

CONTACT INFORMATION

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EDUCATION

- **B.Sc. in Physics**, University of Athens, Physics Department, Greece, 1990
- **M.Sc. in Electronic Automation**, University of Athens, Physics Dept., Greece, 1993
- **Ph.D.**, University of Athens, Physics Dept. 1999 (on "Silicon Integrated Sensors")

CURRENT POSITION

2018 – pres. Researcher A
Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Greece

PREVIOUS POSITIONS

2013 – 2017. Researcher B
Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Greece

2008 – 2012 Researcher C
Institute of Microelectronics, NCSR "Demokritos", Greece

2005 – 2008 Research Fellow
Institute of Microelectronics, NCSR "Demokritos", Greece

2001 – 2005 Post Doctoral Fellow
Institute of Microelectronics, NCSR "Demokritos", Greece

1997 – 2001 Institute of Microelectronics, NCSR "Demokritos", Greece

1998 - 1998 Informatics Department, University of Athens, Greece

1996 – 1997 Military Service in Hellenic Army

1994 - 1996 Institute of Microelectronics, NCSR "Demokritos", Greece

1991 - 1993 Informatics Department, University of Athens, Greece

PROFESSIONAL MEMBERSHIPS

- Associate Member of the Institute of Electron and Electronic Engineers (IEEE), member of the Solid State Circuits Society and Life-member of Electron Device Society
- Member of the Material Research Society

RESEARCH INTERESTS

- Micro- Nano- Bio- Systems (biosensors, Lab-on-Chip, uTAS, wearables)
- Micromechanical Sensors and Systems (mechanical, chemical, bio)
- Sensor Electronic Interfaces
- RF passive sensor tags

BOOK CHAPTERS

- D.Tsoukalas, S.Chatzandroulis, D.Goustouridis, "CAPACITIVE SENSORS", invited article in Wiley Encyclopedia of Medical Devices and Instrumentation, Second Edition (2006), vol. 2, pp. 1-12.
- S. Chatzandroulis, V. Tsouti, I. Raptis, D. Goustouridis, "CAPACITANCE-TYPE CHEMICAL SENSORS" chapter at "Chemical Sensors: Comprehensive Sensor Technology, Vol. 4: Solid State Sensors", Print ISBN: 978-1-60650-233-4, Momentum Press, 2011.

SELECTED PUBLICATIONS

Dr. Chatzandroulis has authored or co-authored more than 90 papers in refereed journals and conference proceedings. He holds 1 issued U.S. patent and 4 Greek patents. Some selected publications follow:

- G.Spyridonos, M.Filippidou, G.D.Kaprou, D.C.Mastellos, S.Chatzandroulis, A.Tserepi, "Isothermal recombinase polymerase amplification (RPA) of E. coli gDNA in commercially fabricated PCB-based microfluidic platforms", (2021) *Micromachines*, 12 (11), art. no. 1387
- V. Tsouti, A.I. Kanaris, K. Tsoutis, S. Chatzandroulis, "Development of an automated system for obstructive sleep apnea treatment based on machine learning and breath effort monitoring", *Microelectronic Engineering*, Volume 231, 2020,111376
- M.K. Filippidou, M. Chatzichristidi, S. Chatzandroulis, "A fabrication process of flexible IDE capacitive chemical sensors using a two step lift-off method based on PVA patterning, *Sensors and Actuators B: Chemical*, Volume 284, 2019, Pages 7-12, ISSN 0925-4005
- Filippidou, M.K., Loukas, C.M., Kaprou, G., Tegou, E., Petrou, P., Kakabakos, S., Tserepi, A., Chatzandroulis, S., "Detection of BRCA1 gene on partially reduced graphene oxide biosensors", (2019) *Microelectronic Engineering*, 216, art. no. 111093.
- E.Tegou, G.Pseiropoulos, M.K.Filippidou, S.Chatzandroulis, "Low-temperature thermal reduction of graphene oxide films in ambient atmosphere: Infra-red spectroscopic studies and gas sensing applications", *Microelectronic Engineering*, 159, pp. 146-150 (2016)
- G. Tsekenis, M.K. Filippidou, M. Chatzipetrou, V. Tsouti, I. Zergioti, S.Chatzandroulis, "Heavy metal ion detection using a capacitive micromechanical biosensor array for environmental monitoring", *Sens. Act. B: Chemical*,vol. 208, pp. 628-635 (2015)
- D. Moschou, N.Vourdas, G.Kokkoris, G.Papadakis, J.Parthenios, S.Chatzandroulis, A.Tserepi, "All-plastic, low-power, disposable, continuous-flow PCR chip with integrated microheaters for rapid DNA amplification", *Sens. Act. B: Chemical*, 199, pp. 470-478. (2014)
- P.Broutas, H. Contopanagos¹, E. D. Kyriakis-Bitaros, D. Tsoukalas, S.Chatzandroulis, "A Low Power RF Harvester for a Smart Passive Sensor Tag with Integrated Antenna", *Sens. Act. A*, Vol. 176, pp. 34-45 (2012)
- E. D. Kyriakis-Bitaros, N. A. Stathopoulos, S. Pavlos, D. Goustouridis and S.Chatzandroulis, "A Reconfigurable, Multi-Channel Capacitive Sensor Array Interface", *IEEE Transactions on Instrumentation & Measurement*, vol. 60 (9), art. no. 5765495, pp. 3214-3221