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Dr Angeliki Tserepi received the B.Sc. Degree in Physics from the National and Kapodistrian University of Athens, Greece, in 1985, and the M.Sc. and Ph.D. degrees from the Ohio State University, USA, in 1989 and 1994, respectively. She held a Post-Doctoral ("Marie Curie") European Fellowship at the University Joseph Fourier of Grenoble, France (1994-1996), and at the Institute of Microelectronics (IMEL)-NCSR "Demokritos", Greece (Return Grant, TMR, 1996-1997). Since 1997, she is with IMEL working on plasma processing of materials for applications in micro- nano(bio)technology and microsystem fabrication. Since Jan. 2013, she is Director of Research at IMEL. Her current interests include design and fabrication of microfluidic devices, biomolecule microarrays, and LOC devices, control of wettability and biomolecule immobilization capacity of surfaces, as well as mechanisms for liquid transport in the microscale. She was/is coordinator of several national research projects (GSRT) and key researcher in European projects. She was chair for SPIE Microtechnologies "BioMEMS and Medical Microdevices" Conference (2013), co-chair for MNE (2008), in the organizing committees of Eurosensors (2011), and Micro & Nano (MMN2007), and technical program committee member of MNE and μ TAS conferences. She is reviewer in more than 20 journals, the author/co-author of 7 patents, of more than 90 publications (h-index=27) in international peer-reviewed journals, and one of the guest editors of MNE2008 and SPIE Microtechnologies 2013 Proceedings.

EDUCATION

- Ph.D. Chemical Physics Program, The Ohio State University, USA (1994)
- M.Sc. Physics Department, The Ohio State University, USA (1989)
- Physics Department, University of Athens (B.Sc. 1985)

PROFESSIONAL EXPERIENCE

- **Jan. 2013- today:** Director of Research, Dept. of Microelectronics, Institute of Advanced Materials, Physicochemical Processes, Nanotechnology and Microsystems, NCSR-"Demokritos"
- **Mar. 2007- Dec. 2012:** Senior Researcher, Institute of Microelectronics, NCSR-"Demokritos"
- **July 2003-Feb. 2007:** Associate Researcher, Institute of Microelectronics- NCSR "Demokritos"
- **Jan. 1998- June 2003:** Research Associate, Institute of Microelectronics- NCSR "Demokritos"
- **Sept. 1996- Aug. 1997:** Post-doctoral Fellow, "Marie Curie", Training and Mobility of Researchers, Institute of Microelectronics-NCSR"Demokritos"
- **June 1994-Mar. 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, Chemical Physics Program, Department of Chemistry, The Ohio State University, USA
- **Sept. 1985-Jan. 1989:** Graduate Teaching Associate, Department of Physics, The Ohio State University, USA

SELECTED PUBLICATIONS

- **"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, 13743-13751 (2013)
- **"Superhydrophobic, Hierarchical, Plasma-Nanotextured Polymeric Microchannels Sustaining High Pressure Flows"**, Dimitris Papageorgiou, Katerina Tspugeni, Angeliki Tserepi, Evangelos Gogolides, *Microfluidics and Nanofluidics* 344, 224-229 (2013)
- **"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, 29-40 (2013)
- **"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, 2757-2764 (2012)
- **"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), 273-281 (2012)
- **"Controlled protein adsorption on microfluidic channels with engineered roughness and wettability"**, K. Tsougeni, P. Petrou, D. Papageorgiou, S. Kakabakos, A. Tserepi, E. Gogolides, *Sensors & Actuators: B. Chemical* 161(1), 216-222 (2012)
- **"From superamphiphobic to amphiphilic polymeric surfaces with ordered hierarchical roughness fabricated with colloidal lithography and plasma nanotexturing"**, K. Ellinas, A. Tserepi, E. Gogolides, *Langmuir* 27 pp. 3960-3969 (2011)
- **"Protein arrays on high-surface area plasma-nanotextured poly(dimethylsiloxane)-coated glass slides"**, M.E. Vlachopoulou, A. Tserepi, P.S. Petrou, E. Gogolides, S.E. Kakambakos, *Colloids and Surfaces B: Biointerfaces* 83 pp. 270-276 (2011)
- **"Smart multifunctional Polymeric, Microfluidics Fabricated by Plasma Processing: Applications in Capillary Filling, and Passive Superhydrophobic Valving"**, K. Tsougeni, D. Papageorgiou, A. Tserepi and E. Gogolides, *Lab Chip* 10, 462-469 (2010)

- **"Micro and Nano Structuring and texturing of polymers using plasma processes: potential manufacturing applications"**, E. Gogolides, M.E. Vlachopoulou, K. Tsougeni, N. Vourdas, and A. Tserepi, *Int. J. Nanomanufacturing Vol. 6(1-4)*, 152-163 (2010)
- **"Plasma Nanotextured PMMA surfaces for protein arrays: Increased protein binding and enhanced detection sensitivity"**, K. Tsougeni, A. Tserepi, V. Constantoudis, E. Gogolides, P.S. Petrou, S.E. Kakabakos, *Langmuir 26(17)*, 13883-13891 (2010)
- **"Stable superhydrophobic surfaces induced by dual-scale topography on SU-8"**, J. Marquez-Velasco, M. Vlachopoulou, A. Tserepi, E. Gogolides, *Microelectron. Eng. 87 (5-8)*, 782-785 (2010)
- **"Mechanisms of Oxygen Plasma Nanotexturing of Organic Polymer Surfaces: From stable Superhydrophilic to Superhydrophobic Surfaces"**, K. Tsougeni, N. Vourdas, A. Tserepi, E. Gogolides, C. Cardinaud, *Langmuir 25(19)*, 11748-11759 (2009)
- **"High density protein patterning through selective plasma-induced fluorocarbon deposition on Si substrates"**, P. Bayiati, A. Malainou, E. Matrozos, A. Tserepi, P.S. Petrou, S.E. Kakambakos, E. Gogolides, *Biosensors & Bioelectronics 24*, 2979-2984 (2009)
- **"A low temperature surface modification assisted method for bonding plastic substrates M.E. Vlachopoulou"**, A. Tserepi, P. Pavli, P. Argitis, M. Sanopoulou, and K. Misiakos, *J. Micromech. Microeng. 19 015007 (6pp)* (2009)
- **"Fabrication of a micro-column for gas separation using poly(dimethylsiloxane) as structural and functional material"**, A Malainou, M E Vlachopoulou, R Triantafyllopoulou, A Tserepi and S Chatzandroulis, *J. Micromech. Microeng. 18, 105007* (2008)
- **"Integration of Microfluidics With a Love Wave Sensor for the Fabrication of a Multi-Sample Analytical Microdevice"**, K. Mitsakakis, A. Tserepi, E. Gizeli, *J. MicroElectroMechanical Systems 17 (4)*, pp. 1010-1019 (2008)
- **"Electrowetting on plasma deposited fluorocarbon hydrophobic films for bio-fluid transport in microfluidics"**, P. Bayiati, A. Tserepi, P. S. Petrou, K. Misiakos, S. E. Kakabakos, E. Gogolides, *J. Applied Physics 101, 103306* (2007)
- **"Nanotextured superhydrophobic transparent poly(methyl methacrylate) surfaces using high density plasma processing"** N. Vourdas, A. Tserepi, E. Gogolides, *Nanotechnology 18 125304(7pp)* (2007)
- **"Nanotexturing of poly(dimethylsiloxane) in plasmas for creating robust super-hydrophobic surfaces"**, A. Tserepi, M-E. Vlachopoulou, E. Gogolides, *Nanotechnology 17(15)*, 3977-3983 (2006).

BOOK EDITING

- *Proceedings of SPIE Vol. 8765, "Bio-MEMS and Medical Microdevices"*, edited by Angeliki Tserepi, Manuel Delgado-Restituto, Eleni Makarona, 876501 · © 2013 SPIE

- *Proceedings of the 34th International Conference on Micro and Nanofabrication*, edited by E. Gogolides, I. Raptis, P. Normand, A. Tserepi, Elsevier 2009