

## CURRICULUM VITAE

Dr Zili Sideratou  
Research Director

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**Date and Place of Birth:** December 8, 1968, Chios, Greece.

**Marital status:** Married, one child.

### Education

1. Degree of Chemistry, University of Ioannina (1992).
2. Ph. D. Thesis, Chem. Eng., National Technical University of Athens (1997).

### Career/Employment

1. Graduate Studies at NCSR “Demokritos”, Greece (1993-1997).
2. Research Assistant, Institute of Physical Chemistry, NCSR «Demokritos» in the framework of projects funded by European Commission and Greek Ministry of Development (1997-2001).
3. Permanent Research Scientist, Institute of Physical Chemistry, NCSR «Demokritos» (2001-2006).
4. Researcher, Institute of Physical Chemistry, NCSR «Demokritos», Greece (2006 - 2009).
5. Senior Researcher, Institute of Physical Chemistry, NCSR «Demokritos», Greece (2009 - 2015).
6. Research Director, Institute of Nanoscience and Nanotechnology, NCSR «Demokritos», Greece (2015- today).

### Field of Research and Current Research Interests

- Preparation and characterization of functionalized nanostructured carbon-based materials (carbon nanotubes or graphene) with dendritic polymers; prospected applications as controlled release and targeted drug delivery systems as well as antibacterial/antifungal agents.
- Functionalization, characterization and encapsulation properties of dendritic polymers; prospected applications as controlled release and targeted drug delivery systems as well as as gene delivery systems as well as antibacterial/antifungal agents.
- Development of dendritic polymer-functionalized carbon-based nanostructured composites for various applications e.g. as implants for dental and orthopedics applications, as membranes for water treatment applications, etc.

- Development of super-hydrophobic nanocoatings based on functional inorganic nanoparticles and polymer functionalized carbon-based materials for aviation and marine applications.
- Preparation and characterization of liposomes and their applications as drug and gene delivery systems.

### **Fellowships - Membership at Professional Societies -Other**

1. 1993-1997: Fellowship at NCSR “Demokritos”.
2. 1994: Fellowship at Research Department of French Embassy.
3. Member of the Greek Chemical Society.
4. Reviewer in International Journals (Pharmaceutics (MDPI), Pharmaceuticals (MDPI), Materials (MDPI), Nanomaterials (MDPI), Chemical Communication, Biomacromolecules Molecular Pharmaceutics, Langmuir, Biopolymers, International European Polymer Journal, Polymers for Advanced Technologies, Journal of Pharmacy and Pharmacology, Macromolecular Chemistry and Physics, International Journal of Pharmaceutics, Biomaterials, etc.).
5. Guest Editor of Nanomaterials (MDPI) organizing a Special Issue on "Nanostructured Materials for Biological and Pharmaceutical Applications".
6. Evaluator of research projects funded by UEFISCDI (The Executive Agency for Higher Education, Research, Development and Innovation Funding), Romania (2011-2016).
7. Evaluator of research projects funded by FONDECYT (National Fund For Scientific & Technological Development), Chile, 2012.
8. Evaluator of research projects funded by GSRT(2013-2016).

### **Research grants as partner team leader**

**“Antimicrobial Nano-Functionalization of Peptide-enriched Silk Fibroin matrices to prevent bone infections and to enhance implant osseointegration in orthopaedics and dentistry”-ANNAFIB** (EuroNanoMed III-Joint Transnational Call-2018), Contract No: 00058 (2019-2022). Partners: IRCCS Galeazzi Orthopaedic Institute (IT), Silk Biomaterials srl (IT), NCSR (GR), Cantacuzino Institute (RO), Tel Aviv University (IL), Duration:01/03/2019-28/02/2022. Total budget: 943.500 €, NCSR budget: 200.000 €.

**“Synthesis of Advanced top Nanocoatings with improved Aerodynamic and De-icing behavior” – SANAD** (FP7-PEOPLE-2012-IAPP), Contract No: 324443 (2013-2016). Partners: British Airways (UK), Global Nanotechnologies S.A (Gr), NCSR (Gr), Kingston University (UK), Bionanovate Limited (UK), Duration:1/1/2013-31/12/2016. Total budget: 2,872,668.87 €, NCSR budget: 522,156.47€.

### **Supervision of PhD and M.Sc. theses**

1. Kyriaki-Marina Lyra, title of PhD thesis: «Hybrid nanomaterials based on carbon-based materials modified with functional dendritic polymers: Synthesis, characterization and applications», NTUA, Department of Chemical Engineering, 2020.
2. Aikaterini Panagiotaki, title of PhD thesis: «Innovative nanomaterials based on functional dendritic polymers for biological applications», NKUA, Department of Chemistry, 2019.
3. Nikoleta Sterioti, title of PhD thesis: «Multifunctional liposomes and dendritic polymers as drug delivery systems», NKUA, Department of Chemistry, 2015.
4. Aikaterini Panagiotaki, title of M.Sc. thesis: «Novel nanoparticles based on functionalized dendritic polymers as antibacterial agents», NKUA, Department of Chemistry, 2016.
5. Maria Agatholeous, title of M.Sc. thesis: «Synthesis and characterization of guanidinylated dendritic poly(lysines) as gene delivery systems», NKUA, Department of Chemistry, 2011.

**Publications:** 72

**Total Citations:** 2025 (Source Scopus, December 2021)

**h factor:** 27

**Patents:** 12 (5 European, 7 National)

### Publication list

1. Z. Sideratou, C. M. Paleos, A. Skoulios, Liquid Crystals from Non-mesogenic Anils Induced through Hydrogen Bonding, *Mol. Cryst. Liq. Cryst.*, 265, 19-26 (1995).
2. Z. Sideratou, D. Tsiourvas, G. Pistolis, C. M. Paleos, Hydrogen Bonding Interaction of p-Anisidine and N-methyl-p-Anisidine with p-Alkoxybenzoic Acids in the Bulk and in Solution, *J. Incl. Phen. Mol. Reg. Chem.*, 24, 219-232 (1996). **IF= 1.426**
3. D. Tsiourvas, Z. Sideratou, A. Haralabakopoulos, G. Pistolis, C. M. Paleos, Molecular Recognition of Amphiphilic Di(dodecyl)barbituric Acid with Long-chain Alkylated Adenine and Thymine Derivatives, *J. Phys. Chem.*, 100, 14087-14092 (1996). **IF= 3.377**
4. C. M. Paleos, Z. Sideratou, D. Tsiourvas, Mixed Vesicles of Didodecyldimethylammonium Bromide with Recognizable moieties at the Interface, *J. Phys. Chem.*, 100, 13898-13900 (1996). **IF= 3.377**
5. Z. Sideratou, D. Tsiourvas, C. M. Paleos, A. Skoulios, Liquid Crystalline behavior of Hydrogen-bonded Complexes of a Non-mesogenic Anil with p-n-Alkoxybenzoic acids, *Liq. Cryst.*, 22(1), 51-60 (1997). **IF= 2.349**
6. Z. Sideratou, D. Tsiourvas, C. M. Paleos, E. Peppas, J. Anastassopoulou, T. Theophanides, Hydrogen-Bonded Complexes Resulting from the Interaction of Alkylated Barbituric Acid and 2,6-Diaminopyridine Derivatives, *J. Molecular Structure*, 484, 91-101 (1999). **IF= 1.599**
7. Z. Sideratou, D. Tsiourvas, C. M. Paleos, Quaternized Poly(propylene imine) Dendrimers as Novel pH Sensitive Controlled Release Systems, *Langmuir*, 16, 1766-1769 (2000). **IF= 4.384**
8. Z. Sideratou, D. Tsiourvas, C. M. Paleos, A. Tsortos, G. Nounesis, Molecular Recognition of Complementary Liposomes: The Enhancing Role of Cholesterol, *Langmuir*, 16, 9186-9191 (2000). **IF= 4.384**
9. C. M. Paleos, Z. Sideratou, D. Tsiourvas, Molecular Recognition of Complementary Liposomes is Modelling Cell-Cell Recognition, *ChemBiochem*, 2, 305-310 (2001). **IF= 3.060**
10. Z. Sideratou, D. Tsiourvas, C. M. Paleos, Solubilization and Release Properties of PEGylated Diaminobutane Poly(propylene imine) Dendrimers, *J. Colloid Interface Sci.*, 242, 272-276 (2001). **IF= 3.552**
11. D. Tsiourvas, K. Stathopoulou, Z. Sideratou, C. M. Paleos, Body-centered Cubic Phases Derived from n-Dodecylurea Functionalized Poly(propylene imine) Dendrimers, *Macromolecules*, 35, 1746-1750 (2002). **IF= 5.927**

12. Z. Sideratou, D. Tsiourvas, C. M. Paleos, A. Tsortos, S. Pyrpassopoulos, G. Nounesis, Interaction of Phosphatidyl Choline Based Liposomes Functionalized at the Interface with Adenine and Barbituric Acid Moieties, *Langmuir*, 18, 829-835 (2002). **IF= 4.384**
13. Z. Sideratou, J. Foudis, D. Tsiourvas, I. P. Nezis, G. Papadimas, C. M. Paleos, A Novel Dendrimeric “Glue” for Adhesion of Phosphatidyl Choline Based Liposomes, *Langmuir*, 18, 5036-5039 (2002). **IF= 4.384**
14. D. Tsiourvas, T. Felekis, Z. Sideratou, C. M. Paleos, Liquid Crystals Derived from Cholesterol Functionalized Poly(propylene imine) Dendrimers, *Macromolecules*, 35, 6466-6469 (2002). **IF= 5.927**
15. A. Pantos, Z. Sideratou, C. M. Paleos, Complementary Liposomes Based on Phosphatidyl Choline: Interaction Effectiveness vs Prospective Coating, *J. Colloid Interface Sci.*, 253, 435-442 (2002). **IF= 3.552**
16. A. Nikokavoura, D. Tsiourvas, M. Arkas, Z. Sideratou, C. M. Paleos, Thermotropic Liquid Crystalline Behavior of Piperazinium and Homopiperazinium Alkylsulfates, *Liq. Cryst.*, 29, 1547-1553 (2002). **IF= 2.349**
17. C. M. Paleos, D. Tsiourvas, Z. Sideratou, Hydrogen Bonding Interactions of Liposomes Simulating Cell-Cell Recognition, *Origins of Life and Evolution of the Biosphere*, **Invited Paper**, 34, 195-213 (2004). **IF= 1.765**
18. A. Nikokavoura, D. Tsiourvas, M. Arkas, Z. Sideratou, C. M. Paleos, Liquid Crystals Derived from Multi-Cationic Azamacrocyclic Alkylsulphates, *Liq. Cryst.*, 31, 207-213 (2004). **IF= 2.349**
19. C. M. Paleos, D. Tsiourvas, Z. Sideratou, L. Tsiveleka, Acid- and Salt- Triggered Multi-functional Poly(propylene imine) Dendrimer as a Prospective Drug Delivery System, *Biomacromolecules*, 5, 524-529 (2004). **IF= 5.788**
20. D. Tsiourvas, T. Felekis, Z. Sideratou, C. M. Paleos, Ionic Liquid Crystals Derived from the Protonation of Poly(propylene imine) Dendrimers with a Cholesterol Based Carboxylic Acid, *Liq. Cryst.*, 31, 739-744 (2004). **IF= 2.349**
21. A. Pantos, D. Tsiourvas, Z. Sideratou, C. M. Paleos, S. Giatrellis, G. Nounesis, Interactions of Complementary PEGylated Liposomes and Characterization of the Resulting Aggregates, *Langmuir*, 20, 6165-6172 (2004). **IF= 4.384**
22. M. W. Hosseini, D. Tsiourvas, J. M. Planeix, Z. Sideratou, N. Thomas, C. M. Paleos, Molecular Networks Forming Crystalline and Liquid Crystalline Phases by Combined Hydrogen-bonding and Ionic Interactions, *Collection of Czechoslovak Chemical Communications*, 69, 1161-1168 (2004). **IF= 1.137**

23. L.-A. Tziveleka, C. Kontoyianni, Z. Sideratou, D. Tsiourvas, C. M. Paleos, Novel Functional Hyperbranched Polyether Polyols as Prospected Drug Delivery Systems, *Macromol. Biosci.*, 6, 161-169 (2006). **IF= 3.650**
24. Z. Sideratou, L.-A. Tziveleka, C. Kontoyianni, D. Tsiourvas, C. M. Paleos, Design of Functional Dendritic Polymers for Application as Drug and Gene Delivery Systems, *Gene Therapy and Molecular Biology*, 10, 71-94 (2006). **IF= 0.429**
25. D. Koumbi, J.-C. Clementc, Z. Sideratou, J.-J. Yaouancc, D. Loukopoulos, P. Kollia, Factors mediating lipofection potency of a series of cationic phosphonolipids in human cell lines, *Biochim. Biophys. Acta-General Subjects*, 1760, 1151-1159 (2006). **IF= 3.829**
26. C. M. Paleos, D. Tsiourvas, Z. Sideratou, Molecular Engineering of Dendritic Polymers and their Application as Drug and Gene Delivery Systems, *Mol. Pharm.*, 4, 169-188 (2007). **IF= 4.787**
27. C. M. Paleos, D. Tsiourvas, Z. Sideratou, Developing and applying a drug delivery model for liposomal and dendritic multifunctional nanoparticles, *Gene Therapy and Molecular Biology*, 11, 117-131 (2007). **IF= 0.429**
28. I. Tsogas, Z. Sideratou, D. Tsiourvas, T. A. Theodossiou, C. M. Paleos, Interactive Transport of Guanidinylated Poly(propylene imine) Based Dendrimers through Liposomal and Cellular Membranes, *ChemBioChem*, 8, 1865-1876 (2007). **IF= 3.060**
29. I. Tsogas, T. Theodossiou, Z. Sideratou, C. M. Paleos, H. Collet, J. C. Rossi, B. Romestand, A. Commeyras, Interaction and Transport of Poly(L-lysine) Dendrigrfts through Liposomal and Cellular Membranes: The Role of Generation and Surface Functionalization, *Biomacromolecules*, 8, 3263-3270 (2007). **IF= 5.788**
30. C. Kontoyianni, Z. Sideratou, T. Theodossiou, L.-A. Tziveleka, D. Tsiourvas, C. M. Paleos, A novel micellar PEGylated hyperbranched polyester as prospective drug delivery system for paclitaxel, *Macromol. Biosci.*, 8, 871-881 (2008). **IF= 3.650**
31. C. M. Paleos, D. Tsiourvas, Z. Sideratou, L.-A. Tziveleka, Multifunctional Dendritic Drug Delivery Systems: Design, Synthesis, Controlled and Triggered Release, *Curr. Top. Med. Chem.*, 8, 1204-1224 (2008). **IF= 3.453**
32. M. C. Galanou, T. A. Theodossiou, D. Tsiourvas, Z. Sideratou and C. M. Paleos, Interactive Transport, Subcellular Relocation and Enhanced Phototoxicity of Hypericin Encapsulated in Guanidinylated Liposomes via Molecular Recognition, *Photochemistry and Photobiology*, 84, 1073-1083 (2008). **IF= 2.684**
33. C. M. Paleos, L.-A. Tziveleka, Z. Sideratou and D. Tsiourvas, Gene Delivery Using Functional Dendritic Polymers, *Expert Opinion on Drug Delivery*, 6, 27-38 (2009). **IF= 4.116**

34. S. Giatrellis, G. Nikolopoulos, Z. Sideratou, G. Nounesis, Calorimetric Study of the Interaction of Binary DMTAP/DOTAP Cationic Liposomes with Plasmid DNA, *J. Liposome Research*, 19, 220-230 (2009). **IF= 1.533**
35. Z. Sideratou, N. Sterioti, D. Tsiourvas, C. M. Paleos, Structural Features of Interacting Complementary Liposomes Promoting the Formation of Multicompartment Structures, *ChemPhysChem* 10, 3083-3089 (2009). **IF= 3.360**
36. Z. Sideratou, D. Tsiourvas, T. Theodossiou, M. Fardis, C. M. Paleos, Synthesis and characterization of multifunctional hyperbranched polyesters as prospective contrast agents for targeted MRI, *Bioorg. Med. Chem. Lett.* 20, 4177-4181 (2010). **IF= 2.331**
37. Z. Sideratou, N. Sterioti, D. Tsiourvas, L.-A. Tziveleka, A. Thanassoulas, G. Nounesis, C. M. Paleos, Arginine end-functionalized poly(L-lysine) dendrigrafts for the stabilization and controlled release of insulin, *J. Colloid Interface Sci.* 351, 433-441 (2010). **IF= 3.552**
38. Z. Sideratou, C. Kontoyianni, G. I. Drossopoulou, C. M. Paleos, Synthesis of a folate functionalized PEGylated poly(propylene imine) dendrimer as prospective targeted drug delivery system, *Bioorg. Med. Chem. Lett.* 20, 6513-6517 (2010). **IF= 2.331**
39. C. M. Paleos, D. Tsiourvas, Z. Sideratou, L.-A. Tziveleka, Drug Delivery Employing Multifunctional Dendrimers and Hyperbranched Polymers, *Expert Opinion on Drug Delivery*, 7, 1387-1398 (2010). **IF= 4.116**
40. C. M. Paleos, D. Tsiourvas, Z. Sideratou, Interaction of Vesicles: Adhesion, Fusion and Multicompartment Systems Formation, *ChemBioChem*, 12, 510-521 (2011). **IF= 3.060**
41. T. A. Theodossiou, Z. Sideratou, D. Tsiourvas, C. M. Paleos, A Novel mitotropic oligolysine nanocarrier: Targeted delivery of covalently bound D-luciferin to cell mitochondria, *Mitochondrion*, 11, 982-986 (2011). **IF= 3.524**
42. C. M. Paleos, D. Tsiourvas, Z. Sideratou, Preparation of Multicompartment Lipid-based Systems based on Vesicles Interactions, *Langmuir*, 28, 2337-2346 (2012). **IF= 4.384**
43. D. Tsiourvas, Z. Sideratou, N. Sterioti, A. Papadopoulos, G. Nounesis, C. M. Paleos, Insulin Complexes with PEGylated Basic Oligopeptides, *J. Colloid Interface Sci.* 384, 61-72 (2012). **IF= 3.552**
44. C. M. Paleos, D. Tsiourvas, Z. Sideratou, A. Pantos, Formation of artificial multicompartment vesosome and dendrosome as prospected drug and gene delivery carriers, *J. Controlled Release* 170, 141-152 (2013). **IF= 7.261**
45. T. A. Theodossiou, Z. Sideratou, M. Katsarou, D. Tsiourvas, Mitochondrial delivery of doxorubicin by triphenylphosphonium-functionalized hyperbranched poly(ethylene

- imine) nanocarriers results in a rapid and severe DU145 cytocide, *Pharm. Res.* **30**, 2832–2842 (2013). **IF= 3.952**
46. M. Theodoridou, M. Nomikos, D. Parthimos, J. R. Gonzalez-Garcia, K. Elgmati, B. L. Calver, Z. Sideratou, G. Nounesis, K. Swann, F. A. Lai, Chimeras of sperm PLC $\zeta$  reveal disparate protein domain functions in the generation of intracellular Ca<sup>2+</sup> oscillations in mammalian eggs at fertilization. *Mol. Hum. Reprod.* **19**, 852-864 (2013). **IF= 3.483**
47. T. Tsoufis, F. Katsaros, Z. Sideratou, B. J. Kooi, M. A. Karakassides, A. Siozos, Intercalation study of low molecular weight hyperbranched polyethyleneimine into graphene oxide. *Chem. Eur. J.* **20**, 8129-8137 (2014). **IF= 5.696**
48. T. Tsoufis, F. Katsaros, Z. Sideratou, G. Romanos, O. Ivashenko, P. Rudolf, B. J. Kooi, S. Papageorgiou, M. A. Karakassides, Tailor-made graphite oxide–DAB poly(propylene imine) dendrimer intercalated hybrids and their potential for efficient CO<sub>2</sub> adsorption. *Chem. Commun.* **50**, 10967-10970 (2014). **IF= 6.718**
49. C. M. Paleos, Z. Sideratou, Th. A. Theodossiou, D. Tsiourvas, Carboxylated Hydroxyethyl Starch: A novel Polysaccharide for the Delivery of Doxorubicin, *Chem. Biol. Drug Des.* **85**, 653–658 (2015). **IF= 2.507**
50. T. Tsoufis, Z. Syrgiannis, N. Akhtar, M. Prato, F. Katsaros, Z. Sideratou, A. Kouloumpis, D. Gournis, and P. Rudolf, In-situ growth of capping-free magnetic iron oxide nanoparticles on liquid-phase exfoliated graphene, *Nanoscale* **7**, 8995-9003 (2015). **IF= 6.739**
51. M. Nomikos, J. R. Sanders, D. Parthimos, L. Buntwal, B. L. Calver, P. Stamatiadis, A. Smith, M. Clue, Z. Sideratou, K. Swann, F. A. Lai, Essential role of the EF-hand domain in targeting sperm phospholipase C $\zeta$  to membrane PIP<sub>2</sub>, *J. Biol. Chem.* **290**, 29519-29530 (2015). **IF= 4.573**
52. K. Eleftheriou, Z. Sideratou, A. Thanassoulas, A. Papakyriakou, D. Tsiourvas, Comparative Experimental and Computational Study of Monoalkyl Chain Phosphatidylcholine-Containing Thermoresponsive Liposomes, *J. Phys. Chem. B* **120**, 5417–5428 (2016) **IF= 3.187**
53. C. M. Paleos, D. Tsiourvas, Z. Sideratou, Triphenylphosphonium Decorated Liposomes and Dendritic Polymers: Prospective Second Generation Drug Delivery Systems for Targeting Mitochondria, *Mol. Pharmaceutics* **13**, 2233–2241 (2016). **IF= 4.342**
54. M. Nomikos, A. Thanassoulas, K. Beck, M. Theodoridou, J. Kew, J. Kashir, B. L. Calver, E. Matthews, P. Rizkallah, Z. Sideratou, G. Nounesis, F. A. Lai, Mutations in PLC $\delta$ 1 associated with hereditary leukonychia display divergent PIP<sub>2</sub> hydrolytic function, *The FEBS Journal* **283**, 4502–4514 (2016). **IF= 4.237**



55. M. Nomikos, P. Stamatiadis, J.R. Sanders, K. Beck, B.L. Calver, L. Buntwal, M. Lofty, Z. Sideratou, K. Swann, F.A. Lai, Male infertility-linked point mutation reveals a vital binding role for the C2 domain of sperm PLC $\zeta$ , *Biochem. J.* 474, 1003-1016 (2017). **IF= 3.562**
56. G. H. Bode, G. Coué, C. Freese, K. E. Pickl, M. Sanchez-Purrà, B. Albaiges, S. Borrós, E. C. van Winden, L.-A. Tziveleka, Z. Sideratou, J. F.J. Engbersen, S. Singh, K. Albrecht, J. Groll, M. Möller, A. J.G. Pötgens, C. Schmitz, E. Fröhlich, C. Grandfils, F. M. Sinner, C. J. Kirkpatrick, H. W.M. Steinbusch, H-G. Frank, R. E. Unger, P. Martinez, An in vitro and in vivo study of peptide-functionalized nanoparticles for brain targeting: The importance of selective blood–brain barrier uptake, *Nanomedicine: Nanotechnology, Biology and Medicine* 13, 1289–1300 (2017). **IF= 5.671**
57. C. M. Paleos, Z. Sideratou, D. Tsiourvas, Drug Delivery Systems Based on Hydroxyethyl Starch, *Bioconjugate Chem.* 28, 1611–1624 (2017). **IF= 4.818**
58. M.-A. Karageorgou, S. Vranješ-Djurić, M. Radović, A. Lyberopoulou, B. Antić, M. Rouchota, M. Gazouli, G. Loudos, S. Xanthopoulos, Z. Sideratou, D. Stamopoulos, P. Bouziotis, C. Tsoukalas, Gallium-68 Labeled Iron Oxide Nanoparticles Coated with 2,3-Dicarboxypropane-1,1-diphosphonic Acid as a Potential PET/MR Imaging Agent: A Proof-of-Concept Study, *Contrast Media & Molecular Imaging*, Article ID 6951240, p.13 (2017). DOI:10.1155/2017/6951240. **IF= 1.984**
59. K.N. Panagiotaki, Z. Sideratou, S.A. Vlahopoulos, M. Paravatou-Petsotas, M. Zachariadis, N. Houry, V. Zoumpourlis, D. Tsiourvas, A Triphenylphosphonium-Functionalized Mitochondriotropic Nanocarrier for Efficient Co-Delivery of Doxorubicin and Chloroquine and Enhanced Antineoplastic Activity, *Pharmaceuticals (Basel)* 10 Article ID: E912017 (2017). DOI: 10.3390/ph10040091. **IF= 5.863**
60. P. Zygouri, T. Tsoufis, A. Kouloumpis, M. Patila, G. Potsi, A.A. Sevastos, Z. Sideratou, F. Katsaros, G. Charalambopoulou, H. Stamatis, P. Rudolf, T.A. Steriotis, D. Gournis, Synthesis, characterization and assessment of hydrophilic oxidized carbon nanodiscs in bio-related applications, *RSC Adv.* 8, 122-131 (2018). DOI: 10.1039/C7RA11045F. **IF= 3.049**
61. Z. Sideratou, M. Agathokleous, T. A. Theodossiou, D. Tsiourvas, Functionalized Hyperbranched Polyethyleneimines as Thermosensitive Drug Delivery Nanocarriers with Controlled Transition Temperatures, *Biomacromolecules*, 19, 315-328 (2018). **IF= 5.667**
62. A. Sapalidis, Z. Sideratou, K.N. Panagiotaki, E. Sakellis, E.P. Kouvelos, S. Papageorgiou, F. Katsaros, Fabrication of antibacterial PVA nanocomposite films containing dendritic polymer functionalized multi-walled carbon nanotubes, *Frontiers in Materials*, 5, Article number 11 (2018). DOI: 10.3389/fmats.2018.00011. **IF= 2.689**

63. K.N. Panagiotaki, K. Spyrou, M. Zachariadis, H. Pratsinis, A. Kouloumpis, L.G. Boutsika, A. Enotiadis, D. Gournis, E.P. Giannelis, Z. Sideratou, Non-porous phosphonated ionic silica nanospheres as nanocarriers for efficient intracellular delivery of doxorubicin, *Materials Today Communications*, 23, 100787 (2020). DOI: 10.1016/j.mtcomm.2019.100787. **IF= 1.859**
64. K. Eleftheriou, A. Kaminari, K. N. Panagiotaki, Z. Sideratou, M. Zachariadis, J. Anastassopoulou, D. Tsiourvas, A combination drug delivery system employing thermosensitive liposomes for enhanced cell penetration and improved in vitro efficacy, *Int. J. Pharm.*, 574, 118912 (2020). DOI:10.1016/j.ijpharm.2019.118912. **IF= 4.845**
65. M. Lykogianni, E.-A. Papadopoulou, A. Sapalidis, D. Tsiourvas, Z. Sideratou, K. A. Aliferis, Metabolomics reveals differential mechanisms of toxicity of hyperbranched poly(ethyleneimine)-derived nanoparticles to the soil-borne fungus *Verticillium dahliae* Kleb, *Pesticide Biochemistry and Physiology*, 165, 104535 (2020). **IF= 2.751**
66. V. Stagni, A. Kaminari, Z. Sideratou, E. Sakellis, S.A. Vlahopoulos, D. Tsiourvas, Targeting breast cancer stem-like cells using chloroquine encapsulated by a triphenylphosphonium-functionalized hyperbranched polymer. *Int. J. Pharm.*, 585, 119465 (2020). DOI: 10.1016/j.ijpharm.2020.119465. **IF= 4.845**
67. P. Zygouri, K. Spyrou, E. Mitsari, M. Barrio, R. Macovez, M. Patila, H. Stamatis, I. I. Verginadis, A.P. Velalopoulou, A.M. Evangelou, Z. Sideratou, D. Gournis, P. Rudolf, A facile approach to hydrophilic oxidized fullerenes and their derivatives as cytotoxic agents and supports for nanobiocatalytic systems. *Scientific Reports* 10, 8244 (2020). DOI: 10.1038/s41598-020-65117-7. **IF= 4.576**
68. N. S. Heliopoulos, G. Kythreoti, K.M. Lyra, K.N. Panagiotaki, A. Papavasiliou, E. Sakellis, S. Papageorgiou, A. Kouloumpis, D. Gournis, F.K. Katsaros, K. Stamatakis, Z. Sideratou, Cytotoxicity effects of water-soluble multi-walled carbon nanotubes decorated with quaternized hyperbranched poly(ethyleneimine) derivatives on autotrophic and heterotrophic gram-negative bacteria. *Pharmaceuticals* 13, 293 (2020). DOI:10.3390/ph13100293. **IF= 5.863**
69. M. Antoniou, A. Sapalidis, Z. Sideratou, Functionalization of Carbon-Based Additives. In: *Membrane Desalination: From Nanoscale to Real World Applications*. A. Sapalidis (Ed.). Boca Raton: CRC Press (2021). DOI: 10.1201/9780429020254-3.
70. A. Papavasiliou, E.G. Deze, S.K. Papageorgiou, Z. Sideratou, N. Boukos, E. Poulakis, C.J. Philippopoulos, A. Glisentic, T. Van Everbroeck, P. Cool, F.K. Katsaros, A hyperbranched polymer synthetic strategy for the efficient fixation of metal species within nanoporous structures: Application in automotive catalysis. *Chem. Eng. J.* 421, 129496 (2021). Doi:10.1016/j.cej.2021.129496. **IF= 10.652**

71. K.-M. Lyra, A. Kaminari, K. N. Panagiotaki, K. Spyrou, S. Papageorgiou, E. Sakellis, F. K. Katsaros, Z. Sideratou, Multi-Walled Carbon Nanotubes Decorated with Guanidinylated Dendritic Molecular Transporters: An Efficient Platform for the Selective Anticancer Activity of Doxorubicin. *Pharmaceutics* 13, 858 (2021). DOI:10.3390/pharmaceutics13060858. **IF= 6.321**
72. A. Kaminari, E. Nikoli, A. Athanasopoulos, E. Sakellis, Z. Sideratou, D. Tsiourvas, Engineering Mitochondriotropic Carbon Dots for Targeting Cancer Cells. *Pharmaceutics* 14, 932 (2021). DOI: 10.3390/ph14090932. **IF= 5.863**

## Patent list

### a. International Patents

1. C. M. Paleos, D. Tsiourvas, Z. Sideratou, “Multifunctional Dendrimers and Hyperbranched Polymers as Drug and Gene Delivery Systems”, International Application Filing No.: PCT/GR2004/000009, Publication number: WO2004072153, Publication date: 26-8-2004.

<u>GREEK PATENT OFFICE</u> Grant Number: 1004516 Grant Date: 06/04/2004	<u>GREEK PATENT OFFICE</u> Grant Number: 1004523 Grant Date: 06/4/2004
<u>ISRAEL</u> Filing Number: 170060 Filing Date: 3/8/2005 Grant Number: 170060	<u>BRAZIL</u> Filing Number: PI-0407420-3 Filing Date: 13/2/2004
<u>CANADA</u> Filing Number: PI-0407420-3 Filing Date: 13/2/2004	<u>EURASIAN PATENT OFFICE</u> Filing Number: 200501260 Filing Date: 6/9/2005
<u>KOREA</u> Filing Number: 2005-7014666 Filing Date: 9/8/2005 Publication Number: 2005-0111586 Publication Date: 25/11/2005	<u>JAPAN</u> Filing Number: 2006-502341 Filing Date: 13/2/2004 Grant Number: 4808610 Grant Date: 26/8/2011
<u>AUSTRALIA</u> Filing Number: 2004211522 Filing Date: 2/8/2005 Date of Acceptance: 28/01/2010 Accepted Serial Number: 2004211522	<u>INDIA</u> Filing Number: 3495/DELNP/2005 Filing Date: 5/8/2005 Indian Patent No.: 242043 Date of Grant: 06/08/2010
<u>NEW ZEALAND</u> Filing Number: 541661 – Divisional	<u>MEXICO</u> Filing Number: PA/a/2005/008579

application filed: 574134 on 12 January 2009 Filing Date: 5/8/2005  Date of grant : 11/7/2011  Grant Number: 574134	Filing Date: 12/8/2005 The application was <u>accepted</u>
<u>CHINA</u> Filing Number: 200480004047.X Filing Date: 12/8/2005 Publication Number: CN 1747988A Publication Date: 15/03/2006 Chinese Patent No.: ZL 2004 8 0004047.X <i>Grant Date: 03/02/2010</i>	<u>UKRAINE</u> Filing Number: 200508737/M Filing Date: 13/9/2005
<u>USA</u>  Filing Number: 10/545,307 Filing Date: 31/3/2006 Publication Number: US-2006-0204472-A1 Publication Date: 14/9/2006	<u>European Patent Office</u> Application No: 04710933.5 Publication No: 1603967 Filing date: 12/9/2005

2. C. M. Paleos, D. Tsiourvas, Z. Sideratou, A. Arkas, "Modified Lipophilic Polymers for Purification of Water", International Application Number: PCT/GR2004/000004. Publication number: WO2004065459, Publication date: 5-8-2004.

<u>GREEK PATENT OFFICE</u> Grant Number: 1004458 Grant Date: 19/2/2004	<u>CANADA</u> Serial No.: 2513612 Filing Date: 21/01/2004
<u>USA</u> Filing Number: 10/542,665	<u>CHINA</u> Filing Number: 200480002525.3

<p>Filing Date: 19/07/2005</p> <p><u>Patent No.: 7,767,091</u></p> <p><u>Date of Patent: 03/08/2010</u></p>	<p>Filing Date: 21/07/2005</p> <p>Publication Number: CN 1742038 A</p> <p>Publication Date: 010/3/2006</p> <p><u>Chinese Grant No.: ZL 2004 8</u> <u>0002525.3</u></p> <p><u>Date of Grant: 06/10/2010</u></p>
<p><u>European Patent Office</u></p> <p>Application No: 04703855.9</p> <p>Publication No: 1594913</p>	

3. C. M. Paleos, D.Tsiourvas, Z. Sideratou, I. Tsogas, T. Theodossiou, “Molecular dendritic transporters”. International Application Number: PCT/GR2007/000038. Publication number: WO2008010000, Publication date: 24-1-2008.
4. N. Heliopoulos, Z. Sideratou, F. Katsaros, K. Stamatakis, S. Papageorgiou, Th. Tsoufis, “Novel Dendritic polymer-functionalized nanostructured carbon-based materials with antibacterial properties and their effect in the photosynthetic process”, Filed in European Patent Office, Application Number EP15001320/4-5-2015.
5. Z. Sideratou, F. Katsaros, A. Sapalidis, S. Papageorgiou, B. Baybogan-Isilak, A. Akcali, “Novel nanocomposites with micro slime layer control properties for fouling release paint applications”, European Patent Office, Application Number: EP16002497/23-11-2016.

#### b. National Patents

1. C. M. Paleos, D. Tsiourvas, Z. Sideratou, “Multifunctional Dendrimers and Hyperbranched Polymers as Drug Delivery Systems”, Filed in Greek Patent Office, Application Number 20030100069/13-2-2003. Patent number 1004516/6-4-2004.
2. C. M. Paleos, D. Tsiourvas, Z. Sideratou, “Multifunctional Dendrimers and Hyperbranched Polymers as Gene Delivery Systems”, Filed in Greek Patent Office, Application Number 20030100194/2-5-2003. Patent number 1004523/6-4-2004.
3. C. M. Paleos, D. Tsiourvas, M. Arkas, Z. Sideratou, “Modified Lipophilic Polymers for Water Purification”, Filed in Greek Patent Office, Application Number 20030100020/21-1-2003. Patent number 1004458/19-2-2004.

4. C. M. Paleos, D. Tsiourvas, Z. Sideratou, I. Tsogas, “Molecular Dendritic Carriers with adapted/changing Solubility and Complementarity to Membrane Receptors”, Filed in Greek Patent Office, Application Number 20060100424/21-7-2006. Patent number 1006666/19-1-2010.
5. N. Heliopoulos, Z. Sideratou, F. Katsaros, K. Stamatakis, S. Papageorgiou, Th. Tsoufis, “Novel Dendritic polymer-functionalized nanostructured carbon-based materials with antibacterial properties and their effect in the photosynthetic process”, Filed in Greek Patent Office, Application Number 20140100263/2-5-2014. Patent number 1008659/18-01-2016.
6. Z. Sideratou, F. Katsaros, A. Sapalidis, S. Papageorgiou, B. Baybogan-Isilak, A. Akcali, “Novel nanocomposites with micro slime layer control properties for fouling release paint applications”, Filed in Greek Patent Office, Application Number: 20150100507/23-11-2015. Patent number 1009055/29-05-2017.
7. D. Tsiourvas, Z. Sideratou, S. Vlachopoulos, “Innovative mitochondria-targeted drug delivery systems of aminoquinolines and of their derivatives based on dendritic polymers” Filed in Greek Patent Office, Application Number: 20160100398/11-7-2016. Patent number 1009107/08-09-2017.

### List of Presentations in International and National Conferences

1. Z. Sideratou, C. M. Paleos and A. Skoulios, Hydrogen Bonding Induced Liquid Crystals Originating from Non-mesogenic Anils, Presented in the 15<sup>th</sup> International Liquid Conference, 3-8 July 1994, Budapest, Hungary, σελ. 109.
2. Ζ. Σιδεράτου, Δ. Τσιούρβας, Α. Σκουλιός και Κ. Μ. Παλαιός, Νέοι Υγροί Κρύσταλλοι που Σχηματίζονται δια Μοριακής Αναγνώρισης μέσω δεσμών Υδρογόνου, 16<sup>ο</sup> Πανελλήνιο Συνέδριο, Αθήνα, 4-8 Δεκεμβρίου 1995, σελ. 535.
3. C. M. Paleos, Z. Sideratou, D. Tsiourvas and A. Skoulios, Characterization of Liquid Crystalline Complexes Formed from Non-Mesogenic Anils with p-n-Alkoxybenzoic Acids Induced by Hydrogen Bonding, NATO Advanced Workshop, 'Current Challenges on Large Supramolecular Assemblies', 31 October-5 November, 1997, σελ. 799.
4. Ζ. Σιδεράτου, Δ. Τσιούρβας, και Κ. Μ. Παλαιός, Μοριακή Αναγνώριση Μικτών Κυστιδίων, Ομιλία στο 2<sup>ο</sup> Συμπόσιο Ινστιτούτου Φυσικοχημείας: 'Χημική Έρευνα και Βιομηχανία', 3-5 Δεκεμβρίου 1997, σελ 46.
5. C. M. Paleos, D. Tsiourvas, Z. Sideratou, A. Tsotros and G. Nounesis, The role of Cholesterol in Enhancing Molecular Recognition of Complementary Liposomes, Smarton 3<sup>rd</sup> Workshop, Hindsgarl, Denmark, May 25-28, 2000.
6. C. M. Paleos, Z. Sideratou and D. Tsiourvas, Interactions of Liposomes at their External Microinterfaces, "ACHEMA 2000", May 22-27, 2000 (**Invited Lecture**).
7. C. M. Paleos, D. Tsiourvas and Z. Sideratou, Molecular Recognition of Liposomes through Hydrogen Bonding, 13<sup>th</sup> International Symposium on Surfactants in Solution, Gainesville, Florida, USA, June 11-16, 2000.
8. Ζ. Σιδεράτου, Δ. Τσιούρβας και C. Μ. Παλαιός, Controlled Release Properties of Biologically Active Compounds Encapsulated in PEGylated Poly(propylene imine) Dendrimers, 14<sup>th</sup> Conference of European Colloid and Interface Society, Patra, Greece, Sept. 17-22, 2000.
9. D. Koumbi, P. Kollia, J. C. Clement, Z. Sideratou and D. Loukopoulos, Systemic analysis of the impact of lipofection factors upon the efficiency of cationic



- phospholipid-mediated gene transfer into human cell lines, 2<sup>nd</sup> European Hematology Meeting, Florence, June 2002.
10. D. Tsiourvas, T. Felekis, Z. Sideratou and C. M. Paleos, Novel Liquid Crystals Derived from Cholesteryl Poly(propylene imine) Dendrimeric Derivatives, 19<sup>th</sup> International Liquid Crystals Conference, Edinburgh, UK, June 2002.
  11. A. Nikokavoura, D. Tsiourvas, M. Arkas, Z. Sideratou and C. M. Paleos, Thermotropic Liquid Crystalline Behavior of Piperazinium and Homopiperazinium Alkylsulfates, 19<sup>th</sup> International Liquid Crystals Conference, Edinburgh, UK, June 2002.
  12. D. Koumbi, Z. Sideratou, P. Kollia, D. Loukopoulos and C. M. Paleos, Efficient gene and protein transfer into a human cell culture system mediated by a novel dendrimeric derivative, 10<sup>th</sup> Meeting of the European Society of Gene Therapy, Antibes, France, 2002.
  13. Δ. Κούμπη, Π. Κόλλια, Ζ. Σιδεράτου, Α. Μ. Ψαρρά, Σ. Λυκούση και Δ. Λουκόπουλος, Μελέτη της Αποτελεσματικότητας και του Μηχανισμού Δράσης Νέων Τύπων Κατιονικών Λιποσωμάτων ως Φορείς Διαγονιδίων σε Ανθρώπινα Κύτταρα, Πανελλήνιο Αιματολογικό Συνέδριο, Πάτρα, 2002.
  14. Κ. Μ. Παλαιός, Δ. Τσιούρβας και Ζ. Σιδεράτου, Μοριακή Αναγνώριση Λιποσωμάτων με Συμπληρωματικά λιποσώματα ή Δενδριμερή, 19<sup>ο</sup> Πανελλήνιο Συνέδριο Χημείας, Κρήτη, Νοέμβριος 2002.
  15. C. M. Paleos, D. Tsiourvas και Ζ. Sideratou, Molecular Interaction of Complementary Liposomes through Hydrogen-bonding Interactions in Modelling Cell-Cell Recognition, Prebiotic Chemistry and Early Evolution, Ravello, Italy, October 16-20, 2002.
  16. Φ. Φελέκης, Δ. Τσιούρβας, Ζ. Σιδεράτου και Κ. Μ. Παλαιός, Νέοι Υγροί Κρύσταλλοι προερχόμενοι από Χοληστερικά Παράγωγα των Πολυ(προπυλένο-ίμινο) Δενδριμερών, 1<sup>ο</sup> Συνέδριο Ελληνικής Κρυσταλλογραφικής Εταιρείας, Γεωπονική Σχολή Αθηνών, Μάιος 2002.
  17. C. M. Paleos, D. Tsiourvas, Ζ. Sideratou and L. Tziveleka, Multifunctional Liposomes and Dendritic Polymers as Drug Delivery Systems, Nanofunctions, Workshop on Nanoscale Functionalities, Chalkidiki, Greece, October 17-18, 2003.

18. D. Koumbi, A. M. Psarra, J.-C. Clement, G.-G. Yaouanc, Z. Sideratou, S. Likousi, J. A. Pangalis and P. Kollia, Impact of Lipoplex Physicochemical Properties upon Transgene Incorporation, Stability and Mode of Nuclear Targeting in Cationic Phospholipid- and Lipophosphoramidate- mediated Transfection into Human cells The 11<sup>th</sup> Annual Congress of the European Society of Gene Therapy, Edinburgh, UK, November 2003.
19. A. Pantos, D. Tsiourvas, Z. Sideratou, C. M. Paleos, S. Giatrellis and G. Nounessis, Characterization of Aggregates Originating from the Interaction of Complementary Liposomes, COST D 27 Workshop on Prebiotic Chemistry and Early Evolution, Heraklion, Crete, September 30-Oct.3, 2004.
20. C. M. Paleos and D. Tsiourvas, Z. Sideratou, L. Tziveleka and C. Kontoyianni, Design and Synthesis of Multifunctional Dendritic Polymers as Prospected Drug and Gene Delivery Systems, 8<sup>th</sup> International Conference in Emerging Technologies in Drug and Gene-based Therapeutics, Crete, Greece, September 3-10, 2005.
21. C. M. Paleos and D. Tsiourvas, Z. Sideratou, Developing and Applying a Drug Delivery Model for Liposomal and Dendritic Multifunctional Nanoparticles, Presented at “9<sup>th</sup> International Conference in “Drug and Gene-based Therapeutics”, Crete, Greece, September 2-8, 2006.
22. L-A. Tziveleka, A-M. Psarra, Z. Sideratou and C. M. Paleos, Synthesis and Characterization of Functional Hyperbranched Polyether Polyols as Prospected Gene Carriers. Presented at “9<sup>th</sup> International Conference in “Drug and Gene-based Therapeutics”, Crete, Greece, Sept. 2-8, 2006.
23. A. Pantos, D. Tsiourvas, Z. Sideratou and C. M. Paleos, Molecular Recognition and Polyvalency induce Interaction between Complementary Liposomes leading to Multicompartmentalization, Presented at COST D 27, Workshop on “Chemiogenesis”, Barcelona, Spain, December 15-18, 2006.
24. I. Tsogas, T. Theodossiou, Z. Sideratou, D. Tsiourvas and C. M. Paleos, Functional Poly(propylene imine) Dendrimer Internalization. Membrane Crossing in Liposomes and Cells, Presented at COST D 27, Workshop on “Chemiogenesis”, Barcelona, Spain, December 15-18, 2006.

25. C. M. Paleos, D. Tsiourvas, Z. Sideratou, L.-A. Tziveleka, Functional dendritic polymers as drug and gene delivery systems, presented at the International conference on Nanomedicine, Chalkidiki, Greece, September 9-11, 2007.
26. I. Tsogas, T. Theodosiou, Z. Sideratou, C. M. Paleos, Transport of Dendrimers bearing Guanidinium surface groups through Liposomal Membranes, Presented at COST D31, Workshop on "Organising Non-Covalent Chemical Systems with Selected Functions", Athens, Greece, March, 28-31, 2007.
27. I. Tsogas, T. A. Theodossiou, Z. Sideratou, D. Tsiourvas, C. M. Paleos, H. Collet, J. C. Rossi, B. Romestand, A. Commeyras, Interaction and Transport of poly(L-Lysine) Dendrigrfts through Liposomal and Cellular Membranes: The Role of Generation and Surface Functionalization, Presented at 5th Interational Dendrimer Symposium, Toulouse, France, August 28- September 1, 2007.
28. C. M. Paleos, D. Tsiourvas, Z. Sideratou, L.-A. Tziveleka, Multifunctional Dendritic Drug Delivery Systems: Design, Synthesis, Controlled and Triggered Release, Workshop on Solid Phase Phospholipid and Dendrimer Synthesis, Athens, Greece, December 3, 2007 (**Invited Lecture**).
29. C. M. Paleos, D. Tsiourvas, Z. Sideratou, T. Theodossiou, Modelling Cellular Membrane Transport: Interaction and Transport of Guanidinylated Dendritic Polymers through Liposomal Membranes, Presented at the ILS 2007 Annual Meeting, Liposome Advances (Progress in Drug and Vaccine Delivery), London, UK, December 8-11, 2007.
30. D. Koumbi, J. C. Clement, A. M. Psarra, Z. Sideratou, J. J. Yaouanc, M. Chatzouli, M. Samara, D. Loukopoulos, P. Kollia, Detailed studies on the mechanism and factors mediating lipofection potency of cationic phosphonolipid-based gene transfer into human cells, Presented at 4<sup>th</sup> International Conference on Stem Cell Gene Therapy, Thessaloniki, Halkidiki, Greece, September 13-17, 2007.
31. D. Koumbi, J. C. Clement, A. M. Psarra, J. J. Yaouanc, Z. Sideratou, M. Chatzouli, I. Chiotoglou, N. Vamvakopoulos, P. Kollia, Impact of lipoplex physicochemical properties upon transgene incorporation, stability and mode of nuclear targeting in cationic phosphonolipid- and lipophosphoramidate-mediated transfection into human

- cells, Presented at 4<sup>th</sup> International Conference on Stem Cell Gene Therapy, Thessaloniki, Halkidiki, Greece, September 13-17, 2007.
32. D. Koumbi, J. C. Clement, A.-M. Psarra, Z. Sideratou, J.-J. Yaouanc, M. Chatzouli, D. Loukopoulos, P. Kollia, Efficient delivery of the  $\alpha$ -gamma globin gene in human hematopoietic and non-hematopoietic cells by cationic phosphonolipid- and lipophosphoramidate-mediated transfection, 49<sup>th</sup> ASH<sup>®</sup> Annual Meeting and Exposition, Atlanta, Georgia, December 8-11, 2007.
  33. Z. Sideratou, Functional hyperbranched dendritic polymers as drug delivery systems, ESF Exploratory Workshop on “Hyperbranched polymers as novel materials for nanoscale applications: insight from experiment, theory and simulations (HYPER-NANO), Fodele, Grete, Greece, May 25-28, 2008 (**Invited lecture**).
  34. Z. Sideratou, T. Theodossiou, D. Tsiourvas, M. Fardis and C. M. Paleos, Multifunctional hyperbranched polymers with protective coating and targeting character as MRI contrast agents, ESF Exploratory Workshop on “Hyperbranched polymers as novel materials for nanoscale applications: insight from experiment, theory and simulations (HYPER-NANO), Fodele, Grete, Greece, May 25-28, 2008.
  35. C. M. Paleos, D. Tsiourvas, Z. Sideratou, L.A. Tziveleka, Targeted and Multifunctional Dendritic Polymers: Magic Bullets for Drug and Gene Delivery, Ehrlich II, 2<sup>nd</sup> World Conference on Magic Bullets, Nuerberg, Germany, October 3-5, 2008.
  36. S. Cohen, Z. Sideratou, C. M. Paleos and R. Korenstein, Uptake and Adsorption of Nano-carrier Based on PEGylated Hyperbranched Polyesters by Different Cell Lines, Fifth Workshop, The Center of Nanoscience and Nanotechnology, February 22-24, 2009, Tel Aviv University, Israel.
  37. T. A. Theodossiou, L.A. Tziveleka, Z. Sideratou, J. Tsogas, D. Tsiourvas and C. M. Paleos, The Adaptive Solubility Behaviour of Guanidinylated Dendritic Polymers Facilitates their Transport through Cells Membrane, Presented at the “Second European Conference for Clinical Nanomedicine, Basel Switzerland, April 27-29, 2009. Conference proceedings, Part III, page 77.
  38. C. M. Paleos, D. Tsiourvas, Z. Sideratou, and A. Pantos, Guanidinium Group: A Group Inducing Membrane Transport and Multicompartment System Formation,

Presented at “Chemiogenesis 2009”, COST ACTION CM0703, Lake Balaton, Hungary, October 23-27, 2009.

39. N. Sterioti, Z. Sideratou, D. Tsiourvas and C. M. Paleos, Synthesis and Characterization of Guanidinylated Poly(L-lysine) DendriGrafts as Prospective Insulin Delivery systems, Young Researchers’ Technical Workshop in the frame of EuroNanoMedicine 2009, Bled, Slovenia, September 28, 2009.
40. C. M. Paleos, D. Tsiourvas, Z. Sideratou and A. Pantos, Liposomal Membrane Transport and Multicompartment Systems Formation Induced by Guanidinium Functionalized Dendritic Polymers and Liposomes Respectively, 10<sup>th</sup> European Biological Inorganic Chemistry Conference, EUROBI10, Thessaloniki, Greece, June 22-26, 2010.
41. S. Cohen, Z. Sideratou, C. M. Paleos, R. Korenstein, Evaluation of hyperbranched polyester as a drug carrier system for intestinal cells, 35<sup>th</sup> FEBS Congress, Molecules of Life, Gothenburg, Sweden, June 26 –July 1, 2010. Conference proceedings: FEBS JOURNAL, 277, Suppl. 1, p. 226, 2010.
42. C. M. Paleos, D. Tsiourvas, Z. Sideratou, Formation of lipid-based multicompartment systems and a hypothesis on the creation of eukaryotic cells, Presented at “Chemiogenesis 2011”, COST ACTION CM0703, Crete, Greece, October 27-30, 2011.
43. Z. Sideratou, Functional dendritic polymers as drug delivery systems, National Hellenic Research Foundation, Athens, Greece, May 5, 2011(**Invited lecture**).
44. T. Tsoufis, Z. Sideratou, F. Katsaros, B. J. Kooi, M. A. Karakassides, A. Siozos, Novel carbon-based nanoporous materials derived from the intercalation of low molecular weight hyperbranched polyethyleneimine into graphene oxide, Presented at 6th Hellenic Symposium on Porous Material, Kavala, Greece, September 9-10, 2013.
45. T. Tsoufis, Z. Sideratou, F. Katsaros, An intercalation study of polyethyleneimine into graphene oxide, Presented at International Conference on Diamond and Carbon Materials, Riva del Garda, Italy, September 2-4, 2013.
46. T. Tsoufis, Z. Sideratou, F. Katsaros, Catalytic synthesis of carbon nanodisc-CNT hybrids via the chemical vapor deposition method, Presented at International

- Conference on Diamond and Carbon Materials, Riva del Garda, Italy, September 2-4, 2013.
47. Z. Sideratou, A. Sapalidis, S. Papageorgiou, F. Katsaros, High-throughput Development of Carbon Polymer Nanocomposites for Marine Applications, at the Researcher Night 2013-Greece, Athens, September 27, 2013.
  48. T. Tsoufis, F. Katsaros, Z. Sideratou, O. Ivanshenko, P. Rudolf, M. A. Karakassides, Novel dendrimer intercalated graphene-based materials, Presented at 224th ECS Meeting, San Francisco, USA, October 27-November 1, 2013.
  49. Z. Sideratou, A. Sapalidis, S. Papageorgiou, F. Katsaros, A. Akcali High-throughput Development of Carbon Polymer Nanocomposites for Marine Applications, at the EURONANOFORUM 2013, Dublin, Ireland, June 18-20, 2013.
  50. Z. Sideratou, A. Sapalidis, S. Papageorgiou, F. Katsaros, A. Akcali and B. Baybogan, "High-throughput development of carbon-polymer nanocomposites for marine applications", 6th Hellenic Symposium on Porous Material, 9-10 September, 2013, Kavala, Greece
  51. P. Zygouri, T. Tsoufis, Z. Sideratou, F. Katsaros, G. Charalampopoulou, T. Steriotis, D. Gournis, Preparation and characterization of hydrophilic carbon nanodisks, Presented at 6<sup>th</sup> Hellenic Symposium on Porous Material, Kavala, Greece, September 9-10, 2013.
  52. M. Agathokleous, Z. Sideratou, T. A. Theodossiou, D. Tsiourvas, Functionalized hyperbranched polymers as thermosensitive nanocarriers with precisely controlled transition temperatures. Presented at 5th BBBB International Conference, Athens, Greece, September 26-28, 2013.
  53. S. Nitodas, A. Stefopoulos, Z. Sideratou, A. Sapalidis, F. Katsaros, Novel carbon nanotubes-based coatings for marine applications, Presented at TechConnect WORLD 2014, Washington DC, USA, June 15-18, 2014.
  54. Μ. Αγαθοκλέους, Ζ. Σιδεράτου, Δ. Τσιούρβας, Σύνθεση και μελέτη σειράς θερμοευαίσθητων υπερδιακλαδισμένων πολυμερών με καλά καθορισμένες κατώτερες κρίσιμες θερμοκρασίες διάλυσης, Παρουσιάστηκε στο 9<sup>ο</sup> Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα, Ελλάδα, Μάιος 23-25, 2013.

55. M. Nomikos, M. Theodoridou, J. R. Gonzalez-Garcia, B. L. Calver, K. Elgmati, Z. Sideratou, G. Nounesis, K. Swann, F. A. Lai, Role of sperm PLC-zeta domains in mobilizing the  $\text{Ca}^{2+}$  oscillations that induce egg activation at fertilization, Presented at "Calcium Signalling" Gordon Research Conference, Renaissance Tuscany Il Ciocco Resort in Lucca (Barga), Italy, June 16- 21, 2013.
56. T. Tsoufis, F. Katsaros, Z. Sideratou, M. A. Karakassides and B. Kooi, "Graphene-based nano-composite materials for environmental and energy applications", 225<sup>th</sup> ECS, Orlando (FL), USA, May 11-15, 2014.
57. Z. Sideratou, F. Katsaros, D. Tsiourvas, A. Sapalidis, S. Papageorgiou, Synthesis of Advanced top Nano-coatings with improved Aerodynamic and De-icing behaviour, Presented at Industrial Technologies 2014, Athens, Greece, April 9-11, 2014.
58. T. Tsoufis, Z. Sideratou, F. Katsaros, A. Sapalidis, S. Papageorgiou, A. Akcali and B. Baybogan, High-throughput development of carbon-polymer nanocomposites for marine applications, Presented at Industrial Technologies 2014, Athens, Greece, April 9-11, 2014.
59. L. Formaro, R. Bresciani, S. Marzorati, M. Longhi, T. Tsoufis, F. Katsaros, Z. Sideratou, Modified Carbon Nanostructures as Catalysts For Oxygen Reduction Reactions, Presented at 65<sup>th</sup> Annual Meeting of the International Society of Electrochemistry, Lausanne, Switzerland, August 31- September 5, 2014.
60. Z. Sideratou, EU funded project "SANAD", Workshop on "Nanocomposite coatings for aviation and marine applications" July 2, 2015, NCSR "Demokritos", Athens, Greece.
61. D. Tsiourvas, Z. Sideratou, A. Arkas, Development of hybrid organic/inorganic alumina nanoparticles based on functional dendritic polymers, Workshop on "Development of High Performance Alumina Matrix Nanostructured Composites", November 27, 2015, National Technical University of Athens, Greece.
62. K. Panagiotaki, Z. Sideratou, K. Stamatakis, Evaluation of antibacterial activity of a novel anionic hyperbranched dendritic polymer and its effect on photosynthesis. International conference on "Photosynthesis research for sustainability-2015: in honor of Dr. G. C. Papageorgiou" September 21- 27, 2015, Kolymbari, Crete, Greece.

63. Z. Sideratou, F. Katsaros, N. Heliopoulos, K. Stamatakis, S. Papageorgiou, Th. Tsoufis, Novel Dendritic Polymer-Functionalized Nanostructured Carbon-Based Materials with Antibacterial Properties, American Advanced Materials Congress 2016, 4-9 December 2016, Miami, USA.
64. Z. Sideratou, D. Tsiourvas, F. Katsaros, K. Spyrou, A. Sapalidis, S. Papageorgiou, P. Booker, P. Wagstaff, Design and Synthesis of Advanced Nanostructured Coatings with Hydrophobic/ Icephobic Properties, American Advanced Materials Congress 2016, 4-9 December 2016, Miami, USA.
65. A. Sapalidis, Z. Sideratou, A. Panagiotaki, E. Kouvelos, S. Papageorgiou, F. Katsaros, Dendritic polymer functionalised CNTs as highly dispersed fillers for poly(vinyl alcohol) nanocomposites, American Advanced Materials Congress 2016, 4-9 December 2016, Miami, USA.
66. Μ. Λυκογιάννη, Ε. Παπαδοπούλου, Δ. Τσιούρβας, Ζ. Σιδεράτου, Κ.Α. Αλιφέρης, Νανοτεχνολογία στη νέα εποχή της φυτοπροστασίας: Αξιολόγηση της βιοδραστικότητας καινοτόμων δενδριτικών νανο-φορέων, 18ο Πανελλήνιο Φυτοπαθολογικό Συνέδριο, 18 - 21 Οκτωβρίου 2016, Ηράκλειο Κρήτης, Ελλάδα.
67. Μ. Κ. Antoniou, Κ. Spyrou, L. Esteves, Α. Papavasiliou, Ζ. Sideratou, Α. Enotiadis, F. Katsaros, Ε. Giannelis, D. Gournis, Hierarchical porous carbon supported copper catalyst for no reduction, 7th Panhellenic Symposium on Porous Materials, 2-4 June 2016, Ioannina, Greece.
68. Ε. Thomou, Α. Enotiadis, Ε. Diamanti, F. Κ. Katsaros, Ζ. Sideratou, D. Gournis, Pillaring of graphene oxide with silver polyoxocations, 7th Panhellenic Symposium on Porous Materials, 2-4 June 2016, Ioannina, Greece.
69. Κ. Spyrou, Ε. Thomou, Ε. Κ. Diamanti, F. Κ. Katsaros, Ζ. Sideratou and D. Gournis, Pillaring of GO with  $[Al_{13}(O)_4(OH)_{24}(H_2O)^{127+}]$  Keggin ions and derived hybrids, 7th Panhellenic Symposium on Porous Materials, 2-4 June 2016, Ioannina, Greece.
70. Ζ. Sideratou, F. Katsaros, D. Tsiourvas, K. Spyrou, A. Sapalidis, S. Papageorgiou, Synthesis of Advanced top Nano-coatings with improved Aerodynamic and De-icing behaviour- SANAD, European Conference Industrial Technologies 2016, 22-24 June 2016, Amsterdam, The Netherlands.



71. M. Lykogianni, E.A. Papadopoulou, Z. Sideratou, D. Tsiourvas, K.A. Aliferis, Bioactivity and effect of hyperbranched poly(ethyleneimine)-based nanoparticles on plant pathogenic fungi, 27th Interdisciplinary Research Conference on Injectable Biomaterials and Interventional Procedures, 18-21 May 2017, Athens, Greece.
72. K. N. Panagiotaki, Z. Sideratou, S. Vlahopoulos, M. Paravatou-Petsotas, D. Tsiourvas, A Triphenylphosphonium-Functionalized Mitotropic Nanocarrier for Efficient co-Delivery of Doxorubicin and chloroquine, 3rd International Controlled Release Society Congress, 19-20 June 2017, Athens, Greece.
73. Z. Sideratou, D. Tsiourvas, F. Katsaros, K. Spyrou, A. Sapalidis, S. Papageorgiou, P. Booker, P. Wagstaff, Advanced nanostructured top-coatings with hydrophobic/icephobic properties, EuroNanoForum 2017, 21-23 June 2017, Valetta, Malta.
74. Z. Sideratou, F. Katsaros, A. Sapalidis, S. Papageorgiou, B. Baybogan-Isilak, A. Akcali, Novel nanocomposites with micro slime layer control properties for fouling release paint applications, EuroNanoForum 2017, 21-23 June 2017, Valetta, Malta.
75. K. N. Panagiotaki, M. Paravatou-Petsotas, K. Stamatakis, Z. Sideratou, Enhanced antimicrobial activity of N-sulfopropylated hyperbranched polyethyleneimine against Gram-negative bacteria and its effect on photosynthesis, 28th Annual Conference of the European Society for Biomaterials (ESB 2017), 4-8 September 2017, Athens, Greece.
76. K. N. Panagiotaki, Z. Sideratou, S. Vlahopoulos, M. Paravatou-Petsotas, D. Tsiourvas, Mitochondrial co-delivery of Doxorubicin and Chloroquine by a Triphenylphosphonium-Functionalized Nanocarrier, 28th Annual Conference of the European Society for Biomaterials (ESB 2017), 4-8 September 2017, Athens, Greece.
77. K. Panagiotaki, K. Spyrou, E. Thomou, A. Kouloumpis, A. Enotiadis, H. Pratsinis, D. Gournis, Z. Sideratou, A new strategy for efficient nanoscale ionic silica nanospheres (NISNs) as promising drug delivery system. 28th Annual Conference of the European Society for Biomaterials (ESB 2017), 4-8 September 2017, Athens, Greece.
78. M. Lykogianni, Z. Sideratou, D. Tsiourvas, K.A. Aliferis, Polymer nanoparticles as potent fungicides against *Verticillium dahliae*: insights from a metabolomics

perspective. International Congress of Plant Pathology (ICPP) 2018: Plant Health in a Global Economy, 29 July-3 August 2018, Boston, USA.

79. Μ. Λυκογιάννη, Ζ. Σιδεράτου, Δ. Τσιούρβας, Κ.Α. Αλιφέρης. Μελέτη της επίδρασης οργανικών νανοσωματιδίων στο μεταβολισμό του *Verticillium dahliae* και των μηχανισμών δράσης τους με εφαρμογή μεταβολομικής, 19<sup>ο</sup> Πανελλήνιο Φυτοπαθολογικό Συνέδριο, 30 Οκτωβρίου - 1 Νοεμβρίου 2018, Αθήνα, Ελλάδα.
80. Κ.Μ. Lyra, Ν. Karouta, Κ. Spyrou, Α. Enotiadis, Ν. Chalmpes, Α. Kaminari, Μ. Patila, Μ. Zachariadis, Η. Stamatis, Δ. Gournis, Ζ. Sideratou, Carbon Nanodisks Decorated with Fluorescent Carbon Dots as Traceable Drug Delivery System. XXXIII Panhellenic Conference on Solid State Physics and Materials Science, 17-19 September 2018, Nicosia, Cyprus.
81. Κ.Μ. Lyra, Α. Kaminari, Α. Kouloumpis, Ε. Thomou, Κ. Tsirka, Μ. Zachariadis, Δ. Gournis, Ζ. Sideratou, Multiwall Nanotubes Decorated with Guanidinylated Hyperbranched Polyethylenimine as Effective Drug Delivery Systems. 12th Hellenic Polymer Society International Conference, 30 September- 3 October 2018, Ioannina, Greece.
82. Α. Kaminari, Κ. Ν. Panagiotaki, V. Stagni, Ζ. Sideratou, S. Vlahopoulos, Δ. Tsiourvas, Organelle-targeted hyperbranched polymeric nanocarriers repurpose old drugs for new applications. XXXIII Panhellenic Conference on Solid State Physics and Materials Science, 17-19 September 2018, Nicosia, Cyprus.
83. Κ. Ν. Panagiotaki, Ζ. Sideratou, Α. Kaminari, Μ. Zachariadis, Δ. Tsiourvas, Functionalized dendritic nanocarriers as efficient drug delivery systems targeting mitochondria, 12th Hellenic Polymer Society International Conference 2018, 30 September-3 October 2018, Ioannina, Greece
84. Κ. Ν. Παναγιωτάκη, Ζ. Σιδεράτου, Α. Καμινάρη, Μ. Ζαχαριάδης, Δ. Τσιούρβας, Λειτουργικοί δενδριτικοί νανοφορείς φαρμάκων για στόχευση μιτοχονδρίων των κυττάρων, 11<sup>ο</sup> Συνέδριο Ελληνικής Εταιρείας Βιοϋλικών, 23-25 Νοεμβρίου 2018, Αθήνα, Ελλάδα.
85. Κ. Μ. Λύρα, Α. Καμινάρη, Μ. Ζαχαριάδης, Ζ. Σιδεράτου, Νανοσωλήνες πολλαπλού τοιχώματος διακοσμημένοι με γουανιδιωμένη υπερδιακλαδισμένη

πολυ(αιθυλενιμίμη) για εφαρμογές ως φορείς φαρμάκων, 11<sup>ο</sup> Συνέδριο Ελληνικής Εταιρείας Βιοϋλικών, 23-25 Νοεμβρίου 2018, Αθήνα, Ελλάδα.

86. A. Kaminari, K. N. Panagiotaki, Z. Sideratou, S. Vlahopoulos, D. Tsiourvas, Organelle-targeted hyperbranched polymeric nanocarriers repurpose old drugs for new applications, 69<sup>th</sup> Panhellenic Conference on the Hellenic Society for Biochemistry and Molecular Biology, 23-25 November 2018, Larissa, Greece.
87. A. Papavasiliou, E. G. Deze, S. K. Papageorgiou, F. K. Katsaros, Z. Sideratou, N. Boukos, E. Poulakis, C.J. Philippopoulos, Facile and controlled synthesis of PdO @ SBA-15 porous host with excellent TWC behavior, 27th ATC 2018: Industrial Inorganic Chemistry - Materials and Processes, 22 - 23 February 2018, Frankfurt, Germany.
88. Κ. Μ. Λύρα, Ν. Καρούτα, Κ. Σπύρου, Α. Ενωτιάδης, Ν. Χαλμπές, Α. Καμινάρη, Μ. Πατήλα, Μ. Ζαχαριάδης, Χ. Σταμάτης, Δ. Γουρνής, Ζ. Σιδεράτου, Τροποποιημένοι νανοδίσκοι άνθρακα με φθορίζουσες νανοτελείες άνθρακα ως συστήματα μεταφορές φαρμάκων υψηλής θεραπευτικής ικανότητας για την θεραπεία του καρκίνου, 12ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, 29-30 Μαΐου 2019, Αθήνα, Ελλάδα.
89. Ι. Τουρνής, Α. Σαπαλίδης, Ζ. Σιδεράτου, Φ. Κατσαρός, Νανοσύνθετες πολυμερικές μεμβράνες πολυβινυλικής αλκοόλης/νανοδίσκων άνθρακα για την απομάκρυνση ιόντων μετάλλων, 12ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, 29-30 Μαΐου 2019, Αθήνα, Ελλάδα.
90. Ε. Νικολή, Α. Καμινάρη, Ζ. Σιδεράτου, Δ. Τσιούρβας, Ανάπτυξη λειτουργικών κβαντικών τελειών άνθρακα με ικανότητα στόχευσης υποκυττάρων οργανιδίων, 12ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, 29-30 Μαΐου 2019, Αθήνα, Ελλάδα.
91. Κ.-Μ. Lyra, A. Kaminari, K.N. Panagiotaki, A. Papavasiliou, Z. Sideratou, Carbon nanodisks decorated with guanidinylated hyperbranched polyethyleneimine derivatives with enhanced antibacterial performance, 35th Conference of the European Colloid and Interface Society (ECIS2021), 5-10 September 2021, Athens, Greece.

92. A. Kaminari, E. Nikoli, A. Athanasopoulos, E. Sakellis, Z. Sideratou, D. Tsiourvas, Mitochondriotropic carbon dots with cell internalization specificity for cancer cells, 35th Conference of the European Colloid and Interface Society (ECIS2021), 5-10 September 2021, Athens, Greece.
93. I. Tournis, D. Tsiourvas, Z. Sideratou, A. Sapalidis, Porous PVDF-based Membranes Coated with Superhydrophobic Nanoparticle for efficient Membrane Distillation, 35th Conference of the European Colloid and Interface Society (ECIS2021), 5-10 September 2021, Athens, Greece.
94. I. Tournis, A. Sapalidis, Z. Sideratou, F. Katsaros, Dendritic polymer functionalized carbon nanodiscs/poly(vinyl alcohol) nanocomposite membranes for water treatment applications, Athens Conference on Advances in Chemistry, 10-14 March 2021, Athens, Greece.
95. K.-M. Lyra, K. N. Panagiotaki, A. Papavasiliou, Z. Sideratou, Water-soluble multi-walled carbon nanotubes decorated with guanidinylated hyperbranched poly(ethyleneimine) derivatives with enhanced antibacterial performance, Athens Conference on Advances in Chemistry, 10-14 March 2021, Athens, Greece.
96. I. Tournis, D. Tsiourvas, Z. Sideratou, A. Sapalidis, Superhydrophobic Nanoparticle-Coated PVDF-HFP Membranes for Increased Flux and Fouling Resistance Membrane Distillation, 17th International Conference on Environmental Science and Technology (CEST2021), 1 - 4 September 2021, Athens, Greece.
97. K. N. Panagiotaki, A. Papavasiliou, K. Stamatakis, Z. Sideratou, Enhanced antimicrobial activity of N-sulfopropylated hyperbranched polyethyleneimine and its effect on photosynthesis, Advanced Nano Materials Conference 2021 (ANM2021), 22 – 24 July 2021, Aveiro, Portugal.
98. S. Loukopoulos, E. Sakellis, F. Katsaros, V. Likodimos, Composite MoS<sub>2</sub>-TiO<sub>2</sub> photonic crystals for photocatalytic applications, XXXV Panhellenic Conference on Solid State Physics and Materials Science, 26-29 September 2021, Athens, Greece.
99. I. Tournis, Z. Sideratou, F. Katsaros, A. Sapalidis, Poly(vinyl alcohol) nanocomposite membranes with functionalized carbon discs for water treatment applications, Euromembrane, 28 November-02 December 2021, Copenhagen Denmark.

100. I. Tournis, D. Tsiourvas, Z. Sideratou, A. Sapalidis, Coating Porous PVDF-HFP Membranes with Superhydrophobic Nanoparticles improves Membrane Distillation performance, 13th Hellenic Polymer Society International Conference, 12-16 December 2021, Athens, Greece.