

Publications

Original research papers

1. "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
2. "Electron transfer and energy exchange between a covalent organic framework and CuFeS₂ 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
3. "Enhancing the Visible Light Photocatalytic Activity of TiO₂-Based Coatings by Addition of Exfoliated g-C₃N₄" 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
4. "Exploring the potential of powder-to-film processing for proof-of-concept BaZrS₃ 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
5. Prominent COF, g-C₃N₄ and Their Heterojunction Materials for Selective Photocatalytic CO₂ Reduction. P. Bika, I. Papailias, T. Giannakopoulou, C. Tampaxis, T.A. Steriotis, C. Trapalis, P. Dallas. [Catalysts. 2023, 13, 1331](#) DOI: 10.3390/catal13101331
6. Photocatalytic degradation of organic micropollutants under UV-A and visible light irradiation by exfoliated g-C₃N₄ 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
7. 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
8. 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
9. Photocatalytic Reduction of CO₂ over Iron-Modified g-C₃N₄ 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

10. 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
11. "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
12. "Photocatalytic H₂ Evolution, CO₂ Reduction, and NO_x Oxidation by Highly Exfoliated g-C₃N₄". 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
13. "Torus Shaped g-C₃N₄ 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
14. "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
15. "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
16. "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
17. "CF₂-bridged C₆₀ 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
18. "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
19. "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
20. "Mapping and Tuning the Fluorescence of Perfluorinated Polyanilines Synthesized through Liquid-Liquid interfaces". P.Dallas*, I.Rašović,

- K.Porfyraakis. [J.Phys.Chem.B. 2016, 120\(13\), 3441-3454](#) DOI: 10.1021/acs.jpcc.6b00739
21. "Classification of carbon nanostructure families occurring in a chemically activated arc discharge reaction" P.Dallas, S.S.Meysami, N.Grobert, K.Porfyraakis [RSC Advances 2016, 6, 24912-24920](#) DOI: 10.1039/C5RA26325E
 22. "Charge separated states and singlet oxygen generation of Mono and Bis Adducts of C₆₀ and C₇₀" P.Dallas*, G.Rogers, B.Reid, R.Taylor, H.Shinohara, A.Briggs, K.Porfyraakis. [Chem.Phys. 2016, 465, 28-39](#) DOI: 10.1016/j.chemphys.2015.12.003
 23. "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.Porfyraakis, J.Warner, C.Lambert, A.G.Briggs, [J.Mol. Nano Letters. 2016, 16\(1\), 170.](#) DOI: 10.1021/acs.nanolett.5b03434
 24. "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
 25. "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
 26. "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
 27. "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
 28. "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
 29. "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
 30. "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
 31. "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
32. "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
 33. "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
 34. "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
 35. "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
 36. "One step solid state synthesis of capped γ -Fe₂O₃ 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
 37. "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
 38. "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
 39. "Characterization, magnetic and transport properties of polyaniline synthesized through interfacial polymerization" P.Dallas, D.Stamopoulos, N.Boukos, V.Tzitzios, D.Niarchos, D.Petridis. [Polymer 2007, 48, 3162-3169](#) DOI: 10.1016/j.polymer.2007.03.055
 40. "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
 41. "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

42. "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
43. "Synthesis and characterization of a π -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
44. "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
45. "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
46. "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

47. "Process parameter optimization for endohedral metallofullere synthesis via the arc discharge method" S. Sinha, K. Sanfo, P. Dallas, S. Kumar, K. Porfyraakis. [Inorganics 2024, 12, 38](#) DOI: 10.3390/inorganics12020038
48. "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
49. "Sensors for Environmental Monitoring" L.Fu, P.Dallas, V.K. Sharma, K. Zhang. [Journal of Sensors 2016](#), Editorial for special issue on sensors. DOI:
50. "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
51. "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

52. "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.
53. "Generation of polymers and nanomaterials at liquid-liquid interfaces" book by P.Dallas, Elsevier, 2020, second edition.
54. "Polymers and Nanomaterials from Liquid-Liquid Interfaces: Synthesis, Self-Organization and Applications"; book by P.Dallas. Smithers Rapra, April 2017, 254 σελίδες.
55. "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
56. "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