Decoration of Carbon Nanohorns with Palladium and Platinum Nanoparticles", *Journal of Nanoscience and Nanotechnology* 2009, *9*, 6047–6054; <http://dx.doi.org/10.1166/jnn.2009.1550>.
12. **N. Karousis**, R. M. Papi, A. Siskos, P. Vakalopoulou, P. Glezakos, Y. Sarigiannis, G. Stavropoulos, D. A. Kyriakidis, N. Tagmatarchis, "Peptidomimetic-functionalized carbon nanotubes with antitrypsin activity", *Carbon* 2009, *47*, 3550–3558; <http://dx.doi.org/10.1016/j.carbon.2009.08.025>.
13. **N. Karousis***, S. P. Economopoulos, E. Sarantopoulou, N. Tagmatarchis, "Porphyrin counter anion in imidazolium-modified graphene-oxide" *Carbon*, 2010, *48*, 854–860; <http://dx.doi.org/10.1016/j.carbon.2009.10.039>.
14. **N. Karousis***, T. Ichihashi, S. Chen, H. Shinohara, M. Yudasaka, S. Iijima, N. Tagmatarchis, "Imidazolium modified carbon nanohorns: Switchable solubility and stabilization of metal nanoparticles" *Journal of Materials Chemistry*, 2010, *20*, 2959–2964; <http://dx.doi.org/10.1039/b925169c>.
15. **N. Karousis***, N. Tagmatarchis, D. Tasis, "Current progress on the chemical modification of carbon nanotubes", *Chemical Reviews*, 2010, *110* (9), 5366–5397; <http://dx.doi.org/10.1021/cr100018g>.
16. **N. Karousis**, K. Kobayashi, H. Shinohara, N. Tagmatarchis, "Chemically-induced thermally-controlled peel-off of the external walls of double-walled carbon nanotubes", *Small*, 2010, *6* (24), 2826–2831; <http://dx.doi.org/10.1002/smll.201001154>.

17. **N. Karousis**, S. P. Economopoulos, Y. Iizumi, T. Okazaki, Z. Liu, K. Suenaga, N. Tagmatarchis, "Microwave assisted covalent functionalization of C₆₀@SWCNT peapods", *Chemical Communications*, 2010, 46 (48), 9110–9112; <http://dx.doi.org/10.1039/C0CC04108D>.
18. **N. Karousis**, A. S. D. Sandanayaka, T. Hasobe, S. P. Economopoulos, E. Sarantopoulou, N. Tagmatarchis, "Graphene Oxide with Covalently Linked Porphyrin Antennae: Synthesis, Characterization and Photophysical Properties", *Journal of Materials Chemistry*, 2011, 21, 109–117; <http://dx.doi.org/10.1039/C0JM00991A>.
19. **N. Karousis**^{*}, T. Ichihashi, M. Yudasaka, S. Iijima, N. Tagmatarchis, "Microwave-assisted functionalization of carbon nanohorns via [2+1] nitrenes cycloaddition", *Chemical Communications*, 2011, 47 (5), 1604–1606; <http://dx.doi.org/10.1039/c0cc03101a>.
20. S. P. Economopoulos, **N. Karousis**, G. Rotas, G. Pagona, N. Tagmatarchis, "Microwave-assisted functionalization of carbon nanostructured materials", *Current Organic Chemistry*, 2011, 15 (8), 1121–1132; <http://dx.doi.org/10.2174/138527211795203031>.
21. G. C. Papavassiliou, G. Pagona, **N. Karousis**, G. A. Mousdis, I. Koutselas, A. Vassilakopoulou, "Nanocrystalline/Microcrystalline Materials Based on Lead-Halide Units", *Journal of Materials Chemistry*, 2012, 22, 8271–8280; <http://dx.doi.org/10.1039/C2JM15783G>.
22. **N. Karousis**, Y. Sato, K. Suenaga, N. Tagmatarchis, "Direct evidence for covalent functionalization of carbon nanohorns by high-resolution electron microscopy imaging of C₆₀ conjugated onto their skeleton", *Carbon*, 2012, 50, 3909–3914; <http://dx.doi.org/10.1016/j.carbon.2012.04.035>.
23. T. Skaltsas, **N. Karousis**, H-J. Yan, C-R. Wang, S. Pispas, N. Tagmatarchis, "Graphene exfoliation in organic solvents and switching solubility in aqueous media with the aid of amphiphilic block copolymers", *Journal of Materials Chemistry*, 2012, 22, 21507–21512; <http://dx.doi.org/10.1039/c2jm33245k>.
24. **N. Karousis**, J. Ortiz, K. Ohkubo, T. Hasobe, S. Fukuzumi, A. Sastre-Santos, N. Tagmatarchis, "Zinc Phthalocyanine–Graphene Hybrid Material for Energy Conversion: Synthesis, Characterization, Photophysics and Photoelectrochemical Cell Preparation", *Journal of Physical Chemistry C*, 2012, 116, 20564–20573; <http://dx.doi.org/10.1021/jp305783v>.
25. S. P. Economopoulos, A. Skondra, K. Ladomenou, **N. Karousis**, G. Charalambidis, A. G. Coutsolelos, N. Tagmatarchis, "New hybrid materials with porphyrin-ferrocene and porphyrin-pyrene covalently linked to single-walled carbon nanotubes", *RSC Advances*, 2013, 3, 5539–5546; <http://dx.doi.org/10.1039/c3ra40310f>.
26. G. C. Papavassiliou, G. Pagona, G. A. Mousdis, **N. Karousis**, "Enhanced phosphorescence from nanocrystalline/microcrystalline materials based on (CH₃NH₃)(1-naphthylmethylammonium)₂Pb₂Cl₇ and similar compounds", *Chemical Physics Letters*, 2013, 570, 80–84; <http://dx.doi.org/10.1016/j.cplett.2013.03.041>.
27. D. Chronopoulos, **N. Karousis**, T. Ichihashi, M. Yudasaka, S. Iijima, N. Tagmatarchis, "Benzene cycloaddition onto carbon nanohorns", *Nanoscale*, 2013, 5, 6388–6394; <http://dx.doi.org/10.1039/c3nr01755a>.
28. D. Chronopoulos, **N. Karousis**, Nikos Tagmatarchis, "Immobilized CdS Nanoparticles on Poly(amidoamine)-Functionalized MWCNTs", *ECS Journal of Solid State Science and Technology*, 2013, 2, M3023–M3027; <http://dx.doi.org/10.1149/2.004310jss>.
29. G. C. Papavassiliou, G. A. Mousdis, G. Pagona, **N. Karousis**, M.-S. Vidali, "Room temperature enhanced blue–green, yellow–orange and red phosphorescence from some compounds of the type

- (CH₃NH₃)_{n-1}(1-naphthylmethyl ammonium)₂Pb_n(Cl_xBr_{1-x})_{3n+1} (with n=1, 2 and 0≤x≤1) and related observations from similar compounds." *Journal of Luminescence*, 2014, 149, 287-291; <http://dx.doi.org/10.1016/j.jlumin.2014.01.050>.
30. D. D. Chronopoulos, **N. Karousis**, S. Zhao, Q. Wang, H. Shinohara, N. Tagmatarchis, "Photocatalytic application of nanosized CdS immobilized onto functionalized MWCNTs", *Dalton Transactions*, 2014, 43, 7429-7434; <http://dx.doi.org/10.1039/c3dt53338g>.
 31. Y. Maeda, M. Kimura, C. Ueda, M. Yamada, T. Kikuchi, M. Suzuki, W.-W. Wang, N. Mizorogi, **N. Karousis**, N. Tagmatarchis, T. Hasegawa, M. M. Olmstead, A. L. Balch, S. Nagase, T. Akasaka, "Isolation and Characterization of [5,6]-Pyrrolidino-Sc₃N@C₈₀ Diastereomers", *Chemical Communications*, 2014, 50, 12552-12555; <http://dx.doi.org/10.1039/c4cc04946b>.
 32. D. D. Chronopoulos, M. Tsakos, **N. Karousis**, C. G. Kokotos, N. Tagmatarchis, "Fullerene-proline hybrids: Synthesis, characterization and organocatalytic properties in aldol reactions", *Materials Letters*, 2014, 137, 343-346; <http://dx.doi.org/10.1016/j.matlet.2014.09.031>.
 33. T Skaltsas, **N. Karousis**, S Pispas, N Tagmatarchis, "Photocatalytic applications with CdS•block copolymer/exfoliated graphene nanoensembles: Hydrogen generation and degradation of Rhodamine B", *Nanotechnology*, 2014, 25, 445404 (7pp); <http://dx.doi.org/10.1088/0957-4484/25/44/445404>.
 34. G. C. Papavassiliou, M. S. Vidali, G. Pagona, G. A. Mousdis, **N. Karousis**, I. Koutselas, "Effects of organic moieties on the photoluminescence spectra of perovskite-type tin bromide based compounds" *Journal of Physics and Chemistry of Solids* 2015, 79, 1-6; <http://dx.doi.org/10.1016/j.jpics.2014.11.018>.
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B. Book Chapters

1. G. Varvounis and **N. Karousis**, "Functions Containing Two Halogens and Two Other Heteroatom Substituents", In *Comprehensive Organic Functional Group Transformations II* (COFGT-II), A. R. Katritzky, R. J. K. Taylor, E. F. V. Scriven (eds.), Elsevier Oxford. 2005, Chapter 6.08, p. 271-294 .
2. **N. Karousis**, S. Economopoulos and N. Tagmatarchis, "Functionalization of Graphene", in *Handbook of Carbon Nano Materials*, Volume 4, *Materials and Fundamental Applications*, F. D'Souza, K. M. Kadish (eds), World Scientific 2012, Chapter 1, p. 1-54; http://dx.doi.org/10.1142/9789814401449_0008.

3. A. Stergiou, **N. Karousis** and D. Tasis, "Non-covalent Methodologies for the Preparation of Metal-free Nanocarbons for Catalysis" in *Metal-free Functionalized Carbons in Catalysis*, A. Villa, N. Dimitratos (Eds.) 2018, Chapter 02, pp. 29-66; <https://doi.org/10.1039/9781788013116-00029>

Professional Affiliations & Activities

- Reviewer for international scientific research journals in the fields of organic chemistry, physical chemistry and materials science for the following publishers: American Chemical Society (ACS Applied Materials & Interfaces, Chemical Reviews, Journal of Physical Chemistry Letters), Royal Society of Chemistry (Chemical Communications, Chemical Society Reviews, Journal of Materials Chemistry, Nanoscale, RSC Advances), Wiley (Angewandte Chemie, Chemistry–A European Journal), Elsevier (Applied Surface Science, Carbon, Chemical Engineering Journal, Materials Chemistry and Physics, Journal of Luminescence), Springer (Nanoscale Research Letters), Bentham Science Publishers (Current Organic Chemistry) and others.
- Reviewer of scientific research proposals for Polish National Science Center
- Publication 16 (*Small*, 2010, 6, 2826) is featured on the Inside Cover of issue 24 of *Small*, 2010.
- Publication 17 (*Chem. Commun.*, 2010, 46, 9110) is featured on the Inside Cover of issue 48 of *Chem. Commun.*, 2010.
- Special Invited talk entitled "Graphene: the material of the new era" in the course "Science Society – Special Educational Events – 2nd Cycle of Speeches: The evolution of materials – The contribution of materials to the development of human civilization – Past, Present and Future held in National Hellenic research Foundation (Feb 2015) (<http://media.ekt.gr/grafenio-to-thavmatourgo-iliko-tis-neas-epochis>)
- Secretariat member of the 3rd Conference of post-graduate students of Chemistry Department of University of Ioannina (Ioannina, Greece, 1997).
- Secretariat member of the International Conference on Carbon Nanostructured Materials – Cnano'09 (Santorini, Greece, 2009).
- Secretariat member of the Fullerene Silver Anniversary Symposium - "FSAS-2010" (Crete, Greece, 2010).
- Member of the Association of Greek Chemists (since 1995).
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