First name FAMILY NAME: Evangelos GOGOLIDES
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- **Short CV:** Dr Evangelos Gogolides is a Chemical Engineer from NTUA-Greece, and holds an MSc and a PhD (1990) both from MIT-USA. His thesis work was on plasma processing and simulation, and he did post-doctoral research on microlithography with Michael Hatzakis. He is presently research director at NCSR "Demokritos". He authored more than 290 publications (h-index 52 google scholar, 8600 citations, 365 documents, h-index-45 scopus-6820 citations, 294 documents) and 14 patent families, and coordinated several research projects on Nanofabrication and Microfluidics. He has founded the plasma nanotechnology laboratory at NCSR Demokritos. Dr Gogolides is a co-founder of two spin-off companies: Nanoplasmas pc and Nanometrisis pc. His current interests include microfabrication, Vacuum and atmospheric Pressure Plasma (Nano)technology, Surface engineering and wetting control for metals, polymers, and membranes, Water cleaning and Harvesting via superhydrophobic surfaces, Water cleaning, microfluidics and Lab on Chip, nanometrology and plasma simulation. He is a board member of the iMNESociety, President of the Hellenic Micro&NanoSociety, chair of several large international conferences (MNE 1997, MNE 2008, MNE 2019, i-plasmanano 2016 etc) and editor in chief of Microelectronic Engineering (MEE 2011-2021), and Micro and Nano Engineering (MNE 2021-on) Journals of Elsevier. He has been debuty director of IMEL(2005-6), member of its advisory board (2004-7), member of the NCSR Research Committee (2012-on), ERC Consolidator grant Panel member, and coordinator or PI of several research projects (EU and industry funded with a total research income of more than 12MEuro during the past 20 years). Video describing the research activities: English: https://www.youtube.com/watch?v=MD29cU4hhHU Greek: https://www.youtube.com/watch?v=1lkywk14L80&feature=youtu.be

Recent Funding ID, i.e. on-going grants and recently approved grants: On-going Grants:

Project Title	*Funding source*	*Amount (Euros)*	*Period*	*Role of the PI*	*Comments*
Harmonic	EUROPEAN COMMISSION, FET project	762.900,00	01/10/2018 - 30/02/2022	PI	Superhydrophobicity is studied for efficient drop-wise condensation and applications.
Novish	General Secretariat of Research and Technology	165.812,02	12/04/2019 - 11/04/2022	PI	Atmospheric plasma activated water is used to reduce microbial load and extend shelf-life of fish.
Nano4CSP	Solar Era Net	250.000	1/1/2020-31/12/2022	Co-PI	PI is Dr Giannakopoulos. We apply superhydrophobic transparent coatings on solar concentration mirrors.

Recently approved grants:

PlasmaForNano	ELIDEK (Excellence Grant)	1.499.400,00	4/2021-4/2024	PI	Joined proposal by Clean Room Users / Researchers, led by the PI for Atomic Layer Etching Infrastructure, and metal deposition infrastructure.
Carbyne	ERANET-RU	200.000	6/2021-6/2023	PI	Evaluate novel Cabyne (new allotropic carbon) films as sensors and biosensors
VortexLC	Pathfinder-EIC	555.000	3/2022-2/2025	PI	Functional plasma nanotextured microfluidics for diabetes screening

Recently Completed Grants:

LoveFood2Market	EUROPEAN COMMISSION	1.006.952,99	01/02/2016 - 30/04/2019	PI	A portable lab on a chip for foodborn pathogen detection
LoveFood	EUROPEAN COMMISSION	662.216,20	01/09/2012 - 29/02/2016	Co-PI	A sensor and modules for foodborn pathogen detection

Plasma Nanofactory	General Secretariat of Research and Technology	291.444,64	26/09/2012 - 31/10/2015	PI	Developing a new plasma technology for micro-nanotexturing polymeric surfaces, and exploiting applications (Aristeia-Excellence Project)

REPRESENTATIVE PUBLICATIONS

How Different Are Fog Collection and Dew Water Harvesting on Surfaces with Different Wetting Behaviors? Nioras, D., Ellinas, K., Constantoudis, V., Gogolides, E., *ACS Applied Materials and Interfaces* **13** (40), pp. 48322-48332 (2021)

Motion of Drops with Different Viscosities on Micro-Nanotextured Surfaces ……, P. Sarkiris, K. Ellinas, D. Gkiolas, D. Mathioulakis, E. Gogolides, *Advanced Functional Materials*, 29 (35), art. no. 1902905 (2019) (IF 8.758)

Is There a Threshold in the Antibacterial Action of Superhydrophobic Surfaces? K. Ellinas, D. Kefallinou, K. Stamatakis, E. Gogolides, A. Tserepi, *Applied Materials and Interfaces*, 9 (45), pp. 39781-39789 (2017) (IF 8.758)

Durable superhydrophobic and superamphiphobic polymeric surfaces and their applications: **A review**, K.Ellinas, A.Tserepi, E.Gogolides, *Adv. Surf. Interf. Sci.* 250, 133-157 (2017) (IF 9.992)

Superamphiphobic Polymeric Surfaces Sustaining Ultrahigh Impact Pressures……, K. Ellinas, M. Chatzipetrou, I. Zergioti, A. Tserepi, E. Gogolides, *Advanced Materials* 27 (13), 2231-2235 (2015) (IF 27.398)

Mechanisms of oxygen plasma nanotexturing of organic polymer surfaces:….., K. Tsougeni, N. Vourdas, A. Tserepi, E. Gogolides, C. Cardinaud, *Langmuir* 25 (19), 11748-11759 (2009) (IF 3.557)

Homer meets nano: Shrinking 2700 year old Greek poetry with state-of-the-art nanotechnology, E. Gogolides, *Micro and Nano Engineering*, 8, art. no. 100061 (2020) (new journal)

Hierarchical micro and nano structured, ……surfaces incorporated in microfluidics……., E. Gogolides, K. Ellinas, A. Tserepi, *Microelectronic Engineering* 132, 135-155 (2015) (IF 2.305) (**Review Paper**)

SELECTED PATENT FAMILIES

Gaseous Plasma nanotextured substrates for selective enrichment of cancer cells, GR 1009056, EPO 2918675

Method to fabricate chemically-stable plasma-etched substrates for direct covalent biomolecule immobilization, GR 1009057, EPO. Application Number: 15386014.3

Large Area, Uniform, Atmospheric Pressure Plasma Processing Device, GR1009432, EPO Appl: 16386016.6

Variable Faraday shield for a substrate holder, a clamping ring, or an electrode, or their combination in a plasma reactor, GR1009426, EP Appl: 17386017.2

PROFILE OF LEADING RESEARCH EXPEDITIONS

Dr Gogolides has been **working on fabrication of smart, and multifunctional surfaces, their incorporation in Microsystems for life sciences** (collaboration with researchers in NCSRD Dr A. Tserepi, Dr S. Kakabakos, Dr P. Petrou and Dr D. Mastellos), **and their nanometrological characterization** (collaboration with Dr V. Constantoudis). Dr Gogolides **has pioneered the discovery, understanding, control, and application of "plasma nanotexturing" technology** for the production of surfaces with controlled roughness and wetting characteristics. This technology can lead to protein, DNA, biomolecule, bacteria, and cell capturing surfaces. With one extra plasma step it can lead to self-cleaning, antifouling, anti-icing, antimicrobial surfaces and membranes. Dr Gogolides is **a leader of Plasma Nanoscience and Nanotechnology**. His **recent efforts are aiming in using such surfaces and membranes also for water harvesting, membrane distillation, energy savings, food analysis and safety**. He has **founded the plasma nanotechnology laboratory, and co-founded the microfluidics laboratory** in NCSRD.

MAJOR CONTRIBUTIONS TO THE EARLY CAREERS OF EXCELLENT RESEARCHERS

Dr Gogolides was **lucky to attract excellent young researchers as PhD students and post-doctoral fellows both from Greece and abroad**. Their education was important for finding jobs. Examples include, but are not limited to: E Tegou (presently with National Chemical Analysis Laboratories; Vijaya K. M. Kuppuswamy, presently professor in India; Arun K Gnanappa, presently in Infineon in Germany; N Skoro, presently in Institute of Physics, Belgrade; A Smyrnakis presently with Fasmatech Company; K Tsougeni presently with Nanoplasmas Company, K Ellinas presently with Aegean University and Nanoplasmas Company, D Kontziampasis, Leeds Univ. UK

EXAMPLES OF LEADERSHIP IN INDUSTRIAL INNOVATION & TECHNOLOGY TRANSFER

Dr Gogolides has not only been **striving for excellent research, a top priority target** in an ever changing national and international environment, but **also for finding ways to channel this excellent research back to society and industry**. This task was a **priority for the suffering national economy and as an antidote to brain drain**. Following the "Greece Innovates" award in 2013, Dr Gogolides together with senior group members, PhD students and Post Docs from the group joined a year-long training course on entrepreneurship, in the premises of the Hellenic Industry Association. This resulted in two business plans for exploiting research results of the group, namely "Technology for Smart Surfaces and smart diagnostics", and "Software for Nanometrology". **Two spin-off companies were created** in 2016 and are led by young post-doctoral fellows from the group: a) Nanoplasmas is working on bacteria and virus diagnostics. b) Nanometrisis commercializing software for Surface and Edge Roughness analysis.