

PART I: GENERAL INFORMATION

GENOVA 10/05/2023

DATE PREPARED:**NAME:**

Despina Fragouli

OFFICE ADDRESS:

Smart Materials, Istituto Italiano di Tecnologia

Via Morego 30, 16163

Genoa, ITALY

EMAIL:**OFFICE PHONE:****MOBILE PHONE:****PLACE OF BIRTH:****EDUCATION:**

2001

Bachelor in Physics, Physics Department, University of Crete, Greece.

Specialization in “Atomic-Molecular Physics and Laser”.

Bachelor Thesis: “Investigation of photochemical phenomena during ablation of polymers with UV laser” in Collaboration with the Institute of Electronic Structure and Laser, Foundation of Research and Technology, Greece (IESL-FORTH).

2002

Master on Applied Molecular Spectroscopy, Department of Chemistry, University of Crete, Greece.

Thesis: “Development of a Multispectral Imaging System for the in vivo recording and analysis of the kinetics of the interaction of weak acids with tissue: Application on the diagnosis of cancer and pre cancer distortions” in Collaboration with IESL-FORTH and the department of Medicine, University of Crete, Greece.

- 2007 PhD in Chemistry, Department of Chemistry, University of Crete, Greece.
Thesis: “Development and application of an imaging technique for the study of organic films and substrates” in Collaboration with IESL-FORTH.

SCIENTIFIC ACTIVITY:

- 2007-2009 Postdoctoral-Fellow at NNL-National Nanotechnology Laboratory, CNR-Istituto di Nanoscienze, Lecce, Italy.
- 2009-2011 Senior Postdoctoral Fellow, Center for Biomolecular Nanotechnologies, Istituto Italiano di Tecnologia, Lecce, Italy.
- 2011-2016 Team Leader, Smart Materials Group, Nanophysics, Istituto Italiano di Tecnologia, Genoa, Italy.
- 2016-2022 Researcher, Smart Materials Group, Istituto Italiano di Tecnologia, Genoa, Italy.
- 2022-present Technologist, Smart Materials Group, Istituto Italiano di Tecnologia, Genoa, Italy.

ACADEMIC APPOINTMENTS:

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| 2022 | Docent (professor by contract) | Physics Department University of Genoa |
| 2022 | Invited Lecturer at the Lake Como 1st School of Supramolecular and Bio-Nanomaterials. | |
| 2021 | Docent (professor by contract) | Physics Department University of Genoa. |
| 2020 | Docent (professor by contract) | Physics Department University of Genoa. |
| 2018 | Invited Lecturer at the Summer School on Sustainable Development, Santa Chiara Lab, Siena. | |
| 2018 | Docent (professor by contract) | Physics Department University of Genoa. |
| 2001 | Laboratory assistant | Course of Physical Chemistry, Department of Chemistry, University of Crete. |

REGULAR REVIEWER OF THE JOURNALS:

Nature Nanotechnology, ASC Applied Materials and Interfaces, ACS Nano, Advanced Materials, Separation and Purification Technology, Environmental Pollution, Journal of Environmental Management, Chemical Engineering Journal, Carbohydrate Polymers, Environmental Science: Nano, etc.

AWARDS AND HONORS:

2001-2002 National Fellowship Foundation (IKY) Award for academic excellence, MSc student with the best ranking.

2011 TR35-Giovani Innovatori: top 10 Young innovators under 35 years old in Italy.

OTHER:

09/2014-03/2015 Maternity leave.

03/2018-09/2018 Maternity leave.

PART II SCIENTIFIC OUTCOMES

A. LIST OF PUBLICATIONS.

1. M. R. Shirzad Kebria, L. Bono, S. Khoshhal Salestan, A. Armirotti, R. Carzino, A. Athanassiou, D. Fragouli “Efficient removal of perfluorobutanesulfonic acid from water through a chitosan/polyethyleneimine xerogel” *Chemical Engineering Journal* **2023**, 466, 143236.
2. V. Tolardo, A. Romaldini, F. Fumagalli, A. Armirotti, M. Veronesi, D. Magrì, S. Sabella, A. Athanassiou, D. Fragouli “Polycarbonate nanoplastics and the in vitro assessment of their toxicological impact on liver functionality” *Environmental Science: Nano* **2023**, DOI: 10.1039/D2EN00963C
3. A. Senthamizhan, B. Balusamy, D. Debellis, J. A. Heredia-Guerrero, G. Mancini, R. Carzino, L. Ceseracciu, A. Athanassiou, D. Fragouli “Direct Conversion of Food Waste into 3D Porous Carbon Traps for Selective Adsorption of Cationic Dyes” *CLEAN–Soil, Air, Water* **2023**, 51, 2200284.
4. L. Vásquez, K. Dziza, S.-L. Loo, V. Binas, S. Stefa, G. Kiriakidis, A. Athanassiou, D. Fragouli “Highly performant nanocomposite cryogels for multicomponent oily wastewater filtration” *Separation and Purification Technology* **2022**, 303, 122252.
5. D. Kossyvaki, M. Contardi, A. Athanassiou, D. Fragouli “Colorimetric Indicators Based on Anthocyanin Polymer Composites: A Review” *Polymers* **2022**, 14(19), 4129.
6. V. Tolardo, D. Magrì, F. Fumagalli, D. Cassano, A. Athanassiou, D. Fragouli, S. Gioria “In Vitro High-Throughput Toxicological Assessment of Nanoplastics” *Nanomaterials* **2022**, 12 (12), 1947.
7. D. Kossyvaki, A. Barbeta, M. Contardi, M. Bustreo, K. Dziza, S. Lauciello, A. Athanassiou, D. Fragouli “Highly Porous Curcumin-Loaded Polymer Mats for Rapid Detection of Volatile Amines” *ACS Appl. Polymer Materials* **2022**, 4, 6, 4464–4475.
8. M. Contardi, A. Mah’d Moh’d Ayyoub, M. Summa, D. Kossyvaki, M. Fadda, N. Liessi, A. Armirotti, D. Fragouli, R. Bertorelli, A. Athanassiou “Self-Adhesive and Antioxidant Poly(vinylpyrrolidone)/Alginate-Based Bilayer Films Loaded with *Malva sylvestris* Extracts as Potential Skin Dressings” *ACS Applied Bio Materials* **2022**, 5, 6, 2880–2893.
9. S.-L. Loo, L. Vásquez, M. Zahid, F. Costantino, A. Athanassiou, D. Fragouli “3D Photothermal Cryogels for Solar-Driven Desalination” *ACS Appl. Mater. Interfaces* **2021**, 13, 26, 30542–30555.
10. M. S. Zafar, M. Zahid, A. Athanassiou, D. Fragouli “Biowaste-Derived Carbonized Bone for Solar Steam Generation and Seawater Desalination” *Adv. Sustainable Syst.* **2021**, 5, 2100031.

11. U. C. Paul, D. Fragouli, I. S. Bayer, A. Zych, A. Athanassiou “Effect of Green Plasticizer on the Performance of Microcrystalline Cellulose/Poly(lactic Acid) Biocomposites” *ACS Appl. Polym. Mater.* **2021**, 3, 6, 3071–3081.
12. D. Magrì, M. Veronesi, P. Sánchez-Moreno, V. Tolardo, T. Bandiera, P. P. Pompa, A. Athanassiou, D. Fragouli, “PET nanoplastics interactions with water contaminants and their impact on human cells” *Environmental Pollution*, **2021**, 271, 116262.
13. L. Vásquez, A. Davis, F. Gatto, M. N. An, F. Drago, P. P. Pompa, A. Athanassiou, D. Fragouli “Multifunctional PDMS polyHIPE filters for oil-water separation and antibacterial activity” *Separation and Purification Technology*, **2021**, 255, 117748.
14. F. Costantino, E. Cavaliere, L. Gavioli, R. Carzino, L. Leoncino, R. Brescia, A. Athanassiou, D. Fragouli “Photocatalytic Activity of Cellulose Acetate Nanoceria/Pt Hybrid Mats Driven by Visible Light Irradiation” *Polymers*, **2021**, 13 (6), 912.
15. S. -L. Loo, L. Vásquez, A. Athanassiou, D. Fragouli “Polymeric hydrogels—a promising platform in enhancing water security for a sustainable future” *Advanced Materials Interfaces*, **2021**, 8 (24), 2100580.
16. J. Zia, G. Mancini, M. Bustreo, A. Zych, R. Donno, A. Athanassiou, D. Fragouli “Porous pH natural indicators for acidic and basic vapor sensing” *Chemical Engineering Journal*, **2021**, 403, 126373.
17. A. Brachner, D. Fragouli, I. F. Duarte, P. Farias, S. Dembski, M. Ghosh, I. Barisic, D. Zdziebło, J. Vanoirbeek, P. Schwabl, W. Neuhaus “Assessment of Human Health Risks Posed by Nano-and Microplastics Is Currently Not Feasible” *International Journal of Environmental Research and Public Health*, **2020**, 17 (23), 8832.
18. F. Costantino, A. Armirotti, R. Carzino, L. Gavioli, A. Athanassiou, D. Fragouli “In situ formation of SnO₂ nanoparticles on cellulose acetate fibrous membranes for the photocatalytic degradation of organic dyes” *Journal of Photochemistry and Photobiology A: Chemistry*, **2020**, 398, 112599.
19. J. Pinto, S. Barroso-Solares, D. Magrì, F. Palazon, S. Lauciello, A. Athanassiou, D. Fragouli “Melamine Foams Decorated with in-Situ Synthesized Gold and Palladium Nanoparticles” *Polymers*, **2020**, 12, 934.
20. S. L. Loo, L. Vasquez, U. C. Paul, L. Campagnolo, A. Athanassiou, D. Fragouli “Solar-Driven Freshwater Generation from Seawater and Atmospheric Moisture Enabled by a Hydrophilic Photothermal Foam” *ACS Applied Materials & Interfaces*, **2020**, 12 (9), 10307-10316.
21. L. Campagnolo, S. Lauciello, A. Athanassiou, D. Fragouli “Au/ZnO hybrid nanostructures on electrospun polymeric mats for improved photocatalytic degradation of organic pollutants” *Water*, **2019**, 11 (9), 17873.
22. L. Vásquez, L. Campagnolo, A. Athanassiou, D. Fragouli “Expanded Graphite-Polyurethane Foams for Water–Oil Filtration” *ACS applied materials & interfaces*, **2019**, 11 (33), 30207-30217.

23. G. Nanni, J. A. Heredia-Guerrero, U. C. Paul, S. Dante, G. Caputo, C. Canale, A. Athanassiou, D. Fragouli, I. S. Bayer “Poly (furfuryl alcohol)-polycaprolactone blends” *Polymers*, **2019**, 11 (6), 1069.
24. A. Senthamizhan, D. Fragouli, B. Balusamy, B. Patil, M. Palei, S. Sabella, T. Uyar, A. Athanassiou “Hydrochromic carbon dots as smart sensors for water sensing in organic solvents” *Nanoscale Advances*, **2019**, 1 (11), 4258-4267.
25. J. Zia, U. C. Paul, J. A. Heredia-Guerrero, A. Athanassiou, D. Fragouli “Low-density polyethylene/curcumin melt extruded composites with enhanced vapor barrier and antioxidant properties for active food packaging” *Polymer*, **2019**, 175, 137-145.
26. R. Bentini, A. Pola, L. G. Rizzi, A. Athanassiou, D. Fragouli “A Highly Porous Solvent Free PVDF/Expanded Graphite Foam for Oil/Water Separation” *Chem. Eng. J.*, **2019**, 372, 1174-1182.
27. L. Campagnolo, D. Morselli, D. Magrì, A. Scarpellini, C. Demirci, M. Colombo, A. Athanassiou, D. Fragouli “Silk Fibroin/Orange Peel Foam: An Efficient Biocomposite for Water Remediation” *Adv. Sustainable Syst.* **2019**, 3(1), 1800097.
28. M. E. Genovese, S. Abraham, G. Caputo, G. Nanni, S. K. Kumaran, C. D. Montemagno, A. Athanassiou, and D. Fragouli “Photochromic Paper Indicators for Acidic Food Spoilage Detection” *ACS Omega*, **2018**, 3, 10, 13484-13493.
29. S. Barroso-Solares, J. Pinto, D. Fragouli and A. Athanassiou “Facile Oil Removal from Water-in-Oil Stable Emulsions Using PU Foams” *Materials* **2018**, 11, 2382.
30. D. Morselli, L. Campagnolo, M. Prato, E.L. Papadopoulou, A. Scarpellini, A. Athanassiou, and D. Fragouli “Ceria/Gold Nanoparticles in Situ Synthesized on Polymeric Membranes with Enhanced Photocatalytic and Radical Scavenging Activity” *ACS Appl. Nano Mater.* **2018**, 1, 10, 5601-5611.
31. D. Magrì, P. Sánchez-Moreno, G. Caputo, F. Gatto, M. Veronesi, G. Bardi, T. Catelani, D. Guarnieri, A. Athanassiou, P. P. Pompa, D. Fragouli “Laser ablation as a versatile tool to mimic polyethylene terephthalate nanoplastic pollutants: characterization and toxicology assessment” *ACS Nano* **2018**, 12, 8, 7690-7700.
32. J. Feng, A. Athanassiou, F. Bonaccorso, D. Fragouli “Enhanced electrical conductivity of poly (methyl methacrylate) filled with graphene and in situ synthesized gold nanoparticles” *Nano Futures* **2018**, 2 (2), 025003.
33. D. Magrì, G. Caputo, G. Perotto, A. Scarpellini, E. Colusso, F. Drago, A. Martucci, A. Athanassiou, D. Fragouli “Titanate Fibroin Nanocomposites: A Novel Approach for the Removal of Heavy-Metal Ions from water” *ACS Applied Materials and Interfaces* **2018**, 10 (1), 651-659.

34. J. Pinto, D. Magrì, P. Valentini, F. Palazon, J.A. Heredia-Guerrero, S. Lauciello S. Barroso-Solares, L. Ceseracciu, P. P. Pompa, A. Athanassiou, D. Fragouli “Antibacterial Melamine Foams Decorated with in Situ Synthesized Silver Nanoparticles” *ACS Applied Materials and Interfaces* **2018**, 10 (18), 16095-16104.
35. J. Pinto, A. Athanassiou, D. Fragouli “Surface modification of polymeric foams for oil spills remediation” *Journal of Environmental Management* **2018**, 206, 872-889.
36. S. Barroso-Solares, J. Pinto, G. Nanni, D. Fragouli, A. Athanassiou “Enhanced oil removal from water in oil stable emulsions using electrospun nanocomposite fiber mats” *RSC Advances* **2018**, 8 (14), 7641-7650.
37. M.E. Genovese, G. Caputo, G. Nanni, C. Setti, M. Bustreo, G. Perotto, A. Athanassiou, D. Fragouli “Light Responsive Silk Nanofibers: An Optochemical Platform for Environmental Applications” *ACS Applied Materials and Interfaces* **2017**, 9 (46), 40707-40715.
38. J. Pinto, J.A. Heredia-Guerrero, A. Athanassiou, D. Fragouli “Reusable nanocomposite-coated polyurethane foams for the remediation of oil spills” *International Journal of Environmental Science and Technology* **2017**, 14 (10), 2055-2066.
39. A. Mescola, C. Canale, D. Fragouli, A. Athanassiou “Controlled formation of gold nanostructures on biopolymer films upon electromagnetic radiation” *Nanotechnology* **2017**, 28 (41), 415601.
40. J. Pinto, D. Morselli, V. Bernardo, B. Notario, D. Fragouli, M. A. Rodriguez-Perez, A. Athanassiou “Nanoporous PMMA foams with templated pore size obtained by localized in situ synthesis of nanoparticles and CO₂ foaming” *Polymer* **2017**, 124, 176-185.
41. D. Morselli, P. Valentini, G. Perotto, A. Scarpellini, P. P. Pompa, A. Athanassiou, D. Fragouli “Thermally-induced in situ growth of ZnO nanoparticles in polymeric fibrous membranes” *Composites Science and Technology* **2017**, 149, 11-19.
42. D. Fragouli, A. Athanassiou “Oil spill recovery: Graphene heaters absorb faster” *Nature Nanotechnology* **2017**, 12 (5), 406-407.
43. G. Caputo, A. Scarpellini, F. Palazon, A. Athanassiou, D. Fragouli “One-Pot Hybrid SnO₂/Poly (methyl methacrylate) Nanocomposite Formation through Pulsed Laser Irradiation” *ChemPhysChem* **2017**, 18, 1–8.
44. M. G. Zahedi, I. Ennen, S. Marchi, M.J. Barthel, A. Hütten, A. Athanassiou, D. Fragouli “Formation of magnetically anisotropic composite films at low magnetic fields” *Smart Materials and Structures* **2017**, 26 (4), art. no. 045018.
45. M.E. Genovese, E. Colusso, M. Colombo, A. Martucci, A. Athanassiou, D. Fragouli “Acidochromic fibrous polymer composites for rapid gas detection” *Journal of Materials Chemistry A* **2017**, 5 (1), 339-348.

46. U.C. Paul, D. Fragouli, I.S. Bayer, E. Mele, C. Conchione, R. Cingolani, S. Moret, A. Athanassiou “Mineral oil barrier sequential polymer treatment for recycled paper products in food packaging” *Materials Research Express* **2017**, 4 (1), 015501.
47. M. Mehrabian, D. Morselli, G. Caputo, A. Scarpellini, F. Palazon, A. Athanassiou, D. Fragouli “Laser-induced in situ synthesis of Pd and Pt nanoparticles on polymer films” *Applied Physics A: Materials Science and Processing* **2016**, 122 (12), 1075.
48. A.A. Chavan, J. Pinto, I. Liakos, I. S. Bayer, S. Lauciello, A. Athanassiou and D. Fragouli “Spent Coffee Bioelastomeric Composite Foams for the Removal of Pb²⁺ and Hg²⁺ from Water” *ACS Sustainable Chem. Eng* **2016**, 4 (10), 5495-5502.
49. S. Barroso-Solares, M.G. Zahedi, J. Pinto, G. Nanni, D. Fragouli, A. Athanassiou “Oil removal from water-oil emulsions using magnetic nanocomposite fibrous mats” *RSC Adv.* **2016**, 6(75), 71100-71107.
50. U.C. Paul, D. Fragouli, I.S. Bayer, A. Athanassiou “Functionalized cellulose networks for efficient oil removal from oil-water emulsions” *Polymers* **2016**, 8 (2), 52
51. J. Pinto, A. Athanassiou, D. Fragouli "Effect of the porous structure of polymer foams on the remediation of oil spills", *J. Phys. D: Appl. Phys.* **2016**, 49(14), 145601.
52. D. Morselli, A. Scarpellini, A. Athanassiou, D. Fragouli “Single step in situ formation of porous zinc oxide/PMMA nanocomposites by pulsed laser irradiation: Kinetic aspects and mechanisms” *RSC Adv.* **2016**, 6 (14), 11412-11418.
53. M.E. Genovese, A. Athanassiou, D. Fragouli “Photoactivated acidochromic elastomeric films for on demand acidic vapor sensing” *J. Mater. Chem. A* **2015**, 3 (44), 22441-22447.
54. M. Mehrabian, D. Fragouli, D. Morselli, A. Scarpellini, G.C. Anyfantis, A. Athanassiou “Laser-induced localized formation of silver nanoparticles on chitosan films: Study on particles size and density variation” *Mater. Res. Express* **2015**, 2 (10), 105014,
55. S. Marchi, A. Casu, F. Bertora, A. Athanassiou, D. Fragouli “Highly Magneto-Responsive Elastomeric Films Created by a Two-Step Fabrication Process” *ACS Appl. Mater. Interfaces* **2015**, 7 (34), 19112-19118.
56. A.A. Chavan, H. Li, A. Scarpellini, S. Marras, L. Manna, A. Athanassiou, D. Fragouli “Elastomeric nanocomposite foams for the removal of heavy metal ions from water” *ACS Appl. Mater. Interfaces* **2015**, 7 (27), 14778-14784.
57. G. Nanni, L. Ceseracciu, R. Oropesa-Nuñez, C. Canale, P. Salvatore, D. Fragouli, A. Athanassiou “Tunable Friction Behavior of Photochromic Fibrillar Surfaces” *Langmuir* **2015**, 31 (22), 6072-6077.

58. A. Milionis, D. Fragouli, F. Brandi, I. Liakos, S. Barroso, R. Ruffilli, A. Athanassiou “Superhydrophobic/superoleophilic magnetic elastomers by laser ablation” *Appl. Surf. Sci.* **2015**, 351, 74-82.
59. G. Nanni, D. Fragouli, L. Ceseracciu and A. Athanassiou “Adhesion of elastomeric surfaces structured with micro-dimples” *Appl. Surf. Sci.* **2015**, 326, 145-150.
60. A. Das, M. Raffi, C.M. Megaridis, D. Fragouli, C. Innocenti and A. Athanassiou “Magnetite (Fe₃O₄)-filled carbon nanofibers as electro-conducting/superparamagnetic nanohybrids and their multifunctional polymer composites” *J. Nanopart. Res.* **2015**, 17(1), 14p.
61. M. Ghazi Zahedi, D. Lorenzo, R. Brescia, R. Ruffilli, I. Liakos, T. Pellegrino, A. Athanassiou and D. Fragouli “Magnetic-Field-Induced Formation of Superparamagnetic Microwires in Suspension” 2014, *J. Phys. Chem. C* **2014**, 118(48), 28220-28226.
62. E. Mele, G. C. Anyfantis, D. Fragouli, R. Ruffilli and A. Athanassiou “Localized synthesis of gold nanoparticles in anisotropic alginate structures” *RSC Adv.* **2014**, 4(39), 20449-20453.
63. D. Fragouli, A. Das, C. Innocenti, Y. Guttikonda, S. Rahman, L. Liu, V. Caramia, C. M. Megaridis and A. Athanassiou “Polymeric films with electric and magnetic anisotropy due to magnetically assembled functional nanofibers” *ACS Appl. Mater. Interfaces* **2014**, 6(6), 4535–4541.
64. P. Calcagnile, D. Fragouli, E. Mele, R. Ruffilli and A. Athanassiou “Polymeric foams with functional nanocomposite cells” *RSC Adv.* **2014**, 4(37), 19177-19182.
65. R. Oropesa-Nuñez, D. Fragouli, F. Pignatelli, A. Scarpellini, E. Gigliotti, E. Samoylova, and A. Athanassiou “Spontaneous formation of photochromic coatings made of reversible micro- and nano-fibrils on an elastomer substrate” *Langmuir* **2014**, 30(43), 13058-13064.
66. A. Milionis, D. Fragouli, L. Martiradonna, G. C. Anyfantis, P. D. Cozzoli, I. S. Bayer and A. Athanassiou, “Spatially Controlled Surface Energy Traps on Superhydrophobic Surfaces” *ACS Appl. Mater. Interfaces* **2014**, 6(2), 1036–1043.
67. D. Fragouli, B. Torre, F. Villafiorita-Monteleone, A. Kostopoulou, G. Nanni, A. Falqui, A. Casu, A. Lappas, R. Cingolani and A. Athanassiou, “Nanocomposite Pattern-Mediated Magnetic Interactions for Localized Deposition of Nanomaterials” *ACS Appl. Mater. Interfaces* **2013**, 5(15), 7253–7257.
68. E. Mele, D. Fragouli, R. Ruffilli, G. L. De Gregorio, R. Cingolani and A. Athanassiou “Complex architectures formed by alginate drops floating on liquid surfaces” *Soft Matter* **2013**, 9(27), 6338-6343.
69. F. Pisanello, R. De Paolis, D. Lorenzo, P. Guardia, S. Nitti, G. Monti, D. Fragouli, A. Athanassiou, L. Tarricone, L. Manna, M. De Vittorio, L. Martiradonna “GHz Properties of Magnetophoretically Aligned Iron-Oxide Nanoparticle Doped Polymers”, *ACS Appl. Mater. Interfaces* **2013**, 5(8), 2908–2914.

70. F. Pisanello, R. De Paolis, D. Lorenzo, S. Nitti, G. Monti, D. Fragouli, A. Athanassiou, L. Manna, L. Tarricone, M. De Vittorio, L. Martiradonna “Radiofrequency characterization of polydimethylsiloxane – iron oxide based nanocomposites” *Microelectr. Eng.* **2013**, 111, 46–51.
71. F. Ayadi, I. S. Bayer, D. Fragouli, I. Liakos, R. Cingolani, A. Athanassiou, “Mechanical reinforcement and water repellency induced to cellulose sheets by a polymer treatment.” *Cellulose* **2013**, 20, 1501-1509.
72. D. Lorenzo, D. Fragouli, G. C. Anyfantis, R. Cingolani, A. Athanassiou “Magnetic Field induced formation of magnetic wires into thin elastic membranes with controlled properties.” *Advances in Science and Technology* **2013**, 77, 343-347.
73. P. Calcagnile, D. Fragouli, I. S. Bayer, G. C. Anyfantis, A. Athanassiou “Magnetoactive Superhydrophobic Foams for Oil-Water Separation” *Advances in Science and Technology* **2013**, 77, 159-164.
74. A. Milionis, L. Martiradonna, G. C. Anyfantis, I. S. Bayer, D. Fragouli, A. Athanassiou, “Control of the water adhesion on hydrophobic micropillars by spray coating technique” *Colloid & Polymer Science* **2013**, 291, 2, 401-407.
75. D. Lorenzo, D. Fragouli, G. Bertoni, C. Innocenti, G. C. Anyfantis, P. D. Cozzoli, R. Cingolani, A. Athanassiou, “Formation and magnetic manipulation of periodically aligned microchains in thin plastic membranes” *J. Appl. Phys.* **2012**, 112, 083927.
76. F. Villafiorita-Monteleone, E. Mele, G. Caputo, F. Spano, S. Girardo, P. D. Cozzoli, D. Pisignano, R. Cingolani, D. Fragouli and A. Athanassiou, “Optically controlled liquid flow in initially prohibited elastomeric nanocomposite micro-paths”, *RSC Adv.* **2012**, 2, 9543–9550.
77. G. Nanni, S. Petroni, D. Fragouli, M. Amato, M. De Vittorio, A. Athanassiou “Microfabrication of magnetically actuated PDMS-Iron composite membranes”, *Microelectr. Eng.* **2012**, 98, 607–609.
78. P. Calcagnile, D. Fragouli, I. S. Bayer, G. C. Anyfantis, L. Martiradonna, P. D. Cozzoli, R. Cingolani, A. Athanassiou, “Magnetically Driven Floating Foams for the Removal of Oil Contaminants from Water”, *ACS Nano* **2012**, 6 (6), 5413–5419.
79. F. Spano, A. Castellano, A. Massaro, D. Fragouli, R. Cingolani, A. Athanassiou “Wettability control by laser texturing process generating localized gold nanoparticles on polymeric thin films” *J. Nanosc. Nanotech.* **2012**, 12, 4820-4824.
80. A. Camposeo, M. Polo, A. A. R. Neves, D. Fragouli, L. Persano, S. Molle, A. M. Laera, E. Piscopiello, V. Resta, A. Athanassiou, R. Cingolani, L. Tapfer and D. Pisignano “Multi-photon in situ synthesis and patterning of polymer-embedded nanocrystals” *J. Mater. Chem.* **2012**, 22, 9787-9793.

81. D. Fragouli, I. S. Bayer, R. Di Corato, R. Brescia, G. Bertoni, C. Innocenti, D. Gatteschi, T. Pellegrino, R. Cingolani and A. Athanassiou “Superparamagnetic cellulose fiber networks via nanocomposite functionalization” *J. Mater. Chem.* **2012**, 22, 1662-1666.
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