

NIKOLAOS M. KAROUSIS

PUBLICATIONS –November 2013

A. Ph.D. THESIS

1. “Synthesis and reactivity of 1-aroyl- and 1-aroylmethylenepyrroles”, Chemistry Department, University of Ioannina, Greece (3/2003).

B. BOOK CHAPTERS

1. “Functions Containing Two Halogens and Two Other Heteroatom Substituents”, G. Varvounis and N. Karousis, 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. “Functionalization of Graphene”, N. Karousis, S. Economopoulos and N. Tagmatarchis, 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.

C. PAPERS IN REFEREED JOURNALS

1. “Synthesis of (*E*)-3-(1*H*-Pyrrol-3-yl)prop-2-ene Derivatives Using Organophosphorous Reagents”, N. Karousis, J. Liebscher and G. Varvounis, *Synthesis* **9**, 1494 (2006).
2. “Synthesis of 1-aroylmethylpyrroles as useful intermediates for further chemical transformation”, N. Karousis, K. Koriatopoulou and G. Varvounis, *Arkivoc* **2**, 124 (2008).
3. “Aryl diazonium functionalization of carbon nanohorns”, G. Pagona, N. Karousis and N. Tagmatarchis, *Carbon* **46**, 604 (2008).
4. “Alignment of Carbon Nanotubes in Weak Magnetic Fields”, J. Tumpane, N. Karousis, N. Tagmatarchis and B. Nordén, *Angewandte Chemie International Edition* **47**, 5148 (2008).
5. “Catalytic Activity of Surfactant Solubilised Multi-Walled Carbon Nanotubes Decorated with Palladium Nanoparticles”, N. Karousis, G.-E. Tsotsou, N. Ragoussis and N. Tagmatarchis, *Diamond and Related Materials* **17**, 1582 (2008).

6. "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, *The Journal of Physical Chemistry C* **112**, 13463 (2008).
7. "Aryl-Derivatized, Water Soluble Functionalized Carbon Nanotubes for Biomedical Applications", N. Karousis, H. Ali-Boucetta, K. Kostarelos and N. Tagmatarchis, *Materials Science and Engineering B* **152**, 8, (2008).
8. "Novel synthesis of the pyrrolo[2,1-c][1,4]benzodiazocine ring system via a Dieckmann condensation", K. Koriatopoulou, N. Karousis and G. Varvounis, *Tetrahedron* **64**, 10009 (2008).
9. "Methodologies for the Chemical Functionalization of Carbon Nanohorns", G. Mountrichas, G. Pagona, G. Rotas, N. Karousis, S. Pispas and N. Tagmatarchis, *Journal of Nanostructured Polymers and Nanocomposites* **4**, 28 (2008).
10. "Properties, Applications and Functionalization of Carbon Nanohorns", G. Pagona, G. Mountrichas, G. Rotas, N. Karousis, S. Pispas and N. Tagmatarchis, *International Journal of Nanotechnology* **6**, 176 (2009).
11. "Decoration of Carbon Nanohorns with Palladium and Platinum Nanoparticles", N. Karousis, T. Ichihashi, M. Yudasaka, S. Iijima and N. Tagmatarchis, *Journal of Nanoscience and Nanotechnology* **9**, 6047 (2009).
12. "Peptidomimetic-functionalized carbon nanotubes with antitrypsin activity", N. Karousis, R. M. Papi, A. Siskos, P. Vakalopoulou, P. Glezakos, Y. Sarigiannis, G. Stavropoulos, D. A. Kyriakidis, N. Tagmatarchis, *Carbon* **47**, 3550 (2009).
13. "Porphyrin counter anion in imidazolium-modified graphene-oxide", N. Karousis, S. P. Economopoulos, E. Sarantopoulou, N. Tagmatarchis, *Carbon* **48**, 854 (2010).
14. "Imidazolium modified carbon nanohorns: Switchable solubility and stabilization of metal nanoparticles" N. Karousis, T. Ichihashi, S. Chen, H. Shinohara, M. Yudasaka, S. Iijima, N. Tagmatarchis, *Journal of Materials Chemistry* **20**, 2959 (2010).
15. "Current progress on the chemical modification of carbon nanotubes", N. Karousis, N. Tagmatarchis, D. Tasis, *Chemical Reviews* **110**, 5366 (2010).
16. "Chemically-induced thermally-controlled peel-off of the external walls of double-walled carbon nanotubes", N. Karousis, K. Kobayashi, H. Shinohara, N. Tagmatarchis, *Small* **6**, 2826 (2010).
17. "Microwave assisted covalent functionalization of C₆₀@SWCNT peapods", N. Karousis, S. P. Economopoulos, Y. Iizumi, T. Okazaki, Z. Liu, K. Suenaga, N. Tagmatarchis, *Chemical Communications* **46**, 9110 (2010).

18. "Graphene Oxide with Covalently Linked Porphyrin Antennae: Synthesis, Characterization and Photophysical Properties", N. Karousis, A. S. D. Sandanayaka, T. Hasobe, S. P. Economopoulos, E. Sarantopoulou, N. Tagmatarchis, *Journal of Materials Chemistry* **21**, 109 (2011).
19. "Microwave-assisted functionalization of carbon nanohorns via [2+1] nitrenes cycloaddition", N. Karousis, T. Ichihashi, M. Yudasaka, S. Iijima, N. Tagmatarchis, *Chemical Communications*, **47**, 1604 (2011).
20. "Microwave-assisted functionalization of carbon nanostructured materials", S. P. Economopoulos, N. Karousis, G. Rotas, G. Pagona, N. Tagmatarchis, *Current Organic Chemistry* **15**, 1121 (2011).
21. "Nanocrystalline/Microcrystalline Materials Based on Lead-Halide Units", G. C. Papavassiliou, G. Pagona, N. Karousis, G. A. Mousdis, I. Koutselas, A. Vassilakopoulou, *Journal of Materials Chemistry*, **22**, 8271 (2012).
22. "Direct evidence for covalent functionalization of carbon nanohorns by high-resolution electron microscopy imaging of C₆₀ conjugated onto their skeleton", N. Karousis, Y. Sato, K. Suenaga, N. Tagmatarchis, *Carbon*, **50**, 3909 (2012).
23. "Graphene exfoliation in organic solvents and switching solubility in aqueous media with the aid of amphiphilic block copolymers", T. Skaltsas, N. Karousis, H-J. Yan, C-R. Wang, S. Pispas, N. Tagmatarchis, *Journal of Materials Chemistry*, **22**, 21507 (2012).
24. "Zinc Phthalocyanine-Graphene Hybrid Material for Energy Conversion: Synthesis, Characterization, Photophysics and Photoelectrochemical Cell Preparation", N. Karousis, J. Ortiz, K. Ohkubo, T. Hasobe, S. Fukuzumi, A. Sastre-Santos, N. Tagmatarchis, *Journal of Physical Chemistry C*, **116**, 20564 (2012).
25. "New hybrid materials with porphyrin-ferrocene and porphyrin-pyrene covalently linked to single-walled carbon nanotubes", S. P. Economopoulos, A. Skondra, K. Ladomenou, N. Karousis, G. Charalambidis, A. G. Coutsolelos, N. Tagmatarchis, *RSC Advances*, **3**, 5539 (2013).
26. "Enhanced phosphorescence from nanocrystalline/microcrystalline materials based on (CH₃NH₃)(1-naphthylmethylammonium)₂Pb₂Cl₇ and similar compounds", G. C. Papavassiliou, G. Pagona, G. A. Mousdis, N. Karousis, *Chemical Physics Letters*, **570**, 80 (2013).
27. "Benzyne cycloaddition onto carbon nanohorns", D. Chronopoulos, N. Karousis, T. Ichihashi, M. Yudasaka, S. Iijima, N. Tagmatarchis, *Nanoscale*, **5**, 6388 (2013).
28. "Immobilized CdS Nanoparticles on Poly(amidoamine)-Functionalized MWCNTs", D.

Chronopoulos, N. Karousis, Nikos Tagmatarchis, ECS Journal of Solid State Science and Technology, **2**, M3023 (2013).