CHRISTOS KOKKINOS

Assistant Professor in Analytical Chemistry (since 2018)

Education

2017-2018	Postdoctoral resercher at the Laboratory of Analytical Chemistry, Deptartment of Chemistry, University of Athens, under IKY Scholarship.
2012-2015	Postdoctoral resercher at the Laboratory of Analytical Chemistry, Deptartment of Chemistry, University of Ioannina, under GSRT Scholarship.
2010	Ph.D in Analytical Chemistry at the Department of Chemistry, University of Athens , Greece.
2006	M.Sc in Analytical Chemistry "Control of Quality - Chemical Analysis" at the Department of Chemistry, University of Athens Greece.
2003	B.Sc. in Chemistry, University of Thessaloniki, Greece.

Teaching Activities

Undergraduate courses

Analytical Chemistry (course/lab), Departments of Chemistry and Pharmacy

Postgraduate courses

Advance Analytical Chemistry, Department of Chemistry

Research Interest

- ***Electrochemical sensing and biosensing***

-Developement (design, fabrication, characterization) of electrochemical sensors and biosensors using microenginearing (sputtering, photolithography) and 3D-printing technologies, on various supports (silicon wafer, plastics, paper).

-Development of microfluidic devices for electrochemical sensing and biosensing.

-Develepoment of analytical protocols for the electrochemical detrmination of trace metals and for the quantitative determination of biomolecules (proteins, DNA) using nanoparticles labeling.
-Syntesis,characterization and modification of nanoparticcles (e.g. quantum dots).

Selected Publications

https://scholar.google.gr/citations?user=eCcfSJ0AAAAJ&hl=el

1) "Novel disposable bismuth-sputtered electrodes for the determination of trace metals by stripping voltammetry". C. Kokkinos, A. Economou, I. Raptis, T. Speliotis, C. E. Efstathiou. Electrochemistry Communications, 2007, 9, 2795-2800.

2) "Lithographically fabricated disposable bismuth-film electrodes for the trace determination of Pb(II) and Cd(II) by anodic stripping voltammetry". C. Kokkinos, A. Economou, I. Raptis, C. E. Efstathiou. Electrochimica Acta, 2008, 53, 5294-5299.

3) "Disposable mercury-free cell-on-a-chip devices with integrated microfabricated electrodes for the determination of trace nickel(II) by adsorptive stripping voltammetry". C. Kokkinos, A. Economou, I. Raptis, T. Speliotis. Analytica Chimica Acta, 2008, 622, 111-118.

4) "Stripping analysis at bismuth-based electrodes". C. Kokkinos, A. Economou. Current Analytical Chemistry, 2008, 4, 183-190.

5) "Determination of trace cobalt(II) by adsorptive stripping voltammetry on disposable microfabricated electrochemical cells with integrated planar metal-film electrodes". C. Kokkinos, A. Economou, M. Koupparis. Talanta, 2009, 77, 1137-1142.

6) "Novel disposable microfabricated antimony-film electrodes for adsorptive stripping analysis of trace Ni(II)". C. Kokkinos, A. Economou, I. Raptis, T. Speliotis. Electrochemistry Communications, 2009, 11, 250-253.

7) "Determination of trace Tl(I) by anodic stripping voltammetry on novel disposable micro-fabricated bismuth-film sensors". C. Kokkinos, I. Raptis, A.Economou, T. Speliotis. Electroanalysis, 2010, 22, 2359-2365.

8) "Disposable Nafion-modified micro-fabricated bismuth-film sensors for voltammetric stripping analysis of trace metals in the presence of surfactants". C. Kokkinos, A. Economou. Talanta, 2011, 84, 696-701.

9) "Disposable lithographically fabricated bismuth microelectrode arrays for stripping voltammetric detection of trace metals". C. Kokkinos, A. Economou, I. Raptis, T. Speliotis. Electrochemistry Communications, 2011, 13, 391-395.

10) "Microfabricated disposable lab-on-a-chip sensors with integrated bismuth microelectrode arrays for voltammetric determination of trace metals". C. Kokkinos, A. Economou, I. Raptis. Analytica Chimica Acta, 2012, 710, 1-8.

11) "Voltammetric determination of trace Tl(I) at disposable screen-printed electrodes modified with bismuth precursor compounds". N. Lezi, C. Kokkinos, A. Economou, M. I. Prodromidis. Sensors and Actuators B, 2013, 182, 718-724.

12) "Microfabricated tin−film electrodes for protein and DNA sensing based on stripping voltammetric detection of Cd(II) released from quantum dots labels". C. Kokkinos, A. Economou, P. Petrou, S. Kakabakos. Analytical Chemistry, 2013, 85, 10686-10691.

13) "Disposable microfabricated 3-electrode electrochemical devices with integrated antimony working electrode for stripping voltammetric determination of selected trace metals". C. Kokkinos, A. Economou. Sensors and Actuators B, 2014, 192 , 572-577.

14) "Tin-film mini-sensors fabricated by a thin-layer microelectronic approach for stripping voltammetric determination of trace metals". C. Kokkinos, A. Economou, T. Speliotis. Electrochemistry Communications, 2014, 38, 96-99.

15) "Tin film sensor with on-chip three-electrode configuration for voltammetric determination of trace Tl(I) in strong acidic media". C. Kokkinos, A. Economou. Talanta, 2014, 125, 215-220.

16) "Flexible microfabricated film sensors for the in situ quantum dot-based voltammetric detection of DNA hybridization in microwells". C. Kokkinos, A. Economou, T. Speliotis, P. Petrou, S. Kakabakos. Analytical Chemistry, 2015, 87, 853-857.

17) "Quantum dot-based electrochemical DNA biosensor using a screen-printed graphite surface with embedded bismuth precursor". C. Kokkinos, M. Prodromidis, A. Economou, P. Petrou, S. Kakabakos. Electrochemistry Communications, 2015, 60, 47-51.

18) "Disposable integrated bismuth citrate-modified screen-printed immunosensor for ultrasensitive quantum dot-based electrochemical assay of C-reactive protein in human serum". C. Kokkinos, M. Prodromidis, A. Economou, P. Petrou, S. Kakabakos. Analytica Chimica Acta, 2015, 886, 29-36.

19) "Electrochemical immunosensors: Critical survey of different architectures and transduction strategies". C. Kokkinos, A. Economou M. Prodromidis.
Trends in Analytical Chemistry, 2016, 79, 88-105.

20) "Microfabricated chip integrating a bismuth microelectrode array for the determination of trace cobalt(II) by adsorptive cathodic stripping voltammetry". C. Kokkinos, A. Economou.
Sensors and Actuators B, 2016, 229, 362-369.

21) "Determination of Pb(II) by sequential injection/stripping analysis at all-plastic electrochemical fluidic cells with integrated composite electrodes". C. Kokkinos, A. Economou, N. G. Goddard, P. R. Fielden, S. J. Baldock. Talanta, 2016, 153, 170-176.

22) "Lab-on-a-membrane foldable devices for duplex drop-volume electrochemical biosensing using quantum dot tags". C. Kokkinos, M. Angelopoulou, A. Economou, M. Prodromidis, A. Florou, W. Haasnoot, P. Petrou, S. Kakabakos. Analytical Chemistry, 2016, 88, 6897-6904.

23) "Emerging trends in biosensing using stripping voltammetric detection of metal-containing nanolabels - A review". C. Kokkinos, A. Economou. Analytica Chimica Acta, 2017, 961, 12-32.

24) "Paper-based microfluidic device with integrated sputtered electrodes for stripping voltammetric determination of DNA via quantum dot labeling" C. Kokkinos, D. Giokas, A. Economou, P. Petrou, S. Kakabakos. Analytical Chemistry, 2018, 90, 1092-1097

25) "Paper-based device with a sputtered tin-film electrode for the voltammetric determination of Cd(II) and Zn(II) " C. Kokkinos, A. Economou, D. Giokas, Sensors and Actuators B, 2018, 260, 223-226.

26) "Flexible plastic, paper and textile lab-on-a chip platforms for electrochemical biosensing" A. Economou ,C. Kokkinos, M. Prodromidis, Lab on Chip, 2018, 18, 1812-1830.

27) "Integrated on-chip sensor with sputtered Ag-Au-Au electrodes for the voltammetric determination of trace Hg(II)" E. Roditi, M. Tsetsoni, C. Kokkinos, A. Economou, Sensors and Actuators B, 2019, 286, 125-130.

28) "Lithographically-fabricated bismuth-film electrodes as disposable mercury-free voltammetric sensors for trace analysis of Pb(II) ". C. Kokkinos, A. Economou, I. Raptis, T. Speliotis, C. E. Efstathiou. Sensing in Electroanalysis, University of Pardubice, 2008, 3, 91-103.

29) "Advances in Stripping Analysis of Metals". A. Economou, C. Kokkinos. RSC Detection Science Series No. 6, Electrochemical Strategies in Detection Science, 2015, 1-18.

30) "Integrated electrochemical immunosensors". C. Kokkinos, A. Economou, 2018. In: Wandelt, K., (Ed.) Encyclopedia of Interfacial Chemistry: Surface Science and Electrochemistry, vol. 7, pp 261–268.

31) "Disposable micro-fabricated electrochemical bismuth sensors for the determination of Tl(I) by stripping voltammetry". C. Kokkinos, I. Raptis, A. Economou, T. Speliotis. Procedia Chemistry, 2009, 1, 1039-1042.

32) "Disposable microfabricated bismuth microelectrode arrays for trace metal analysis by stripping voltammetry".
C. Kokkinos, A. Economou, I. Raptis, T. Speliotis.
Procedia Engineering, 2011, 25, 880-883.

33) “Microfabricated Au-film sensors for the voltammetric determination of Hg(II) ” M. Tsetsoni, E. Roditi, C. Kokkinos, A. Economou, Proceedings mdpi 2018, 2, 1518; doi:10.3390/proceedings2131518,

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