

Christos Kokkinos



Associate Professor

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EDUCATION

Bachelor in Chemistry

Analytical Chemistry & Quality Control / National and Kapodistrian University of Athens (NKUA)

PhD in Analytical Chemistry/ NKUA / thesis Title: Fabrication and application of microsensors in chemical analysis

RESEARCH FIELDS

- Fabrication and application of biosensors, lab-on-a-chip και microfluidics.
- Application of 3D printing in electroanalysis .
- Biosensing based on labeling with μ e quantum dots and nanoparticles.

EDUCATIONAL EXPERIENCE

UNDERGRADUATE COURSES

- Analytical Chemistry (course/lab)/ Depts of Chemistry and Pharmacy /NKUA
- Modern analytical techniques / Dept of Chemistry/NKUA

GRADUATE COURSES

- Laboratory of Analytical Chemistry/ Dept of Chemistry NKUA/ Analytical Chemistry – Quality Control / Advance Analytical Chemistry/ Scientific Methodology

DISCRIMINATIONS / SCHOLARSHIPS

- National Scholarships Foundation (IKY) postdoctoral Scholarship (2017-2018)
- GSRT Action "Supporting Postdoctoral Researchers" (2012-2015)

RESEARCH GRANTS

- Support for researchers with emphasis on young researchers-cycle B" / Principal Investigator/ EU/ Budget 41.500€/ Duration 2020-2021
- Research-Create-innovate-cycle B / Principal Investigator / EU/ Budget 841.503 €/ Duration 2020-2023

REVIEWER OF SCIENTIFIC JOURNALS

ACS Nano, Analytical Chemistry, ACS Applied Materials & Interfaces, Analyst, Electrochimica Acta, Arabian Journal of Chemistry, Analytical Methods, Chemistry - A European Journal, Sensors and Actuators B, Bioelectrochemistry, Sensors, RSC Advances, Biosensors and Bioelectronics, Electroanalysis, Analytical Letters, Analytica Chimica Acta, Talanta, Current Analytical Chemistry, Biosensors, Molecules, Chemical Engineering Journal, ChemElectroChem, Journal of the Science of Food and Agriculture, Journal of Hazardous Materials,

EDITOR OF BOOKS AND SPECIAL VOLUMES

Analytical Chemistry, Daniel C. Harris, Charles Lucy, Broken Hill

PATENTS

- "3D-printed wearable electrochemical device for the direct determination of anagelsics and sedation drugs in beverages" Hellenic Industrial Property Organisation (OBI), 2022
- "Portable electrochemical device for the direct determination of authentication and adulteration of extra virgin olive oil" Hellenic Industrial Property Organisation (OBI), 2022

ADDITIONAL INFORMATION

- Presentations at conferences: **35**
- Supervision of doctoral theses: **3**
- Supervision of graduate students: **8**
- Supervision of undergraduate students: **11**
- PI in **2** Research Programs
- Collaboration/Participation in **6** Research Programs
- Reviewer in Research Programs **2**

SELECTED PUBLICATIONS (link OF PUBLICATIONS)

- 1) "Graphite paste sensor modified with a Cu(II)-complex for the enzyme-free simultaneous voltammetric determination of glucose and uric acid in sweat" F. Vasiliou, A. Plessas, A. Economou, N. Thomaidis, G. S. Papaefstathiou, C. Kokkinos*, Journal of Electroanalytical Chemistry, 917 (2022) 116393, <https://doi.org/10.1016/j.jelechem.2022.116393>
- 2) "Wearable Electronic Finger for Date Rape Drugs Screening: From "Do-It-Yourself" Fabrication to Self-Testing" G. Poulladofonou, Ch. Freris, A. Economou, C. Kokkinos*, Analytical Chemistry, 2022, 94, 9, 4087–4094 <https://doi.org/10.1021/acs.analchem.2c00015>
- 3) "3D Printed Bioelectronic Microwells" V. Katseli, M. Angelopoulou, C. Kokkinos*. Advanced Functional Materials, 2021, 2102459. <https://doi.org/10.1002/adfm.202102459>
- 4) "3D Printed Enzymatic Microchip for Multiplexed Electrochemical Biosensing", E. Koukouviti, C. Kokkinos*, Analytica Chimica Acta, 1186 (2021) 339114 <https://doi.org/10.1016/j.aca.2021.339114>
- 5) "Smartphone-Addressable 3D-Printed Electrochemical Ring for Nonenzymatic Self-Monitoring of Glucose in Human Sweat", V. Katseli, A. Economou, C. Kokkinos*, Analytical Chemistry, 2021, 93, 7, 3331–3336 <https://doi.org/10.1021/acs.analchem.0c05057>
- 6) "3D printed microcell featuring a disposable nanocomposite Sb/Sn immunosensor for quantum dot-based electrochemical determination of adulteration of ewe/goat's cheese with cow's milk", D. Livas, M. Trachioti, S. Banou, M. Angelopoulou, A. Economou, M. Prodromidis, P. Petrou, S. Kakabakos, C. Kokkinos*, Sensors and Actuators B, 334 (2021) 129614 <https://doi.org/10.1016/j.snb.2021.129614>
- 7) "3D-printed lab-in-a-syringe voltammetric cell based on a working electrode modified with a highly efficient Ca-MOF sorbent for the determination of Hg(II)" C. Kokkinos*, A. Economou, A. Pournara, M. Manos, I. Spanopoulos, M. Kanatzidis, T. Tziotzi, V. Petkov, A. Margariti, P. Oikonomopoulos, G. Papaefstathiou, Sensors and Actuators B, 321 (2020) 128508 <https://doi.org/10.1016/j.snb.2020.128508>
- 9) "Miniature 3D-printed integrated electrochemical cell for trace voltammetric Hg(II) determination" V. Katseli, N.

Thomaidis, A. Economou, C. Kokkinos*, Sensors and Actuators B,308 (2020) 127715
<https://doi.org/10.1016/j.snb.2020.127715>

10) "Electrochemical DNA Biosensors Based on Labeling with Nanoparticles" C. Kokkinos*, Nanomaterials, 2019, 9(10), 1361
<https://doi.org/10.3390/nano9101361>

11) "A Ca²⁺ MOF combining highly efficient sorption and capability for voltammetric determination of heavy metal ions in aqueous media", A. Pournara, A. Margariti, G. Tarlas, A. Kourtellaris, V. Petkov, C. Kokkinos, A. Economou, G. Papaefstathiou, M. Manos, Journal of Materials Chemistry A, 2019, 7, 15432–15443
<https://doi.org/10.1039/C9TA03337H>