

Full list of Peer-Reviewed Publications (IF: impact factor; cit.: number of citations, from Web of Science)

Professorial Research Work at TCD:

58. Natali M. and Giordani S.* (2012) "Molecular switches as photocontrollable "smart" receptors" *Chem. Soc. Rev.* 41 (10), 4010 - 4029 (IF=28.76)
57. Di Crescenzo A., Kopf I., Pieraccini S., Masiero S., Del Canto E., Spada G. P., Giordani S.* and Fontana A. * (2012) "Lipophilic guanosine derivatives as carbon nanotube dispersing agents" *Carbon* 50 (12) 4663-4672 (IF=5.38)
56. Del Canto E., Natali M., Movia D. and Giordani S.* (2012) "Photo-controlled Uptake and Release of Zinc Metal Ions by Spiropyran receptors anchored to Single-Walled Carbon Nanotubes" *Phys. Chem. Chem. Phys.* 14 (17), 6034 – 6043 (IF=3.57)
55. Natali M. and Giordani S.* (2012) "Spiropyran-based transition metal receptors: the curious case of copper" *Organic & Biomolecular Chemistry* 10, 1162 - 1171 (IF=3.70, cit 1)
54. Al-Altar N., Kopf I., Kennedy E., Flavin K., Giordani S. and Rice J. (2012) "Surface-Enhanced Raman Scattering from small numbers of purified and oxidised single-walled carbon nanotubes" *Chemical Physics Letters* 535, 146-151 (IF=2.34)
53. Flavin K., Kopf I., Murtagh J., Grossi M., O'Shea D.* and Giordani S.* (2012) "Excited state on/off switching of a boron azadipyrromethene single-wall carbon nanotube conjugate" *Supramol. Chem.* 24, 23-28 (IF: 2.15) **Special issue** dedicated to the Sixth International Symposium on Macrocyclic and Supramolecular Chemistry
52. Movia D. and Giordani S.* (2012) "Toxicity of carbon nanotubes" *Handbook of Green Chemistry – Green Processes* Volume 8 – Green Nanoscience, First edition. Edited by A. Perosa and M. Selva Wiley - VCH, Weinheim, Germany, 7, 175 - 216
51. Movia D., Prina Mello A., Bazou D., Volkov Y.* and Giordani S.* (2011) "Integration of 3D Cellular Models in the Toxicity Screening of Single-Walled Carbon Nanotubes" *ACS Nano* 5, 9278–9290 (IF=11.42)
50. Flavin K., Lawrence K., Bartelmess J., Tasior M., Navio C., Bittencourt C., O'Shea D., Guldi D.M. and Giordani S.* (2011) "Synthesis and characterization of novel boron azadipyrromethene single-walled carbon nanotube electron donor-acceptor conjugates" *ACS Nano* 5, 1198–1206 (IF=11.42, cit. 10)
49. Flavin K., Kopf I., Del Canto E., Navio C., Bittencourt C. and Giordani S.* (2011) "Controlled carboxylic acid introduction: a route to highly purified oxidized single walled carbon nanotubes" *J. Mat. Chem.* 21, 17881 – 17887 (IF=5.97, cit 3)
48. Del Canto E., Flavin K., Movia D., Navio C., Bittencourt C. and Giordani S.* (2011) "A Critical Investigation of Defect Site Functionalization on Single Walled Carbon Nanotubes" *Chem. Mater.* 23, 67-74 (IF=7.29, cit 7)
47. Del Canto E., Flavin K., Movia D. and Giordani S.* (2011) "Oxidized Single-Walled Carbon Nanotubes: removal of carbonaceous functionalized material by washing with solvents or base", *MRS Proceedings*, 1362, mrss11-1362-qq09-44 doi:10.1557/opl.2011.1085
46. Soldi L., Cullen R.J., Jayasundara D., Scanlan E.M., Giordani S. and Colavita P.E. (2011) "Photochemical reaction of thiols on highly ordered pyrolytic graphite" *J. Phys. Chem. C*, 115, 10196-10204 (IF=4.81, cit. 2)
45. Di Crescenzo A., Germani R., Del Canto E., Giordani S., Savelli G. and Fontana A. (2011) "Effect of surfactant structure on carbon nanotube sidewalls adsorption" *Eur. J. Org. Chem.* 5641–5648 (IF=3.33) **Special issue** dedicated to Professor Scorrano
44. Di Crescenzo A., Aschi M., Del Canto E., Giordani S., Demurtas D. and Fontana A. (2011)

“Structural Modifications of Ionic Liquid Surfactants for improving the Capability to Disperse Single-Walled Carbon Nanotubes in Water: an Experimental and Theoretical Study” *Phys Chem Chem Phys*, 13, 11373-11383 (IF=3.57, cit. 1)

43. Mhuircheartaigh E. M., Giordani S., MacKernan D., King S.M., Rickard D., Val Verde L.M., Senge M.O. and Blau W. (2011) “Molecular Engineering of Nonplanar Porphyrin and Carbon Nanotube Assemblies- a Linear and Nonlinear Spectroscopic and Modeling Study” *J. Nanotech.* Article ID 745202, 12 pages, DOI:10.1155/2011/745202

42. Thakur G., Micic M., Yang Y., Li W., Movia D., Giordani S., Zhang H. and Leblanc R. (2011) “Conjugated quantum dots inhibit amyloid fibrillation process” *International Journal of Alzheimer's Disease 2011*, 502386, 1-15

41. Movia D., Del Canto E. and Giordani S.* (2010) “Purified and Oxidized Single-Walled Carbon Nanotubes as robust near-IR fluorescent probes for molecular imaging” *J. Phys. Chem. C*, 114, 18407-18413 (IF=4.81; cit. 9)

40. Del Canto E., Flavin K., Natali M., Perova T. and Giordani S.* (2010) “Functionalization of Single Walled Carbon Nanotubes with Optically Switchable Spiroyrans” *Carbon* 48, 2815-2824 (IF=5.86; cit. 8)

39. Flavin K., Chaur N., Echegoyen L. and Giordani S.* (2010) “Functionalisation of multilayer fullerenes (carbon nano-onions) using diazonium compounds and ‘Click chemistry’” *Org. Lett.* 12, 840- 843 (IF=5.4; cit. 10)

38. Movia D., Prina-Mello A., Volkov Y. and Giordani S.* (2010) “Determination of spiropyran cytotoxicity by High Content Screening and Analysis for safe application in bio-nanosensing” *Chem. Res. Toxicol.* 23, 1459-1466 (IF=3.78; cit. 6)

37. Natali M., Aakeroy C.B., Desper J. and Giordani S.* (2010) “The role of metal ions and counterions in the switching behavior of a carboxylic acid functionalized spiropyran” *Dalton Trans.* 39, 8269 – 8277 (IF=3.84; cit. 8)

36. Natali M., Soldi L. and Giordani S.* (2010) “A photoswitchable Zn(II) selective spiropyran-based sensor” *Tetrahedron* 66, 7612-7617 (IF=3.02; cit. 8)

35. Aakeroy C.B., Hurley E.P., Desper J., Natali M., Douglawi A. and Giordani S.* (2010) “The balance between closed and open forms of spiropyran in the solid state” *Cryst. Eng. Commun.* 12, 1027-1033 (IF=3.82; cit. 7)

34. Finnigan E.M., Giordani S., Senge M.O. and McCabe T. (2010) “Structural, spectroscopic and anion binding properties of 5,10-porphodimethenes, an unusual class of calixphyrins” *J. Phys. Chem. A* 114, 2464–2470 (IF=2.95; cit. 3)

33. Movia D., Del Canto E. and Giordani S.* (2009) “Spectroscopy of Single-Walled Carbon Nanotubes in Aqueous Surfactant Dispersion” *Phys. Stat. Sol. B* 246, 2707 (IF=1.3; cit. 5)

32. Singh P., Campidelli S., Giordani S., Bonifazi D., Bianco A. and Prato M. (2009) “Organic Functionalisation and Characterisation of Single-Walled Carbon Nanotubes” *Chem. Soc. Rev.* 38, 2214- 2230 (IF=28.76; cit. 108)

31. Bianco A., Sainz R., Li S., Dumortier H., Lacerda L., Kostarelos K., Giordani S. and Prato M. (2008) “Biomedical applications of functionalised carbon nanotubes” *Medicinal Chemistry and pharmacological potential of fullerenes and carbon nanotubes*, Series: Carbon Materials: Chemistry and Physics, Vol. 1, F. Cataldo and T. Da Ros, Springer, 2008, 23-50 (cit. 4)

Postdoctoral Research Work at Univ. of Trieste:

30. Giordani S., Colemer J-F., Cattaruzza F., Alfonsi J., Meneghetti M., Prato M. and Bonifazi D. (2009) “Multifunctional Hybrid Materials Composed of [60]Fullerene-based Functionalized-Single Walled Carbon Nanotubes” *Carbon*, 47, 578-588 (IF=5.86; cit. 23)

29. Cellot G., Cilia E., Cipollone S., Rancic V., Sucapane A., Giordani S., Gambazzi L., Markram H., Grandolfo M., Scaini D., Gelain F., Casalis L., Prato M., Giugliano M. and Ballerini L. (2009) "Carbon nanotubes direct interactions with neuronal membranes ignite post spike excitability" *Nature Nanotechnology*, 4, 126-133 (IF=27.27; cit. 77) **Featured in Nature Nanotechnology News and Views**

28. Brunetti F.G., Herrero M.A., Muñoz J.M., Giordani S., Díaz-Ortiz A., Filippone S., Ruaro G., Meneghetti M., Prato M. and Vasquez E. (2007) "Reversible microwave-assisted cycloaddition of aziridines to carbon nanotubes" *J. Am. Chem. Soc.* 129, 14580-14581 (IF=9.91; cit. 43)

27. Marega R., Aroulmoji V., Dinon F., Vaccari L., Giordani S., Bianco A., Murano E. and Prato M. (2009) "Diffusion-Ordered NMR Spectroscopy (DOSY) as a Promising Method to Elucidate the Structural Modifications of Functionalized Carbon Nanotubes" *J. Am. Chem. Soc.* 131, 9086-9093 (IF=9.91; cit. 15)

26. Sui X-M., Giordani S., Prato M. and Wagner H.D. (2009) "Effect of carbon nanotube surface modification on dispersion and structural properties of electrospun fibers" *App. Phys. Lett.* 95, 233113 (IF=3.6; cit. 11)

Postdoctoral Research Work at TCD:

25. Bergin S. D., Nicolosi V., Streich P., Giordani S., Sun Z., Windle A. H., Ryan P., Niraj N.P.P, Wang Z.T., Carpenter L., Blau W. J., Boland J.J., Hamilton, J. P. and Coleman J. N. (2008) "Spontaneous exfoliation of single-walled carbon nanotubes" *Adv. Mater.* 20, 1876-1881 (IF=13.88; cit. 98) **Featured in Science and C&E News**

24. Triulzi R., Micic M., Orbulescu J., Giordani S., Mueller B. and Leblanc R. M. (2008) "Antibody-gold quantum dot-PAMAM dendrimer complex as an immunoglobulin immunoassay" *Analyst*, 133, 667-672 (IF=3.9; cit. 14)

23. Rickard D., Giordani S., Blau W. J. and Coleman J. N. (2008) "Quantifying the contributions of inner-filter, re-absorption and aggregation effects in the photoluminescence of high-concentration conjugated polymer solutions" *J. Luminescence*, 128, 31-40 (IF=1.4; cit. 9)

22. Mhuirheartaigh E. N., Blau W.J., Prato M. and Giordani S.* (2007) "Spectroscopic changes induced by sonication of porphyrin-carbon nanotube composites in chlorinated solvents" *Carbon*, 45, 2665-2671 (IF=5.86; cit. 11)

21. Mhuirheartaigh E. N., Blau W. J., Prato M. and Giordani S.* (2007) "Sonication of porphyrin-nanotube composites: a cautionary tale" *Phys. Stat. Sol. B*, 244, (11), 4227-4230 (IF=1.3; cit. 2)

20. Bergin S.D., Nicolosi V., Giordani S., de Gromard A., Carpenter L., Blau W. J. and Coleman J. N. (2007) "Exfoliation in ecstasy: liquid crystal formation and chirality dependent debundling for single walled nanotubes in the liquid drug γ -butyrolactone" *Nanotechnology*, 18, (45), Art. No. 455705 (IF=3.98; cit.28)

19. Triulzi R., Micic M., Giordani S., Serry M., Chiou W. and Leblanc R. M. (2006) "Immunoassay Based on a Photoluminescence Quenching of the Antibody-conjugated PAMAM-Dendrimer-Gold Quantum Dot Complex" *Chem. Comm.* 48, 5068-5070 (IF=6.17; cit. 42) **Featured in Biophotonics International**

18. Mhuirheartaigh E. N., Giordani S. and Blau W. J. (2006) "Linear and non-linear optical characterization of tetraphenylporphyrin – carbon nanotube composites in chloroform" *J. Phys. Chem. B*, 110 (46), 23136-23141 (IF=4.4; cit. 13)

17. Giordani S., Bergin S.D., Nicolosi V., Lebedkin S., Kappes M., Blau W. J. and Coleman J. N. (2006) "Debundling of single-wall nanotubes by dilution: observation of large populations of individual nanotubes in amide solvent dispersions" *J. Phys. Chem. B* 110, (32) 15708-15718 (IF=3.67; cit. 168)

16. Giordani S.*, Bergin S.D., Nicolosi V., Lebedkin S., Blau W. J. and Coleman J. N. (2006)

“Fabrication of stable dispersions containing up to 70% individual carbon nanotubes in a common organic solvent” *Phys. Stat. Sol. B* 243 (13), 3058-3062 (IF=1.3; cit. **26**)

15. Giordani S.*, Bergin S.D., Drury A., Mhuirheartaigh E.N., Coleman J.N. and Blau W. (2006) “Effect of solvent and dispersant on the bundle dissociation of single-wall carbon nanotube” *NATO Science Series Carbon Nanotubes: From Basic Research To Nanotechnology* Ed. V.N. Popov and P. Lambin, Kluwer Acad. Publ. Springer Netherlands 222, 211-212

14. Giordani S.*, Bergin S., Drury A., Mhuirheartaigh E.N., Coleman J.N. and Blau W. (2005) “Effect of dispersant on the bundle dissociation of single-wall carbon nanotube” *Proceedings of the SPIE-The International Society for Optical Engineering* 5842, 42-49

13. Bergin S., Giordani S., Mac Kernan D., Coleman J.N. and Blau W. (2005) “Characterisation of Single-walled Carbon Nanotube Bundle Dissociation in Amide Solvents” *AIP Conf. Proc.*, 786, 240-243

12. Giordani S.*, Bergin S., Drury A., Mhuirheartaigh E.N., Coleman J.N. and Blau W. (2005) “Effect of Dispersants on the Bundle Dissociation of Single-Wall Carbon Nanotube” *AIP Conf. Proc.*, 786, 232-235

Graduate Research Work at Univ. of Miami:

11. Tomasulo M., Giordani S., Raymo F.M. (2005) “Fluorescence Modulation in Polymer Bilayers Containing Fluorescent and Photochromic Dopants” *Adv. Funct. Mat.* 15, 787-794 (IF=**10.18**; cit. **43**)

10. Raymo F.M. and Giordani S. (2004) “Molecular Logic Gates” *Encyclopedia of Nanoscience and Nanotechnology*, Ed. H. S. Nalwa, American Scientific Publishers, San Diego 5, 677-693

9. Giordani S., Cejas M.A., Raymo F.M. (2004) “Photoinduced Proton Exchange between Molecular Switches” *Tetrahedron* 60, 10973-10981 (IF=3.02; cit. **36**)

8. Giordani S. and Raymo F.M. (2003) “A Switch in a Cage with a Memory” *Org. Lett.* 5, 3559-3562 (IF=**5.86**; cit. **34**)

7. Raymo F.M., Giordani S., White J.P., Williams D.J. (2003) “Digital Processing with a Three-State Molecular Switch” *J. Org. Chem.* 68, 4158-4169 (IF=4.45; cit. **82**)

6. Raymo F.M., Alvarado R.J., Giordani S., Cejas M.A. (2003) “Memory Effects Based on Intermolecular Photoinduced Proton Transfer” *J. Am. Chem. Soc.* 125, 2361-2364 (IF=**9.91**; cit. **87**)

Featured in Nature Materials

5. Raymo F.M. and Giordani S. (2002) “All-optical Processing with Molecular Switches” *Proc. Natl. Acad. Sci. USA Supramolecular Chemistry and Self-Assembly Special Feature* 99, 4941-4944 (IF=**9.68**; cit. **107**) **Featured in Photonic Spectra and Materials Today**

4. Raymo F.M. and Giordani S. (2002) “Multichannel Digital Transmission in an Optical Network of Communicating Molecules” *J. Am. Chem. Soc.* 124, 2004-2007 (IF=**9.91**; cit. **108**) **Featured in Nature and New Scientist**

3. Raymo F.M. and Giordani S. (2001) “Signal Communication between Molecular Switches” *Org. Lett.* 3, 3475-3478 (IF=**5.86**; cit. **67**)

2. Raymo F.M. and Giordani S. (2001) “Digital Communication through Intermolecular Fluorescence Modulation” *Org. Lett.* 3, 1833-1836 (IF=**5.86**; cit. **67**)

1. Raymo F.M. and Giordani S. (2001) “Signal Processing at the Molecular Level” *J. Am. Chem. Soc.* 123, 4651-465 (IF=**9.91**; cit. **168**)