

CURRICULUM VITAE

ANGELIKI D. TSEREPI

Director of Research

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Dr. **Angeliki Tserepi** (ORCID ID: 0000-0002-5426-1383) is Director of Research at the Institute of Nanoscience & Nanotechnology, NCSR "Demokritos". She received the B.Sc. Degree in Physics from the Univ. of Athens, and the M.Sc. and Ph.D. degrees in Chemical Physics from the Ohio State University, USA. She held a Post-Doctoral "Marie Curie" Fellowship (Human Capital and Mobility of Researchers) at the University Joseph Fourier, Grenoble, France, and a "Marie Curie" Return Grant (Training & Mobility of Researchers) at IMEL-NCSR "Demokritos", Greece. She joined IMEL as researcher in 2003.

She was Program Chair of Micro and Nano Engineering Conference (2019), Chair of SPIE Microtechnologies "BioMEMS and Medical Microdevices" (2013), co-chair of Micro and Nano Engineering (2008), in the organizing committee of Eurosensors (2011) and iPlasmaNano (2016), in the local organizing committee of Europt(r)ode (2014), and in the International Program Committee (IPC) of Micro & Nano Engineering Conference (since 2008) and μ TAS (2012-2015). She is Editorial Board member of *Biosensors* (MDPI) and *Micromachines* (MDPI), member of the Editorial Advisory Board for the *Micro and Nanosystems* journal and Guest Editor of four (4) Special Issues (in *Microelectronic Engineering*, *Micro and Nano Engineering*, *SPIE*, and *Micromachines*). She serves as regular reviewer in more than 20 peer-reviewed journals and has served as evaluator in various national and international research agencies (European Research Council (ERC), French National Research Agency (ANR), Netherlands Organization for Scientific Research (NWO), CRG KAUST, ELIDEK).

She has received several honors including two scholarships from the Greek State Scholarships Foundation, and the 2nd award in the Innovation Contest "Greece Innovates" of the Hellenic Industries Association & Eurobank (2013, co-leader of the awarded team). She has participated in 25 national and European projects (coordinator or principal investigator in 9 of them). She is co-inventor of 12 patent families, author or co-author of more than 130 articles in peer-reviewed journals, 14 articles in peer-reviewed Conference Proceedings and 2 chapters in books (**6519 citations** and **h-index=45**, google scholar). She is co-founder of a spin-off company (*Nanoplasmas PC*) and has acted as advisor of a spin-out company (*Diagnostics-on-Board, Ltd*).

During the period 2003-2010, she was responsible for the education activities of IMEL-NCSR "Demokritos". She is now member of the Committee for Research Exploitation and coordinator & member of the Gender Equality Committee at NCSR "Demokritos". She has supervised or supervises 6 PhD and 16 Master theses, and she is/was member of the advisory committee of 10 PhD theses.

Her **research interests** include: Development of microfluidic/lab-on-a-chip devices and biomolecule microarrays for food safety and disease diagnostics, where the PCB-based approach emerges as a promising manufacturing technology. Organ-on-a-chip platforms. Mechanisms for liquid transport at the microscale. Plasma-based patterning and surface engineering of materials for control of wettability (with focus on superhydrophobicity/ superhydrophilicity, oleophobicity), biomolecule immobilization and cell adhesion on surfaces, as well as antibacterial surfaces.

EDUCATION

Post-graduate studies:

Ph.D. Chemical Physics Program, The Ohio State University, USA (1994)

M.Sc. Physics Department, The Ohio State University, USA (1989)

Graduate studies: Physics Department, National & Kapodistrian University of Athens (1985)

PROFESSIONAL POSITIONS

Jan. 2013-today: Director of Research (A'), Institute of Nanoscience & Nanotechnology (INN), NCSR «Demokritos»

March 2007- Dec. 2012: Associate Researcher (B'), Institute of Nanoscience & Nanotechnology (INN), NCSR «Demokritos»

July 2003-Feb. 2007: Assistant Researcher (C'), Institute of Nanoscience & Nanotechnology (INN), NCSR «Demokritos»

Jan. 1998- June 2003: Συνεργαζόμενη Ερευνήτρια, Institute of Nanoscience & Nanotechnology (INN), NCSR «Demokritos»

Sept. 1996- Aug. 1997: Post-doctoral Fellow “Marie Curie”, Training and Mobility of Researchers, Institute of Microelectronics, NCSR “Demokritos”

June 1994-March 1996: Post-doctoral European “Marie Curie” Fellow, Human Capital and Mobility Programme, Laboratoire de Spectrométrie Physique, Université Joseph-Fourier-Grenoble, France

June 1989- June 1994: Graduate Research Associate, Department of Chemistry, The Ohio State University, USA

Sept. 1985-Jan. 1989: Graduate Teaching Associate, Department of Physics, The Ohio State University, USA

FUNDED RESEARCH PROJECTS:

- as **Coordinator, Principal Investigator, Scientist in Charge, or Grant Holder:**

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role</i>	<i>Theme</i>
DIAMOND	GSRT-EΔK	393.292,00	18/07/2018 - 17/01/2022	PI	Lab-on-PCB & automated point-of-care for rapid disease diagnosis
Industrial Fellowships	Stavros Niarchos	82.950,00	Aug. 2018- Aug. 2021	Sci. in charge	Rapid and Accurate Detection of Bacteria

	Foundation				in Water using microfluidics
LOVEFOOD2Market	European Commission-H2020	1.006.952,99	01/02/2016 - 30/04/2019	Co-PI	Lab-on-chip and instrument for food-borne pathogen detection
LOVEFOOD	European Commission-FP7	662.216,20	01/09/2012 - 29/02/2016	PI	Microfluidic modules and biosensors for food-borne pathogen detection
LAMBSENSE	GSRT-Synergasia II	118.760,00	1/10/2013-1/08/2015	PI	Diagnostic platform incorporating micro-PCR for DNA amplification & LAMB wave biochips as the sensing element
DoW	GSRT-Post doctoral Research 2010	150.000,00	7/12/2011-6/12/2014	Sci. in charge	Miniaturized platform applied to the diagnosis of genetic diseases
CORSED	GSRT-Post doctoral Research 2010	150.000,00	21/6/2012-20/6/2015	Sci. in charge	Control of Surface Roughness by Simultaneous to Plasma Etching Deposition
DESIREDROP	GSRT-Thalis	539.978,40	1/02/2012-1/10/2015	Coordinator	Superhydrophobic & superhydrophilic surfaces fabricated on polymeric substrates and incorporated in microfluidic devices
DEMOEREYNA 2005	NCSR "D" competitive projects	15.000,00	1/01/2007-30/06/2008	Sci. In charge	Patterning of substrates in the micro- and nanoscale for the creation of protein microarrays
PENED	GSRT	162.922,00	07/11/2005-06/11/2008	Coordinator	Fabrication, properties, and actuation technologies of microfluidic devices
PLATON	GSRT-bilateral	11.710,00	18/11/1999-17/11/2001	Sci. in charge	New photoresist materials in VUV and low-k dielectrics
TMR (Training and Mobility of Researchers)	FP4-TMR, Marie Curie post-doc fellowship	36.432,00	1/9/1996-31/08/1997	Grant holder	Plasma Diagnostics in the Processing of Si-based Nanostructures in Fluorocarbon Chemistries
Human Capital and Mobility of	EC, Marie Curie, post-		1/07/1994-30/04/1996	Grant holder	Interaction of atomic and molecular species

Researchers	doc fellowship				with surfaces in plasma processing of polymers
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- as **participating** researcher in:
seven (7) european, two (2) bilateral, and eight (8) national projects

PUBLICATIONS (h-index=45, citations=6519)

- **Filed Patents** (12)
- **Publications** in peer-reviewed scientific journals (134)
- **Editing** of Volume Proceedings (4)
- **Articles** or **Chapters** in **Books** (6)

OTHER SCIENTIFIC ACTIVITIES

- Participation in the organization of International Conferences
 - **Program Chair** of *Micro- & Nano- Engineering Conference 2019* (MNE19)
 - **chair** of the Conference “*BioMEMS & Medical Microdevices*”, in SPIE Microtechnologies 2013
 - member of the organizing committee of Workshop *MiNaSens* “Miniaturized Biochemical Sensing Devices and Systems for Health/Food/Environmental Monitoring” 2013
 - member (**chair, Euroensors School**) of the organizing committee of *Euroensors 2011*
 - **co-chair** of the organizing committee of *Micro- & Nano- Engineering Conference 2008* (MNE08)
 - member of the local organizing committee of *iPlasmaNano 2016*
 - member of the International Program Committee (IPC) of Micro- & Nano- Engineering Conference (since 2008) and μ TAS (2012-2015)
- Member of the **Editorial Board** of *Micromachines*, member of the Editorial Board of *Biosensors* (MDPI), member of the **editorial Advisory Board** for the journal *Micro and Nanosystems*
- **Reviewer** in **31** scientific journals (Applied Surface Science, Biofabrication, Biomedical Physics and Engineering Express IOP, Biomicrofluidics, Catalysts MDPI, Coatings MDPI, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Colloids & Surfaces B: Biointerfaces, International Materials Reviews, Iranian Polymer Journal, Journal of Micromechanics & Microengineering IOP, Journal of Physics D, Journal of Vacuum Science & Technology, Materials Research Express IOP, Microelectronic Engineering, Materials & Design, Micro & Nanoletters, Micromachines MDPI, Microfluidics & Nanofluidics, Nanoscale RSC, Plasma Processes & Polymers, Polymers MDPI, RSC Advances, Sensors & Actuators A: Physical, Sensors & Actuators B: Chemical, Sensors MDPI, Surface & Coatings Technology, Scientia Iranica, Surface & Interface Analysis, Surface Topography: Metrology & Properties IOP, Thin Solid Films)

- **Reviewer** of research projects for: French National Research Agency (ANR)-2008, the European Research Council (ERC) Programs-2016, the Netherlands Organization for Scientific Research (NWO)-2017, the CRG KAUST program-2017, and ELIDEK-2017.
- **Responsible for Education** activities, IMEL-NCSR “Demokritos” (2003-2010)
- Member of the **Committee for Research Exploitation** of NCSR “Demokritos” (2020-today)
- **Coordinator** and member of the **Gender Equality Committee** at NCSR “Demokritos” (2021-today)
- **Entrepreneurship** experience: Co-founder of a NCSR-D spin-off, *Nanoplasmas*, founded by members of the Plasma group, INN. In addition, she acted as advisor of a spin-out company, *Diagnostics-on-Board* (DXB).

RESEARCH SUPERVISOR in:

6 PhD theses and **15 Master** Theses, member of the **advising committee** of **10 PhDs**

ARTICLES IN PEER-REVIEWED JOURNALS

- 134.** *Modeling heat losses in microfluidic devices: the case of static chamber devices for DNA amplification*
V. Papadopoulos, I. Kefala, G.D. Kaprou, A. Tserepi, G. Kokkoris
Int. Journal of Heat and Mass Transfer 184, 122011 (2022)
- 133.** [*Real-Time Monitoring and Quantification of Underwater Superhydrophobicity*](#)
A. Smyrnakis, D. Ioannou, K. Ellinas, A. Tserepi, E. Gogolides
Advanced Materials Interfaces, 2101393 (2021)
- 132.** *Isothermal Recombinase Polymerase Amplification (RPA) of E. coli gDNA in commercially fabricated PCB-based microfluidic platforms*
M. Georgoutsou-Spyridonos, M. Filippidou, GD Kaprou, DC Mastellos, S. Chatzandroulis, A. Tserepi
Micromachines 12, 1387 (2021)
- 131.** *Bactericidal Action of Smooth and Plasma Micro-Nanotextured Polymeric Surfaces with Varying Wettability, Enhanced by Incorporation of a Biocidal Agent*
P. Dimitrakellis, K. Ellinas, G.D. Kaprou, D.C. Mastellos, A. Tserepi, and E. Gogolides,
Macromolecular Materials & Engineering 2000694 (10p) (2021)
- 130.** *Fabrication of a 3D microfluidic cell culture device for bone marrow-on-a-chip*
D. Kefallinou, M. Grigoriou, D.T. Boumpas, E. Gogolides and A. Tserepi, Micro & Nano Engineering 100075 (2020)
- 129.** *Lab-on-Chip platform and protocol for rapid foodborne pathogen detection comprising on-chip cell capture, lysis, DNA amplification and surface-acoustic-wave detection*
K. Tsougeni, G.D. Kaprou, CM. Loukas, G Papadakis, A Hamiot, M Eck, D Rabus, G Kokkoris, S Chatzandroulis, V Papadopoulos, B Dupuy, G Jobst, E Gizeli, A Tserepi, E Gogolides
Sensors and Actuators B: Chem. 128345 (2020)
- 128.** *Oxygen plasma micro-nanostructured PMMA plates and microfluidics for increased adhesion and proliferation of cancer versus normal cells: The role of surface roughness and disorder*
A. Kanioura, V. Constantoudis, P Petrou, D Kletsas, A Tserepi, E Gogolides, M. Chatzichristidi, S. Kakambakos, Micro and Nano Engineering 100060 (2020)
- 127.** *Towards PCB-Based Miniaturized Thermocyclers for DNA Amplification*
G.D. Kaprou, V. Papadopoulos, CM. Loukas, G. Kokkoris, A. Tserepi, Micromachines 11 (3), 258 (2020)
- 126.** *Optimization of Antibacterial Properties of “Hybrid” Metal-Sputtered Superhydrophobic Surfaces*
D. Kefallinou, K. Ellinas, Th. Speliotis, K. Stamatakis, E. Gogolides and A. Tserepi, Coatings 10(1), 25 (2020)
- 125.** *Three-dimensional (3D) hierarchical oxygen plasma micro-nanostructured polymeric substrates for selective enrichment of cancer cells from mixtures with normal ones*

- A. Kanioura, PS. Petrou, D. Kletsas, A. Tserepi, M. Chatzichristidi, E. Gogolides, S. Kakambakos, Colloids & Surfaces B: Biointerfaces 110675 (2019)
- 124.** *Detection of BRCA1 gene on partially reduced graphene oxide biosensors*
M.K. Filippidou, C.M. Loukas, G.D. Kaprou, PS. Petrou, S. Kakambakos, A. Tserepi, S. Chatzandroulis
Microel. Engineering 216, 111093 (2019)
- 123.** *Ultrafast, low-power, PCB manufacturable, continuous-flow microdevice for DNA amplification*
G.D. Kaprou, V. Papadopoulos, D.P. Papageorgiou, I. Kefala, G. Papadakis, E. Gizeli, S. Chatzandroulis, G. Kokkoris, A. Tserepi
Anal. Bioanal. Chem. 1-11 (2019)
- 122.** *A modular integrated lab-on-a-chip platform for fast and highly efficient sample preparation for foodborne pathogen screening*
K. Tsougeni, A. Kastania, G.D. Kaprou, M. Eck, G. Jobst, P.S. Petrou, S.E. Kakambakos, D. Mastellos, E. Gogolides, A. Tserepi
Sensors and Actuators B: Chem. 288, pp 171-179 (2019)
- 121.** *Superhydrophobic Fabrics with Mechanical Durability Prepared by a Two Step Plasma Processing Method*
Kosmas Ellinas, Angeliki Tserepi, Evangelos Gogolides
Coatings (2018)
- 120.** *Micro-nano-bio acoustic system for the detection of foodborne pathogens in real samples*
G. Papadakis, P. Murasova, A. Hamiot, K. Tsougeni, G. Kaprou, M. Eck, D. Rabus, Z. Bilkova, B. Dupuy, G. Jobst, A. Tserepi, E. Gogolides, E. Gizeli
Biosensors and Bioelectronics **111**, pp. 52-58 (2018)
- 119.** *How to Achieve Reversible Electrowetting on Superhydrophobic Surfaces*
M.E. Kavousanakis, N.T. Chamakos, K. Ellinas, A. Tserepi, E. Gogolides, and A.G. Papatthasiou
Langmuir **34** (14), pp 4173–4179 (2018)
- 118.** *3D Plasma Nanotextured® Polymeric Surfaces for Protein or Antibody Arrays, and Biomolecule and Cell Patterning*
K. Tsougeni, K. Ellinas, G. Koukouvinos, P.S. Petrou, A. Tserepi, S. E. Kakabakos, E. Gogolides
Cell-based Microarrays Springer **165**, pp 27-40 (2018)
- 117.** *Three-dimensional (3D) plasma micro-nanotextured slides for high performance biomolecule microarrays: Comparison with epoxy-silane coated glass slides*
K. Tsougeni, K. Ellinas, G. Koukouvinos, P.S. Petrou, A. Tserepi, S. E. Kakabakos, E. Gogolides
Colloids & Surfaces B: Biointerfaces **165**, pp 270-277 (2018)
- 116.** *Stable hydrophilization of FR4 and polyimide-based substrates implemented in microfluidics-on-PCB*
E. Cunaj, P.S. Petrou, G.D. Kaprou, S.E. Kakabakos, E. Gogolides, A. Tserepi
Surf. & Coat. Technology **334**, pp 292-299 (2018)
- 115.** [*Is There a Threshold in the Antibacterial Action of Superhydrophobic Surfaces?*](#)
K. Ellinas, D. Kefallinou, K. Stamatakis, E. Gogolides, and A. Tserepi

ACS applied materials & interfaces 9 (45), 39781-39789 (2017)

- 114.** [*Durable superhydrophobic and superamphiphobic polymeric surfaces and their applications: A review*](#)
K. Ellinas, A. Tserepi, E. Gogolides
Advances in colloid and interface science **250**, pp. 132-157 (2017)
- 113.** [*The Lab-on-PCB approach: Tackling the mTAS commercial upscaling bottleneck \(Critical Review\)*](#)
D. Moschou and A. Tserepi,
Lab-Chip **17**, pp 1388-1405 (2017)
- 112.** *Micro-bead immunoassays for the detection of IL6 and PDGF-2 proteins on a microfluidic platform, incorporating superhydrophobic passive valves*
K. Ellinas, V. Pliaka, G. Kanakaris A. Tserepi L.G. Alexopoulos, E. Gogolides,
Microelectronic Engineering **175**, pp 73–80 (2017)
- 111.** *Roughness threshold for cell attachment and proliferation on plasma micro-nanotextured polymeric surfaces: the case of primary human skin fibroblasts and mouse immortalized 3T3 fibroblasts*
A. Bourkoula, V. Constantoudis, D. Kontziampasis, P. S. Petrou, S. E. Kakabakos, A. Tserepi and E. Gogolides
Journal of Physics D: Applied Physics, **49**, 304002 (10pp) (2016)
- 110.** *Plasma micro-nanotextured polymeric micromixer for DNA purification with high efficiency and dynamic range*
A.S. Kastania, K. Tsougeni, G. Papadakis, E. Gizeli, G. Kokkoris, A. Tserepi, E. Gogolides,
Analytica Chimica Acta, **26**, pp 58-67 (2016)
- 109.** *Nanostructured PMMA-coated Love wave device as a platform for protein adsorption*
M. Gianneli, K. Tsougeni, A. Tserepi, E. Gogolides, and E. Gizeli
Sensors and Actuators B: Chem. **236**, pp 583-590 (2016)
- 108.** *Three-dimensional plasma micro–nanotextured cyclo-olefin-polymer surfaces for biomolecule immobilization and environmentally stable superhydrophobic and superoleophobic behavior*
K. Ellinas, K. Tsougeni, P. S. Petrou, G. Boulousis, D. Tsoukleris, E. Pavlatou, A. Tserepi, S. E. Kakabakos, E. Gogolides
Chem. Engineering Journal **300**, pp 394-403 (2016)
- 107.** *Miniaturized devices for isothermal DNA amplification addressing DNA diagnostics*
G. D. Kaprou, G. Papadakis, D. P. Papageorgiou, G. Kokkoris, V. Papadopoulos, I. Kefala, E. Gizeli, A. Tserepi
Microsyst. Technol. **22(7)**, pp 1529–1534 (2016)
- 106.** *Plasma nanotextured polymeric lab-on-a-chip for highly efficient bacteria capture and lysis*
K. Tsougeni, G. Papadakis, M. Gianneli, A. Grammoustianou, V. Constantoudis, B. Dupuy, P. N. Petrou, S. E. Kakabakos, A. Tserepi, E. Gizeli and E. Gogolides
Lab-Chip **16**, pp 120-131 (2016)

- 105.** [Plasma Nanotextured Polymeric Surfaces for Controlling Cell Attachment and Proliferation: A Short Review](#)
A. Tserepi, E. Gogolides, A. Bourkoula, A. Kanioura, G. Kokkoris, P. S. Petrou, S. E. Kakabakos
Plasma Chem. Plasma Process. 36: pp 107-120 (2016)
- 104.** *Nanoscale Mechanical and Tribological Properties of Plasma Nanotextured COP Surfaces with hydrophobic Coatings*
D. Dragatogiannis, E. Koumoulos, K. Ellinas, A. Tserepi, E. Gogolides
Plasma Proc. Polym. 12(11), pp 1271–1283 (2015)
- 103.** *Comparison of continuous-flow and static-chamber μ PCR devices through a computational study: the potential of flexible polymeric substrates*
Vasileios E. Papadopoulos, George Kokkoris, Ioanna N. Kefala, Angeliki Tserepi
Microfluid Nanofluid 19, pp 867-882 (2015)
- 102.** *Direct Covalent Biomolecule Immobilization on Plasma-Nanotextured Chemically Stable Substrates*
K. Tsougeni, P. S. Petrou, K. Awsiuk, M. M. Marzec, N. Ioannidis, V. Petrouleas, A. Tserepi, S. E. Kakabakos, and E. Gogolides
ACS Appl. Mater. Interfaces 7(27), pp 14670–14681 (2015)
- 101.** *A labyrinth split and merge micromixer for bioanalytical applications*
Ioanna N. Kefala, Vasileios E. Papadopoulos, Georgia Kaprou, George Kokkoris, George Papadakis, Angeliki Tserepi
Microfluid Nanofluid 19, pp 1047-1059 (2015)
- 100.** *Superamphiphobic Polymeric Surfaces Sustaining Ultrahigh Impact Pressures of Aqueous High- and Low-Surface-Tension Mixtures, Tested with Laser-Induced Forward Transfer of Drops*
K. Ellinas, M. Chatzipetrou, I. Zergioti, A. Tserepi, E. Gogolides
Advanced Materials 27(13), pp 2231–2235 (2015)
- 99.** [Hierarchical micro and nano structured, hydrophilic, superhydrophobic and superoleophobic surfaces incorporated in microfluidics, microarrays and lab on chip microsystems \(review\)](#)
Evangelos Gogolides, Kosmas Ellinas, Angeliki Tserepi
Microelectronic Engineering 132, pp 135-155 (2015)
- 98.** *Biomimetic, antireflective, superhydrophobic and oleophobic PMMA and PMMA-coated glass surfaces fabricated by plasma processing*
D. Kontziampasis, G. Boulousis, A. Smyrnakis, K. Ellinas, A. Tserepi, E. Gogolides
Microelectronic Engineering 121, pp 33-38 (2014)
- 97.** *Influence of Fluorine Plasma Treatment of TiO₂ Films on the Behavior of Dye Solar Cells Employing the Co(II)/(III) Redox Couple*
M. Konstantakou, Th. Stergiopoulos, V. Likodimos, G. C. Vougioukalakis, L. Sygellou, A. G. Kontos, A. Tserepi, and P. Falaras
Journal of Physical Chemistry C (2014)
- 96.** *Photolithography and plasma processing of polymeric lab on chip for wetting and fouling control and cell patterning*

- K. Tsougeni, A. Bourkoula, P. Petrou, A. Tserepi, S.E. Kakabakos, E. Gogolides
Microelectronic Engineering 124, 47-52 (2014)
- 95.** *A passive micromixer for enzymatic digestion of DNA*
V.E. Papadopoulos , I.N. Kefala , G. Kaprou , G. Kokkoris , D. Moschou, G. Papadakis , E. Gizeli, A. Tserepi
Microelectronic Engineering 124, 42-46 (2014)
- 94.** *All-plastic, low-power, disposable, continuous-flow PCR chip with integrated microheaters for rapid DNA amplification*
D. Moschou, N. Vourdas, G. Kokkoris, G. Papadakis, J. Parthenios, S. Chatzandroulis, and A. Tserepi
Sensors & Actuators B: Chem. 199, pp 470-478 (2014)
- 93.** *Plasma Micro-Nanotextured, Scratch, Water and Hexadecane Resistant, Superhydrophobic, and Superamphiphobic Polymeric Surfaces with Perfluorinated Monolayers*
K. Ellinas, S. P. Pujari, D. A. Dragatogiannis, C. A. Charitidis, A. Tserepi, H. Zuilhof, and E. Gogolides
Applied Materials and Interfaces 6(9), pp 6510–6524 (2014)
- 92.** *Superhydrophobic, passive microvalves with controllable opening threshold: exploiting plasma nanotextured microfluidics for a programmable flow switchboard*
Kosmas Ellinas, Angeliki Tserepi and Evangelos Gogolides
Microfluidics & Nanofluidics 17, pp 489 (2014)
- 91.** *Plasma-Assisted Nanoscale Protein Patterning on Si Substrates via Colloidal Lithography*
A. Malainou, K. Tsougeni, K. Ellinas, P. S. Petrou, V. Constantoudis, E. Sarantopoulou, K. Awsiuk, A. Bernasik, A. Budkowski, A. Markou, I. Panagiotopoulos, S. E. Kakabakos, E. Gogolides, and A. Tserepi
Journal of Physical Chemistry A 117, pp 13743-13751 (2013)
- 90.** *Phosphopeptide enrichment and separation in an affinity microcolumn on a silicon microchip: Comparison of sputtered and wet-deposited TiO₂ stationary-phase*
K. Ellinas, K. Tsougeni, G. Boulousis, Th. Speliotis, A. Tserepi, E. Gogolides
Sensors & Actuators B 188, pp 1073-1079 (2013)
- 89.** *Reversible pressure-induced switching of droplet mobility after impingement on porous surface media*
N. Vourdas, A. Tserepi, and V. N. Stathopoulos
Appl. Phys. Lett. 103, pp 111602 (2013)
- 88.** *Magnetization reversal in triangular L10-FePt nanoislands*
A. Markou, K.G. Beltsios, L.N. Gergidis, I. Panagiotopoulos, T. Bakas, K. Ellinas, A. Tserepi, L. Stoleriu, R. Tanasa, A. Stancu
J. Magnetism and Magnetic Materials 344, pp 224-229 (2013)
- 87.** *Superhydrophobic, Hierarchical, Plasma-Nanotextured Polymeric Microchannels Sustaining High Pressure Flows*
Dimitris Papageorgiou, Katerina Tspugeni, Angeliki Tserepi, Evangelos Gogolides
Microfluidics and Nanofluidics 344, pp 224-229 (2013)

- 86.** *Plasma etching of poly(dimethylsiloxane): roughness formation, mechanism, control, and application in the fabrication of microfluidic structures*
 Maria-Elena Vlachopoulou, George Kokkoris, Christophe Cardinaud, Evangelos Gogolides, and Angeliki Tserepi
Plasma Processes and Polymers 10, pp 29-40 (2013)
- 85.** *Nanomechanical and nanotribological properties of plasma nanotextured superhydrophilic and superhydrophobic polymeric surfaces*
 A. Skarmoutsou, C.A. Charitidis, A. K. Gnanappa, A. Tserepi, E. Gogolides
Nanotechnology 23, 505711 (11pp) (2012)
- 84.** *High Capacity and High Intensity DNA Microarray Spots Using Oxygen-Plasma Nanotextured Polystyrene Slides*
 K. Tsougeni, P. S. Petrou, A. Tserepi, S. E. Kakabakos, E. Gogolides
Anal. Bioanal. Chem. 403, pp 2757-2764 (2012)
- 83.** *Creating highly dense and uniform protein and DNA microarrays through Photolithography and Plasma Modification of Glass Substrates*
 A. Malainou, P. S. Petrou, S. E. Kakabakos, E. Gogolides, and A. Tserepi
Biosensors & Bioelectronics 34(1), pp 273-281 (2012)
- 82.** *Hierarchical, plasma nanotextured, robust superamphiphobic polymeric surfaces structurally stabilized through a wetting-drying cycle*
 A.K. Gnanappa, D. Papageorgiou, E. Gogolides, A. Tserepi, A. Papathanasiou, A. Boudouvis
Plasma Processes & Polymers 9, pp 304-315 (2012)
- 81.** *Superior performance of multilayered fluoropolymer films in low voltage electrowetting*
 D. Papageorgiou, A. Tserepi, A. Boudouvis, A. Papathanasiou
J. Colloid Interface Science 368, pp 592-598 (2012)
- 80.** *Controlled protein adsorption on microfluidic channels with engineered roughness and wettability*
 K.Tsougeni, P. Petrou, D. Papageorgiou, S. Kakabakos, A. Tserepi, E. Gogolides
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- 79.** *Polymeric Micro-fabricated TiO₂-ZrO₂ Affinity Chromatography Microchip for Phosphopeptide Enrichment and Separation*
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