CURRICULUM VITAE

Dr Zili Sideratou

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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 carbon-based materials 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.
- Preparation and characterization of liposomes and their applications as drug delivery systems.
- Toxicological assessment of nanoparticles and aerosols
- Development of dendritic polymer-functionalized carbon-based nanostructured composites for water treatment applications.

- Development of super-hydrophobic nanocoatings based on functional inorganic nanoparticles and polymer functionalized carbon-based materials for aviation and marine applications.

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 and Materials (MDPI) organizing Special Issue on "Nanostructured Materials for Biological and Pharmaceutical Applications 1st, 2nd and 3rd edition" and "Nanoparticles for Biomedical Applications 1st and 2nd edition" ", respectively.
6. Editorial board Member of *Materials* (MDPI), Section: Advanced Nanomaterials and Nanotechnology
7. Evaluator of research projects funded by UEFISCDI (The Executive Agency for Higher Education, Research, Development and Innovation Funding), Romania (2011-2016).
8. Evaluator of research projects funded by FONDECYT (National Fund for Scientific & Technological Development), Chile, 2012.
9. Evaluator of research projects funded by GSRT (2013-2016).
10. Evaluator of research projects funded by EU (2025-today).

Research grants as NCSRD team leader

"Knowledge-driven fine-tuning of perovskite-based electrode materials for reversible Chemicals-to-Power devices – KNOWSKITE-X", HORIZON-CL4-2022-RESILIENCE-01-19, Grant Agreement No: 101091534 (2023 – 2026). Duration:1/1/2023-31/12/2026. Total Budget: 5.168.000 €, NCSRD Budget: 510.625 €.

"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). Duration:01/03/2019-28/02/2022. Total budget: 943.500 €, NCSRD 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). Duration:1/1/2013-31/12/2016. Total budget: 2,872,668.87 €, NCSRD budget: 522,156.47€.

Research grants as a member of NCSRD team

A. Founded by EU

- **Air Quality and Health Impact of Primary Semi-Volatile and Secondary Particles and their Abatement -AEROSOLS**, HORIZON-CL5-2022-D5-01-07, Grant Agreement No: 101096912 (2024-2026) NCSRD Budget: 508.750€.

- **SUStainable Antimicrobial and Antiviral Nanocoating- SUSAAN,** HORIZON-CL4-2021-RESILIENCE-01-20, Grant Agreement No: 101057988 (2022 – 2025). Total Budget: 5.754.846 €, NCSRD Budget: 498.750 €.

- **Development of a bifunctional hierarchically structured zeolite based nano-catalyst using 3D-technology for direct conversion of methane into aromatic hydrocarbons via methane dehydroaromatization –ZEOCAT-3D,** H2020-NMBP-ST-IND-2018-2020, Grant Agreement No: 814548 (2019 – 2022). Total Budget: 6.764.020 €, NCSRD Budget: 423.750 €.

- **Development of novel, high performance hybrid TWV/ GPF automotive after treatment systems by rational design: substitution of PGMs and rare earth materials — PARTIAL-PGMs**, H2020-NMP-2014-2015. Contract No: 686086 (2016-2019). Total Budget: 4600000 €, NCSRD Budget: 472750.00€.

- **High-throughput development of carbon-polymer nanocomposites for marine applications - CARBONCOMP**, FP7-PEOPLE-2011-IAPP-286413 (2011-2015).

- **Development of NEXT GENeration cost efficient automotive CATalysts-NEXT-GEN-CAT** (FP7-NMP-2011-SMALL-5). Contract No: 280890 (2012-2016).

- **Nanoscale Functionalities for Targeted Delivery of Biopharmaceutics - NANOBIOPHARMACEUTICS**, NMP Integrated Project, NMP4-CT-2006-026723 (2006-2010).

- **Organic/Inorganic Hybrid Membranes Based on Novel molecular Nanosponges for Water Purification - NANOSPONGES**, Competitive and Sustainable Growth, G5RD-CT-2001-00552 (2001-2004).

- **Molecular and nano-scale drug delivery systems - MODELS**, BRITE EURAM BRPR-CT97-040 (1997-2000).

B. National Founding

- **Process intensification of Carbon dioxide and methane valorization by microwave heating – RESILIENCE**, Code: 26272. Hellenic Foundation for Research and Innovation, Greece (2024-2028).

- **Recycled industrial graphite wastes for the sustainable synthesis of high added value nanomaterials - GRAPHITE** (MIS 5185058), PEP Attikis 2014-2020, Greece (2022-2024).

- **Development of ceramic based nanostructured composites with nanoparticle inclusions**, PRAXIS «THALIS» 380143, GSRT, Greece (2012-2015).

- **Development of innovative bio-active magnetic nanomaterials for diagnosis and monitoring of pathogenic conditions by magnetic tomography**, PEP Attikis, GSRT, Greece (2006-2008).

- **Targeted drug delivery systems based on liposomes and dendritic polymers**, PAVET-NE 2004, 04BEN4, GSRT, Greece (2005-2007).

- **Advanced Functional Materials, Excellence in the Research Institutes program**, 1422/B1/3.3.1/362/2002, GSRT, Greece (2002-2005).

- **Development and production of functional dendrimers and hyperbranched dendtitic polymers for drug and gene delivery and for the purification of water**, 01 PRAXE 23, GSRT, Greece, (2002-2004).

- **Monomeric and polymerized chiral micelles as microrectors for the production of technologically important materials**, PENED 1999, GSRT, Greece, (1999-2001).

- **Ανάπτυξη νέων τροποποιημένων πολυμερών και μειγμάτων για υλικά συσκευασίας και αγροτικές εφαρμογές**, ΕΠΕΤ ΙΙ, Υποπρόγραμμα 1, μέτρο 1.4, GSRT, Greece (1994-1996).

- **Liposomal Niflumic acid, a novel transdermal anti-inflammatory formulation**, PAVE 96 (1997-1999).

Supervision of PhD and M.Sc. theses

1. Ioannis Tournis, title of PhD thesis: «Nanocomposite membranes for water treatment applications», NKUA, Department of Chemistry, 2025 (co-supervision with Dr A. Sapalidis).
2. 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, 2021.
3. Aikaterini Panagiotaki, title of PhD thesis: «Innovative nanomaterials based on functional dendritic polymers for biological applications», NKUA, Department of Chemistry, 2019.
4. Nikoleta Sterioti, title of PhD thesis: «Multifunctional liposomes and dendritic polymers as drug delivery systems», NKUA, Department of Chemistry, 2015.
5. Anna Korlou, title of M.Sc. thesis: «Alkyltriphenylphosphonium-functionalized dendritic polymers as efficient antibacterial agents», NKUA, Department of Chemistry, In progress.
6. Ilektra Magdalini Toliou, title of M.Sc. thesis: «Functional inorganic nanoparticles with antibacterial properties», NKUA, Department of Chemistry, 2024
7. Ioannis Tournis, title of M.Sc. thesis: «Nanocomposite PVA membranes containing hydrophilic oxidized carbon nanodiscs functionalized with guanidinylated derivatives of hyperbranched poly(ethyleneimine) for water treatment», NKUA, Department of Chemistry, 2020.
8. Aikaterini Panagiotaki, title of M.Sc. thesis: «Novel nanoparticles based on functionalized dendritic polymers as antibacterial agents», NKUA, Department of Chemistry, 2016.
9. Maria Agatholeous, title of M.Sc. thesis: «Synthesis and characterization of guanidinylated dendritic poly(lysines) as gene delivery systems», NKUA, Department of Chemistry, 2011.

Bibliometric indices

- 94 research articles in peer reviewed journals
- 1 chapter in book
- 12 patents (5 European, 7 National)
- *h*-index = 35; i10-index = 70; Total citations = 3430 (*Google Scholar*)
- *h*-index = 33; Total citations = 2780 (*Scopus May 2026*)

Recent publications (2020-2026)

1. 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

2. 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

3. 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). DOI: 10.1016/j.pestbp.2020.02.001

4. 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

5. 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

6. 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

7. 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

8. 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

9. A. Kaminari, E. Nikoli, A. Athanasopoulos, E. Sakellis, Z. Sideratou, D. Tsiourvas, Engineering Mitochondriotropic Carbon Dots for Targeting Cancer Cells. *Pharmaceuticals* 14, 932 (2021). DOI: 10.3390/ph14090932

10. I. M. Scoullos, I. Tournis, E. Kouvelos, Z. Sideratou, A. Sapalidis, Assessment of fouling in commonly used polymeric membranes. *Desalination Water Treat.* 255, 192–199 (2022). DOI: 10.5004/dwt.2022.28341

11. Z. Sideratou, M. Biagiotti, D. Tsiourvas, K. N. Panagiotaki, M. V. Zucca,.G. Freddi, A. B. Lovati, M. Bottagisio, Antibiotic-Loaded Hyperbranched Polyester Embedded into Peptide-Enriched Silk Fibroin for the Treatment of Orthopedic or Dental Infections. *Nanomaterials* 12, 3182 (2022). DOI: 10.3390/nano12183182

12. I. Tournis, D. Tsiourvas, Z. Sideratou, L. G. Boutsika, A. Papavasiliou, N. K. Boukos, A. A. Sapalidis, Superhydrophobic nanoparticle-coated PVDF–HFP membranes with enhanced flux, anti-fouling and anti-wetting performance for direct contact membrane distillation-based desalination. *Environ. Sci.: Water Res. Technol.* 8, 2373–2380 (2022). DOI: 10.1039/D2EW00407K

13. M. Bottagisio, S. Palombella, S. Lopa, F. Sangalli, P. Savadori, M. Biagiotti, Z. Sideratou, D. Tsiourvas, A. B. Lovati Vancomycin-nanofunctionalized peptide-enriched silk fibroin to prevent methicillin-resistant Staphylococcus epidermidis-induced femoral nonunions in rats. *Front. Cell. Infect. Microbiol*. 12, 1056912 (2023). DOI: 10.3389/fcimb.2022.1056912

14. N. Karouta, Y.V. Simos, G. Basina, K. Spyrou, M. Subrati, A.V. Chatzikonstantinou, M.A. Hammami, V. Tzitzios, S.M. Alhassan, Y. Al Wahedi, A.P. Douvalis, G.C. Hadjipanayis, K. Tsamis, E. Dounousi, G.S. Markopoulos, S. Bellou, V. Georgakilas, D. Peschos, Z. Sideratou, H. Stamatis, D.P. Gournis, E.P. Giannelis, Highly Hydrophilic Oleylamine-Modified Superparamagnetic Iron Oxide Nanoparticles for Biomedical Applications. *ACS Applied Nano Materials* 6, 2770-2783 (2023). DOI: 10.1021/acsanm.2c04006

15. V. Stagni, A. Kaminari, C. Contadini, D. Barilà, R.L. Sessa, Z. Sideratou, S.A. Vlahopoulos, D. Tsiourvas, A Triphenylphosphonium-Functionalized Delivery System for an ATM Kinase Inhibitor That Ameliorates Doxorubicin Resistance in Breast Carcinoma Mammospheres. *Cancers 15(5)*, 1474 (2023). DOI: 10.3390/cancers15051474

16. B. Mavroidi, A. Kaminari, E. Sakellis, Z. Sideratou, D. Tsiourvas, Carbon Dots–Biomembrane Interactions and Their Implications for Cellular Drug Delivery. *Pharmaceuticals* 16, 833 (2023). DOI: 10.3390/ph16060833

17. S. Loukopoulos, E. Sakellis, M.G. Kostakis, D.-T. Gerokonstantis, P. Tsipas, S. Gardelis, A.G. Kontos, F.K. Katsaros, Z. Sideratou, G. Em. Romanos, A. Dimoulas, N. S. Thomaidis, V. Likodimos, Co-assembled MoS_2−TiO_2 Inverse Opal Photocatalysts for Visible Light-Activated Pharmaceutical Photodegradation. *ACS Omega*, 8(37), 33639–33650 (2023). DOI: 10.1021/acsomega.3c03881

18. K. M. Lyra, I. Tournis, M. Subrati, K. Spyrou, A. Papavasiliou, C. Athanasekou, S. Papageorgiou, E. Sakellis, M.A. Karakassides, Sideratou, Z. Carbon Nanodisks Decorated with Guanidinylated Hyperbranched Polyethyleneimine Derivatives as Efficient Antibacterial Agents. *Nanomaterials*, 14(8), 677 (2024). DOI: 10.3390/nano14080677

19. S. Gerostathis, A. Athanasopoulos, K. N. Panagiotaki, Z. Sideratou, D. Tsiourvas, V. Sophianopoulou. Antifungal Activity of Functionalized Hyperbranched Polyethyleneimine Derivatives against Quiescent Conidia and Germlings of the Opportunistic Fungal Pathogen Aspergillus nidulans. *J. Biol. Regul. Homeost. Agents*, 38(4), 2781-2794 (2024). DOI: /10.23812/j.biol.regul.homeost.agents. 20243804.217

20. A.S. Kaloudi, P. Zygouri, K. Spyrou, A.-M. Athinodorou, E. Papanikolaou, M. Subrati, D. Moschovas, K.K.R. Datta, Z. Sideratou, A. Avgeropoulos, Y.V. Simos, K.I. Tsamis, D. Peschos, I.V. Yentekakis, D.P. Gournis A Strategic Synthesis of Orange Waste-Derived Porous Carbon via a Freeze-Drying Method: Morphological Characterization and Cytocompatibility Evaluation. *Molecules*, 29(16), art. no. 3967, (2024). DOI: 10.3390/molecules29163967

21. K.N. Panagiotaki, K.-M. Lyra, A. Papavasiliou, K. Stamatakis, Z. Sideratou, Synthesis of N-Sulfopropylated Hyperbranched Polyethyleneimine with Enhanced Biocompatibility and Antimicrobial Activity. *ChemPlusChem* 90(1), art. no. e202400454 (2025). DOI: 10.1002/cplu.202400454

22. M. Subrati, K.-M. Lyra, K. Spyrou, I.M. Toliou, G. Petrou, P. Manganiaris, A. Papavasiliou, E. Sakellis, C.P. Athanasekou, A. Glisenti, Z. Sideratou, F. Katsaros, Valorization of Industrial Waste Graphite Fines into Graphene Oxide-Based Nanohybrids. *ChemPlusChem* 90(3), art. no. e202400692 (2025). DOI: 10.1002/cplu.202400692

23. K. N. Panagiotaki, K. M. Lyra, A. Papavasiliou, D. Tsiourvas, Sideratou, Z. Alkyltriphenylphosphonium-Functionalized Hyperbranched Polyethyleneimine Nanoparticles for Safe and Efficient Bacterial Eradication: A Structure–Property Relationship Study. *Int. J. Mol. Sci.* 26(11), 5153 (2025). DOI:10.3390/ijms26115153

24. C. Piffet, J. M. Thomassin, E. Stierlin, J. Tchoumtchoua, C. Fernández, M. Mateo, L. Hernández, K.M. Lyra, A. Papavasiliou, E. Sakellis, F.K. Katsaros, Z. Sideratou, D. Tsiourvas, Sustainable Antibacterial Chitin Nanofiber/ZnO Nanohybrid Materials: Ex Situ and In Situ Synthesis, Characterization and Evaluation. *Nanomaterials* 15(11), 809 (2025). DOI:10.3390/nano15110809

25. N. S. Heliopoulos, K. M. Lyra, A. Papavasiliou, F. K. Katsaros, K. Stamatakis, S. K. Papageorgiou, Z. Sideratou, Fabrication of Antibacterial and Ultraviolet Protective Wool Fabric Using Multi-Walled Carbon Nanotubes Functionalized with Guanidinylated Hyperbranched Polyethyleneimine Derivative. *Materials* 18(9), 1993 (2025). DOI:10.3390/ma18091993

26. D. Tsiourvas, Z. Sideratou, E. Mavrogonatou, D. Kletsas, V. Sophianopoulou, S. Gerostathis, Copper-Chelated Hyperbranched Polyethyleneimines with Antifungal Activity against quiescent conidia and germlings of the opportunistic fungal pathogen Aspergillus nidulans. *Scientific Reports* 15, 25711 (2025). DOI: 10.1038/s41598-025-11018-6.

27. B. Mavroidi, K. M. Lyra, S. Pispas, Z. Sideratou, D. Tsiourvas, Hyperbranched Polyethyleneimine–Coordinated Copper (II) Metallopolymers with Preferential Targeting to Prostate Cancer Cells. Pharmaceuticals, 18(8), 1189 (2025). DOI: 10.3390/ph18081189.

28. P. Zygouri, G. Tsiodoulos, M. Lianou, A.M. Athinodorou, E. Papanikolaou, Y.V. Simos, K. Spyrou, M. Subrati, A.S. Kaloudi, K. Tsamis, L. Lakkas, Z. Sideratou, F.K. Katsaros, D. Peschos, V. Ragos, D.P. Gournis, In Situ Development of Quercetin-Enhanced Layered Double Hydroxides for Targeted Osteosarcoma Therapy. *ACS Biomat. Sci. Eng. 11(12)*, 7180-7192 (2025). DOI:10.1021/acsbiomaterials.5c01290.

29. A. Papavasiliou, K.M. Lyra, E. Sakellis, A.M. Lozano Násner, J. Gallego, F.K. Katsaros, Z. Sideratou, Engineering Mesoporous Silica Hosts for Ultrasmall ZnO Nanoparticles: A Dendritic Polymer-Assisted Strategy Towards Sustainable, Safe, and Effective Antibacterial Systems. *Nanomaterials* 15(22), 1697 (2025). DOI:10.3390/nano15221697.

30. K. M. Lyra, A. Papavasiliou, C. Piffet, L. Gumusboga, J.-M. Thomassin, Y. Marie, A. Hoareau, V. Moulès, J. Alcodori, P. Camilleri Lledó, A.M.L. Násner, J. Gallego, E. Sakellis, F.K. Katsaros, D. Tsiourvas, Z. Sideratou, Bio-Derived Cellulose Nanofibers for the Development Under Environmentally Assessed Conditions of Cellulose/ZnO Nanohybrids with Enhanced Biocompatibility and Antimicrobial Properties. *Materials* 19(2), 346 (2026). DOI:10.3390/ma19020346.

31. L. Gryshchuk, K.M. Lyra, Z. Sideratou, F.K. Katsaros, S. Grishchuk, N. Hudzenko, M. Násner, J. Gallego, L. Staccioli, Chemically Modified Zein- and Poly(methyl vinyl ether-co-maleic anhydride)-Based Core–Shell Sub-Micro/Nanoparticles for Essential Oil

Delivery: Antibacterial Activity, Cytotoxicity, and Life Cycle Assessment. *Nanomaterials* 16, 139 (2026). DOI:10.3390/nano16020139.

32. Mavroidi, B., Lyra, K. M., Sideratou, Z., Tsiourvas, D. Hydrophilic and Lipophilic Carbon Dots Impart Thermosensitivity to Doxorubicin Loaded Phospholipid Liposomes. Pharmaceuticals, 19(5), 668 (2026). DOI: 10.3390/ph19050668

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.
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.
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.
EU Unitary patent number 3170872/07-06-2023 (published in European Patent Bulletin 23/2023).

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.