

## Publications

### Original research papers

1. S. Orfanoudakis, P. Dallas, N. Zacharopoulos, P. Tsipas, A. Banis, L. Tsetseris, A. Kontos, T. Stergiopoulos. Shell-free CuInS<sub>2</sub> Nanocrystals with Near-Unity Photoluminescence for Deep-Red LEDs [ACS Applied Optical Materials 2026](#), DOI: [10.1021/acsaom.5c00499](#)
2. "Magnetically controllable sponges for crude oil, mercury, and arsenic removal" P. Bika, N. Todorova, M.-A. Gatou, M. Pissas, E. Devlin, E. Sakellis, N. Boukos, N. Lagopati, T. Lympelopoulou, L.-A. Tsakanika, E. A. Pavlatou, V. K. Tzitzios and P. Dallas [Environ. Sci.: Nano, 2026](#) DOI: [10.1039/D5EN00549C](#)
3. "Detection and Selective Sorption of Copper Ions by a COF-Modified Melamine Sponge" P. Bika, N. Ioannidis, P. Tsipas, S. Papagiannis, M-A. Gatou, E.A Pavlatou, A.G. Karydas, T. Stergiopoulos, P. Dallas [ACS Omega 2025, 10, 21755–21766](#) DOI: [10.1021/acsomega.5c01393](#)
4. "Effects of ligand coordination on Ag<sub>8</sub>SnS<sub>6</sub> as a photoabsorber for thin film solar cells" P. Dallas, V.K Tzitzios, L. Givalou, P. Tsipas, G. Basina, E. Sakellis, N. Boukos, T. Stergiopoulos [J.Mater.Chem.C. 2025, 13, 7996-8005](#) DOI: [10.1039/D5TC00397K](#)
5. "Influence of TFSI post-treatment on surface doping and passivation of lead halide perovskites" K. Gkini, S. Orfanoudakis, F. Harlaftis, P. Dallas, C. Kouzios, P. Tsipas, A.G Kontos, M. Konstantakou, T. Stergiopoulos [J.Mater.Chem.A. 2024, 12, 31291-31300](#) DOI: [10.1039/D4TA06018K](#)
6. "Electron transfer and energy exchange between a covalent organic framework and CuFeS<sub>2</sub> nanoparticles" P. Bika, V. Tzitzios, I. Sakellis, S. Orfanoudakis, N. Boukos, S.M. Alhassan, P. Tsipas, V. Psycharis, T. Stergiopoulos, P. Dallas. [J.Mater.Chem.C. 2024, 12, 10475](#) DOI: [10.1039/D4TC01989J](#)
7. "Enhancing the Visible Light Photocatalytic Activity of TiO<sub>2</sub>-Based Coatings by Addition of Exfoliated g-C<sub>3</sub>N<sub>4</sub>" I. Papailias, N. Todorova, T. Giannakopoulou, N. Plakantonaki, M. Vagenas, G. Anyfantis, P. Dallas, I. Arabatzis, C. Trapalis. [Catalysts 2024, 14, 333](#) DOI: [10.3390/catal14050333](#)
8. "Exploring the potential of powder-to-film processing for proof-of-concept BaZrS<sub>3</sub> perovskite solar cells" P. Dallas, K. Gkini, A. Kaltzoglou, L. Givalou, M. Konstantakou, S. Orfanoudakis, N. Boukos, E. Sakellis, P. Tsipas, A. Kalafatis, A.G. Karydas, A. Lagogiannis, P. Falaras, V. Psycharis, and T. Stergiopoulos [Materials Today Communications 2024, 39, 108608](#) DOI: [10.1016/j.mtcomm.2024.108608](#)
9. Prominent COF, g-C<sub>3</sub>N<sub>4</sub> and Their Heterojunction Materials for Selective Photocatalytic CO<sub>2</sub> Reduction. P. Bika, I. Papailias, T. Giannakopoulou, C.

- Tampaxis, T.A. Steriotis, C. Trapalis, P. Dallas. [Catalysts. 2023, 13, 1331](#) DOI: 10.3390/catal13101331
10. Photocatalytic degradation of organic micropollutants under UV-A and visible light irradiation by exfoliated g-C<sub>3</sub>N<sub>4</sub> catalysts. M. Antonopoulou, P. Bika, I. Papailias, S-K. Zervou, A. Vrettou, I. Efthimiou, G. Mitrikas, N. Ioannidis, C. Trapalis, P. Dallas, D. Vlastos, A. Hiskia. [Science of The Total Environment 2023, 892, 164218](#) DOI: 10.1016/j.scitotenv.2023.164218
  11. Exploring seebeck-coefficient fluctuations in endohedral-fullerene, single-molecule junctions. A.K. Ismael, L. Rincon-Garcia, C. Evangelii, P. Dallas, T. Alotaibi, A.A. Al-Jobory, G. Rubio-Bollinger, K. Porfyrakis, N.s Agrait, C.J. Lambert. [Nanoscale Horizons 2022, 7, 616](#) DOI: 10.1039/D1NH00527H
  12. Copper Coordination and the Induced Morphological Changes in Covalent Organic Frameworks. P. Bika, N. Ioannidis, M-A. Gatou, Y. Sanakis, P. Dallas. [Langmuir 2022, 38, 3082-3089](#) DOI: 10.1021/acs.langmuir.1c02910
  13. Photocatalytic Reduction of CO<sub>2</sub> over Iron-Modified g-C<sub>3</sub>N<sub>4</sub> Photocatalysts. M. Edelmannová, M. Reli, K. Kočí, I. Papailias, N. Todorova, T. Giannakopoulou, P. Dallas, E. Devlin, N. Ioannidis, C. Trapalis. [Photochem 2021, 1, 462-476](#) DOI: 10.3390/photochem1030030
  14. An insight study into the parameters altering the emission of a covalent triazine framework. P. Bika, V. Osokin, T. Giannakopoulou, N. Todorova, M. Li, A. Kaidatzis, R.A. Taylor, C. Trapalis, P. Dallas. [J.Mater.Chem.C. 2021, 9, 13770](#) DOI: 10.1039/D1TC02985A
  15. "Electrochemical Deposition of Highly Hydrophobic Perfluorinated Polyaniline Film for Biosensor Applications." E. Tomšík, P. Dallas, I. Šeděnková, J. Svoboda, Martin Hrubý. [RSC Advances, 2021, 11, 18852](#) DOI: 10.1039/D1RA02325J
  16. "Photocatalytic H<sub>2</sub> Evolution, CO<sub>2</sub> Reduction, and NO<sub>x</sub> Oxidation by Highly Exfoliated g-C<sub>3</sub>N<sub>4</sub>". N. Todorova, I. Papailias, T. Giannakopoulou, N. Ioannidis, N. Boukos, P. Dallas, M. Edelmannová, M. Reli, K. Kočí, C. Trapalis. [Catalysts. 2020, 10, 1147](#) DOI: 10.3390/catal10101147
  17. "Torus Shaped g-C<sub>3</sub>N<sub>4</sub> by Flame Spray Pyrolysis" I. Papailias, N. Todorova, T. Giannakopoulou, N. Ioannidis, P. Dallas, D.Dimotikali, C.Trapalis. [Applied Catalysis B: Environmental, 2020, 268, 118733](#) DOI: 10.1016/j.apcatb.2020.118733
  18. "Electrochemically active water repelling perfluorinated polyaniline films" P. Dallas\*, E. Tomšík, R.S. Jones, A. Xiao, E. Milnes-Smith, N. Grobert, K.Porfyrakis. [Chemical Physics 2020, 528, 110540](#) DOI: 10.1016/j.chemphys.2019.110540
  19. "Detecting the photosensitization from fullerenes and their dyads with gold nanoparticles with singlet oxygen sensor green" P. Dallas\*, P.Q. Velasco, M.

- Lebedeva, K. Porfyrakis. [Chemical Physics Letters 2019, 730, 130-137](#) DOI: 10.1016/j.cplett.2019.05.055
20. "Assembly and Interaction of Polyaniline Chains: Impact on Electro- and Physical-Chemical Behavior" E.N. Tomšík, O. Kohut, I. Ivanko, M. Pekárek, I. Bieloshapka, P. Dallas. [Journal of Physical Chemistry C. 2018, 122 \(14\), 8022–8030](#) DOI: 10.1021/acs.jpcc.8b01948
21. "CF<sub>2</sub>-bridged C<sub>60</sub> dimers and their optical transitions" P.Dallas\*, S.Zhou, S.Cornes, H.Niwa, Y.Nakanishi, T.Puchtler, Y.Kino, R.A.Taylor, H.Shinohara, K.Porfyrakis. [ChemPhysChem 2017, 730, 130-137.](#) DOI: 10.1002/cphc.201701182
22. "Long Stokes shifts and vibronic couplings in perfluorinated polyanilines" P.Dallas\*, I.Rašović, T.Puchtler, R.A.Taylor, K.Porfyrakis. [Chem.Commun. 2017, 53, 2602-2605.](#) DOI: 10.1039/C7CC00471K
23. "Ultra-stiff large-area carpets of carbon nanotubes". S.S.Meysami, P.Dallas, J. Britton, J.G Lozano, A.T Murdock, C.Ferraro, E.S.Gutierrez, N.Rijnveld, P.Holdway, K.Porfyrakis, N.Grobert. [Nanoscale 2016, 8, 11993-12001.](#) DOI: 10.1039/C6NR01660J
24. "Mapping and Tuning the Fluorescence of Perfluorinated Polyanilines Synthesized through Liquid-Liquid interfaces". P.Dallas\*, I.Rašović, K.Porfyrakis. [J.Phys.Chem.B. 2016, 120\(13\), 3441-3454](#) DOI: 10.1021/acs.jpcc.6b00739
25. "Classification of carbon nanostructure families occurring in a chemically activated arc discharge reaction" P.Dallas, S.S.Meysami, N.Grobert, K.Porfyrakis [RSC Advances 2016, 6, 24912-24920](#) DOI: 10.1039/C5RA26325E
26. "Charge separated states and singlet oxygen generation of Mono and Bis Adducts of C<sub>60</sub> and C<sub>70</sub>" P.Dallas\*, G.Rogers, B.Reid, R.Taylor, H.Shinohara, A.Briggs, K.Porfyrakis. [Chem.Phys. 2016, 465, 28-39](#) DOI: 10.1016/j.chemphys.2015.12.003
27. "Redox-dependent Franck-Condon blockade and avalanche transport in a graphene-fullerene nanoelectromechanical oscillator" C.S.Lau, H.Sadeghi, G.Rogers, S.Sangtarash, P. Dallas, K.Porfyrakis, J.Warner, C.Lambert, A.G.Briggs, J.Mol. [Nano Letters. 2016, 16\(1\), 170.](#) DOI: 10.1021/acs.nanolett.5b03434
28. "Self-suspended permanent magnetic FePt ferrofluids" P.Dallas, A.Kelarakis, R.Sahore, F.J.DiSalvo, S.Livi, E.P.Giannelis. [J.Coll.Int.Sci. 2013, 407, 1-7](#) DOI: 10.1016/j.jcis.2013.06.024
29. "Formation mechanism of carbogenic nanoparticles with dual photoluminescence emission" M.Krysmann, A.Kelarakis, P.Dallas, E.P.Giannelis. [J.Am.Chem.Soc. 2012, 134\(2\), 747-750](#) DOI: 10.1021/ja204661r

30. "Magnetic nanoparticles for tunable microwave metamaterials" N.Noginova, Q.L. Williams, P.Dallas, E.P.Giannelis. [Proceedings of SPIE - The International Society for Optical Engineering 2012, 8455, 845531](#) DOI: 10.1117/12.931755
31. "Pyrolytic formation of a carbonaceous solid for heavy metal adsorption" A.B.Bourlinos, M.A.Karakassides, P.Stathi, Y.Deligiannakis, R.Zboril, P.Dallas, T.A.Steriotis, A.K.Stubos, C.Trapalis. [J.Mater.Sci. 2011, 46, 975-982](#) DOI: 10.1007/s10853-010-4854-0
32. "Effect of Surface Modification on Fluorescence and Morphology of CdSe Nanoparticles Embedded in 3D Phosphazene-Based Matrix: Nanowire-like Quantum Dots" K.Siskova, M.Kubala, P.Dallas, D.Jancik, A.Thorel, P.Ilik, R.Zboril. [J.Mater.Chem. 2011, 21, 1086-1093](#) DOI: 10.1039/C0JM02360D
33. "Electrogenerated chemiluminescence from carbon dots" L.Sun, T.H.Teng, Md.H.Rashid, M.Krysmann, P.Dallas, Y.Wang, B.R.Hyun, A.C.Bartnik, G.Malliaras, F.W.Wise, E.P.Giannelis, [Materials Research Society Symposium Proceedings 2011, 1284, 131-136](#) DOI: 10.1557/opl.2011.650
34. "Fullerol ionic liquids" N.Fernandes, P.Dallas, R.Rodriguez, A.B.Bourlinos, V.Georgakilas, E.P.Giannelis. [Nanoscale 2010, 2, 1653-1656](#) DOI: 10.1039/C0NR00307G
35. "Cornet-like phosphotriazine/diamine polymer as reductant and matrix for the synthesis of silver nanocomposites with antimicrobial activity" P.Dallas\*, R.Zboril, A.B. Bourlinos, D.Jancik, D.Niarchos, A.Panacek, D.Petridis. [Macromol. Mater. Eng. 2010 295\(2\), 108](#) - featured on the front cover of Vol.295, Issue 2. DOI: 10.1002/mame.200900258
36. "Magnetically controllable silver nanocomposite with multifunctional phosphotriazine matrix and high antimicrobial activity". P.Dallas\*, J.Tucek, D.Jancik, M.Kolar, A.Panacek, R.Zboril. [Adv.Funct.Mater. 2010, 20\(14\), 2347-2354](#). DOI: 10.1002/adfm.200902370
37. "Organic functionalization of graphenes" V.Georgakilas, A.B.Bourlinos, R.Zboril, T.Steriotis, P.Dallas, A.Stubos, C.Trapalis. [Chem.Commun. 2010, 46, 1766-1768](#). DOI: 10.1039/B922081J
38. "Polypyrrole/MWNT nanocomposites synthesized through interfacial polymerisation" V.Georgakilas, P.Dallas, Ch.Trapalis, D.Niarchos. [Synth.Metals 2009, 159, 632-636](#) DOI: 10.1016/j.synthmet.2008.12.007
39. "Silver nanoparticles and graphitic carbon through thermal decomposition of a silver/acetylenedicarboxylic salt" P.Dallas, A.B.Bourlinos, Ph.Komninou, M.Karakassides, D.Niarchos. [Nanoscale Res. Lett. 2009, 4, 1358-1364](#). DOI: 10.1007/s11671-009-9405-8
40. "One step solid state synthesis of capped  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> nanocrystallites" R.Zboril, A.Bakandritsos, M.Mashlan, V.Tzitzios, P.Dallas, Ch.Trapalis, D.Petridis.

[Nanotechnology](#) 2008, 19, 096602-095610 DOI: 10.1088/0957-4484/19/9/095602

41. "Synthesis and characterization of 2-D and 3-D covalent networks derived from triazine central cores and bridging aromatic diamines" P.Dallas\*, A.B.Bourlinos, D.Petridis, N.Boukos, K.Papadokostaki, D.Niarchos, N.Guskos. [Polymer](#) 2008, 49(5), 1137-1144 DOI: 10.1016/j.polymer.2008.01.030
42. "Synthesis of tunable sized capped magnetic iron oxide nanoparticles highly soluble in organic solvents" P.Dallas, A.B. Bourlinos, D. Petridis, D. Niarchos. [J. Mater. Sci.](#) 2007, 42, 4996-5002 DOI: 10.1007/s10853-006-0610-x
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44. "Silicone-functionalized carbon nanotubes for the production of new carbon based fluids" A.B.Bourlinos, V.Georgakilas, N.Boukos, P.Dallas, Ch.Trapalis, E.P.Giannelis. [Carbon](#) 2007, 45, 1583-1585 DOI: 10.1016/j.carbon.2007.03.040
45. "Preparation of water-dispersible carbon nanotubes-silica hybrid" A.B.Bourlinos, V.Georgakilas, R.Zboril, P.Dallas. [Carbon](#) 2007, 45 (10), 2136-2139 DOI: 10.1016/j.carbon.2007.05.021
46. "Interfacial polymerization of pyrrole and in situ synthesis of polypyrrole/silver nanocomposites" P.Dallas, D.Niarchos, D.Vrbanic, N.Boukos, St.Pejovnik, Ch.Trapalis, D.Petridis. [Polymer](#) 2007, 48, 2007-2013 DOI: 10.1016/j.polymer.2007.01.058
47. "Synthesis and characterization of a  $\pi$ -conjugate, covalent network derived from condensation polymerization of the 4,4'-bipyridine-cyanuric chloride couple" A.B.Bourlinos, P.Dallas, Y.Sanakis, D.Stamopoulos, Ch.Trapalis, D.Niarchos. [Eur.Pol.J.](#) 2006, 42, 2940-2948 DOI: 10.1016/j.eurpolymj.2006.07.025
48. "Characterization, electrical and magnetic properties of polyaniline/maghemite nanocomposites" P.Dallas, N.Moutis, E.Devlin, D.Niarchos, D.Petridis. [Nanotechnology](#) 2006, 17, 5019-5026 DOI: 10.1088/0957-4484/17/19/041
49. "Synthesis, characterization and thermal properties of polymer/iron oxide nanocomposites" P.Dallas, V.Georgakilas, D.Niarchos, Ph.Komninou, Th.Kehagias, D.Petridis. [Nanotechnology](#) 2006, 17, 2046-2053 DOI: 10.1088/0957-4484/17/8/043
50. "Crystal Structure and Solid-State Reactivity of a Cd (II) Polymeric Complex with Acetylenedicarboxylic Acid" St.Skoulika, P.Dallas, M.G.Siskos, Y.Deligiannakis, A.Michaelides. [Chem.Mater.](#) 2003, 15, 4576-4582 DOI: doi.org/10.1021/cm034666e

### Review articles and editorials

51. "Process parameter optimization for endohedral metallofullere synthesis via the arc discharge method" S. Sinha, K. Sanfo, P. Dallas, S. Kumar, K. Porfyrakis. [Inorganics 2024, 12, 38](#) DOI: 10.3390/inorganics12020038
52. "Recent Advances in Covalent Organic Frameworks for Heavy Metal Removal Applications." M-A. Gatou, P. Bika, T. Stergiopoulos, P. Dallas, E.A. Pavlatou. [Energies, 2021, 41, 3197](#) DOI: 10.3390/en14113197
53. "Sensors for Environmental Monitoring" L.Fu, P.Dallas, V.K. Sharma, K. Zhang. [Journal of Sensors 2016](#), Editorial for special issue on sensors. DOI:
54. "Interfacial polymerization of conductive polymers: generation of polymeric nanostructures in a 2-D space" P.Dallas\*, V.Georgakilas. [Adv.Coll.Int.Sci. 2015, 224, 46](#) DOI: 10.1016/j.cis.2015.07.008
55. "Silver polymeric nanocomposites as advanced antimicrobial agents: classification, synthetic paths, applications and perspectives" P.Dallas, V.Sharma, R.Zboril. [Adv.Coll.Int.Sci. 2011, 166, 119-135](#) DOI: 10.1016/j.cis.2011.05.008

### Books and book chapters

56. "Magnetic properties of endohedral fullerenes: applications and perspectives" P. Dallas, R. Harding, S. Cornes, S. Sinha, S. Zhou, I. Rašović, E. Laird, K. Porfyrakis. "21st Century Nanoscience – A Handbook: Low-Dimensional Materials and Morphologies (Volume Four)", CRC Press, Taylor and Francis. Editor: Klaus Sattler. June 2020.
57. "Generation of polymers and nanomaterials at liquid-liquid interfaces" book by P.Dallas, Elsevier, 2020, second edition.
58. "Polymers and Nanomaterials from Liquid-Liquid Interfaces: Synthesis, Self-Organization and Applications"; book by P.Dallas. Smithers Rapra, April 2017, 254 σελίδες.
59. "Endohedral metallofullerenes: optical properties and biomedical applications" P.Dallas, I.Rašović, G.Rogers, K.Porfyrakis. "Carbon nanomaterials sourcebook" Taylor & Francis Publisher, Editor: Klaus Sattler 2016, 255-271
60. "Nanostructured materials for environmentally conscious applications" P.Dallas, A.Kelarakis, E.P.Giannelis "Sustainable Nanotechnology and the Environment" ACS Symposium Book Series 2013, 1124, 59-72