

A) Articles:

Amal Rabti, Carmen C. Mayorga–Martinez, Luis Baptista–Pires, Noureddine Raouafi, Arben Merkoçi, *Ferrocene–functionalized graphene electrode for biosensing applications*, *Analytica Chimica Acta* 296, 28-35. 2016.

B. Heli, E. Morales-Narváez, H. Golmohammadi, A. Aji and A. Merkoçi, *Modulation of population density and size of silver nanoparticles embedded in bacterial cellulose via ammonia exposure: visual detection of volatile compounds in a piece of plasmonic nanopaper*, *Nanoscale* 8, 7984-7991. 2016.

Alejandro Zamora-Gálvez, Abdellatif Ait-Lahcen, Luiza A. Mercante, Eden Morales-Narváez, Aziz Amine, and Arben Merkoçi, *Molecularly Imprinted Polymer–decorated Magnetite Nanoparticles for Selective Sulfonamide Detection*, *Anal. Chem.* 88 (7), pp 3578–3584. 2016.

Jahir Orozco, Luiza Mercante, Roberto Pol and Arben Merkoçi, *Graphene-based Janus Micromotors for Dynamic Removal of Pollutants*, *J. Mater. Chem. A*, 4, 3371-3378. 2016.

Abdelmoneim Mars, Claudio Parolo, Alfredo de la Escosura-Muniz, Noureddine Raouafi and Arben Merkoçi, *Control of Electron-transfer in Immunonanosensors by Using Polyclonal and Monoclonal Antibodies*, *Electroanalysis*, 28, 1-9. 2016.

Alfredo de la Escosura-Muñiz, Luis Baptista-Pires, Lorena Serrano, Laura Altet, Olga Francino, Armand Sánchez and Arben Merkoçi, *Magnetic Bead/Gold Nanoparticle Double-Labeled Primers for Electrochemical Detection of Isothermal Amplified Leishmania DNA*, *Small* 12 (2), 205–213. 2016.

Alfredo de la Escosura-Muñiz and Arben Merkoçi, *Nanochannels for electrical biosensing*, *TrAC Trends in Analytical Chemistry* 79, 134-150. 2016.

Alejandro Chamorro-Garcia , Alfredo de la Escosura-Muñiz , Marisol Espinosa-Castañeda , Carlos J Rodriguez-Hernandez, Carmen de Torres and Arben Merkoçi, *Detection of parathyroid hormone-like hormone in cancer cell cultures by gold nanoparticles-based lateral flow immunoassays*, *Nanomedicine: Nanotechnology, Biology, and Medicine*, 12 (1), 53–61. 2016.

Mariana Medina-Sánchez, Sandrine Miserere, Miquell Cadevall and Arben Merkoçi, *Enhanced detection of quantum dots labelled protein by simultaneous bismuth electrodeposition into microfluidic channel* 37, 432-437. 2016.

Mariana Medina-Sánchez, Carmen C. Mayorga-Martinez, Takeshi Watanabe, Tribidasari A. Ivandini, Yuki Honda, Flavio Pino, Kazuya Nakata, Akira Fujishima, Yasuaki Einaga, Arben Merkoçi, *Microfluidic platform for environmental contaminants sensing and degradation based on boron-doped diamond electrodes*, *Biosensors and Bioelectronics*, 75, 365–374. 2016.

Luis Baptista-Pires, Carmen C. Mayorga-Martínez, Mariana Medina-Sánchez Helena Montón and Arben Merkoçi, *Water Activated Graphene Oxide Transfer Using Wax Printed Membranes for Fast Patterning of a Touch Sensitive Device*, *ACS Nano*. 10 (1), 853–860. 2016.

Prof. Arben Merkoçi Publications

Mariana Medina-Sánchez, Sandrine Miserere, Miquel Cadevall and Arben Merkoçi, *Enhanced detection of quantum dots labelled protein by simultaneous bismuth electrodeposition into microfluidic channel*, *Electrophoresis* 37, Issue 3, 432-437. 2015.

Lourdes Rivas, Alfredo de la Escosura Muñiz, Lorena Serrano, Laura Altet, Olga Francino, Armand Sánchez, Arben Merkoçi, *Triple lines gold nanoparticle-based lateral flow for enhanced and simultaneous Leishmania DNA detection and endogenous control*, *Nano Research* 8 (11), 3704-3714. 2015.

Eden Morales-Narvaez, Hamed Golmohammadi, Tina Naghdi, Hossein Yousefi, Uliana Kostiv, Daniel Horak, Nahid Pourreza, Arben Merkoçi, *Nanopaper as an Optical Sensing Platform*, *Acs Nano*, 9, 7, 7296-7305. 2015.

Andrzej Chałupniak, Eden Morales-Narvaez, Arben Merkoçi, *Micro and nanomotors in diagnostics*, *Advanced Drug Delivery Reviews*, 95, 104–116. 2015.

Alfredo M.Gravagnuolo, Eden Morales-Narvaez, C.R. Santos Matos, A. Longobardi, P. Siardina, Arben Merkoçi, *On-the-Spot Immobilization of Quantum Dots, Graphene Oxide, and Proteins via Hydrophobins*, *Advanced Functional Materials*, 25, 38, 6084 - 6092. 2015.

Alfredo M.Gravagnuolo, Eden Morales-Narvaez, Sara Longobardi, Everson T. da Silva, Paola Giardina, Arben Merkoçi, *In Situ Production of Biofunctionalized Few-Layer Defect-Free Microsheets of Graphene*, *Advanced Functional Materials*, 25, 18, 2771-2779. 2015.

Helena Monton, Claudio Parolo, Antonio Aranda-Ramos, Arben Merkoçi, Carme Nogues, *Annexin-V/quantum dot probes for multimodal apoptosis monitoring in living cells: improving bioanalysis using electrochemistry*, *Nanoscale*, 7, 9, 4097-4104. 2015.

Eden Morales-Narvaez, Tina Naghdi, Erhan Zor, and Arben Merkoçi, *Photoluminescent Lateral-Flow Immunoassay Revealed by Graphene Oxide: Highly Sensitive Paper-Based Pathogen Detection*. *Anal. Chem.*, 87, 8573-8577. 2015.

Lourdes Rivas, Carmen C. Mayorga-Martinez, Daniel Quesada-Gonzalez, Alejandro Zamora-Galvez, Alfredo de la Escosura-Muniz, Arben Merkoçi, *Label-Free Impedimetric Aptasensor for Ochratoxin-A Detection Using Iridium Oxide Nanoparticles*, *Analytical Chemistry*, 87, 10, 5167-5172. 2015.

Daniel Quesada-Gonzalez, Arben Merkoçi, *Nanoparticle-based lateral flow biosensors*, *Biosensors & Bioelectronics*, 73, 47-63. 2015.

Carmen Mayorga-Martinez, Alejandro Chamorro-Garcia, Lorena Serrano, Lourdes Rivas, Daniel Quesada-Gonzalez, Laura Altet, Olga Francino, Armand Sanchez, Arben Merkoçi, *An iridium oxide nanoparticle and polythionine thin film based platform for sensitive Leishmania DNA detection*, *Journal Of Materials Chemistry B*. 3, 26, 5166-5171. 2015.

Erhan Zor, Eden Morales-Narvaez, Alejandro Zamora-Galvez, H. Bingol, M. Ersoz, Arben Merkoçi, *Graphene Quantum Dots-based Photoluminescent Sensor: A Multifunctional Composite for Pesticide Detection*, *Acs Applied Materials & Interfaces*, 7, 36, 20272 - 20279. 2015.

Prof. Arben Merkoçi Publications

Mariana Medina-Sánchez, Miquel Cadevall, Josep Ros, Arben Merkoçi, *Eco-friendly electrochemical lab-on-paper for heavy metal detection*, Analytical and Bioanalytical Chemistry, 407, 8445-8449. 2015.

Miquel Cadevall, Josep Ros, Arben Merkoçi, *Bismuth nanoparticles integration into heavy metal electrochemical stripping sensor*, Electrophoresis, 36, 16, 1872-1879. 2015.

Flavio Pino, T.A. Ivandini, K. Naikata, A. Fujishima, Arben Merkoçi, Y. Einaga, *Magnetic Enzymatic Platform for Organophosphate Pesticide Detection Using Boron-doped Diamond Electrodes*, Analytical Sciences, 31, 10, 1061 - 1068. 2015.

Gisele Elias Nunes-Pauli, Alfredo de la Escosura-Muñiz, Claudio Parolo, Ivan H Bechtold and Arben Merkoçi. *Lab-in-a-syringe using gold nanoparticles for rapid immunosensing of protein biomarkers*. Lab Chip, 15, 399-405. 2015.

Marisol Espinoza-Castañeda, Alfredo de la Escosura-Muñiz, Alejandro Chamorro, Carmen de Torres, Arben Merkoçi. *Nanochannel array device operating through Prussian blue nanoparticles for sensitive label-free immunodetection of a Cancer biomarker*. Biosensors and Bioelectronics, 67, 107-114. 2015.

Alfredo de la Escosura-Muñiz, Marisol Espinoza-Castañeda, Madoka Hasegawa, Laetitia Philippe, Arben Merkoçi. *Nanoparticles-based nanochannels onto a plastic flexible substrate for label-free immunosensing*. Nano Research, 8(4): 1180–1188. 2015.

Abdel-Rahim Hussein Abdel-Azzem Hassan, Alfredo de la Escosura-Muñiz, Arben Merkoçi. *Highly Sensitive and Rapid Determination of Escherichia coli O157:H7 in Minced Beef and Water using Electrocatalytic Gold Nanoparticle Tags*. Biosensors & Bioelectronics, 67, 511-515. 2015.

Carmen C. Mayorga-Martinez , Alejandro Chamorro-García , Arben Merkoçi. *Electrochemical impedance spectroscopy (bio)sensing through hydrogen evolution reaction induced by gold nanoparticles*. Biosensors & Bioelectronics, 67, 53–58. 2015.

Sevinc Kurbanoglu, Carmen C. Mayorga-Martinez, Mariana Medina-Sánchez, Lourdes Rivas, Sibel A. Ozkan, Arben Merkoçi . *Antithyroid drug detection using an enzyme cascade blocking in a nanoparticle-based lab-on-a-chip system*. Biosensors & Bioelectronics, 67, 670–676. 2015.

Alfredo de la Escosura-Muñiz, Zdeněk Plichta, Daniel Horák, Arben Merkoçi. *Alzheimer's disease biomarkers detection in human samples by efficient capturing through porous magnetic microspheres and labelling with electrocatalytic gold nanoparticles*. Biosensors and Bioelectronics, 67, 162-169. 2015.

Lourdes Rivas, Alfredo de la Escosura-Muñiz, Josefina Pons and Arben Merkoçi. *Alzheimer Disease Biomarker Detection Through Electrocatalytic Water Oxidation Induced by Iridium Oxide Nanoparticles*. Electroanalysis, 26 (6), 1287–1294. 2014.

Mariana Medina-Sanchez, Carme Martínez-Domingo, Eloi Ramon, Arben Merkoçi. *An Inkjet-Printed Field-Effect Transistor for Label-Free Biosensing*. Advanced Functional Materials, 20 (40), 6291–6302. 2014.

Prof. Arben Merkoçi Publications

Carmen C. Mayorga-Martinez, Lenka Hlavata, Sandrine Miserere, Adaris López-Marzo, Jan Labuda, Josefina Pons, Arben Merkoçi. *An integrated phenol 'sensoremoval' microfluidic nanostructured platform*. Biosensors & Bioelectronics, 55, 355–359. 2014.

Arben Merkoçi. *Electroanalysis-Based Clinical Diagnostics*. Electroanalysis, 26 (6), 1110. 2014.

Luis Baptista-Pires, B. Pérez-López, Carmen C. Mayorga-Martinez, Eden Morales-Narváez, Neus Domingo, Maria Jose Esplandiú, Francesc Alzina, C.M. Sotomayor Torres, A. Merkoçi. *Electrocatalytic tune of biosensing response through electrostatic or hydrophobic enzyme – graphene oxide interactions*. Biosensors & Bioelectronics, 61, 655–662. 2014.

Adaris Lopez-Marzo, Josefina Pons and Arben Merkoçi. *Extremely fast and high Pb²⁺ removal capacity using a nanostructured hybrid material*. Journal of Materials Chemistry A, 2, 8766-8772. 2014.

Ali Fattah, Saeid Khatami, Carmen C. Mayorga-Martinez, Mariana Medina-Sánchez, Luis Baptista-Pires and Arben Merkoçi. *Graphene/Silicon Heterojunction Schottky Diode for Vapors Sensing Using Impedance Spectroscopy*. Small, 10 (20), 4193–4199. 2014.

Lourdes Rivas, Mariana Medina, Alfredo de la Escosura-Muñiz and Arben Merkoçi. *Improving sensitivity of gold nanoparticles-based lateral flow assays by using wax-printed pillars as delay barriers of microfluidics*. Lab on a Chip, 14, 4406-4414. 2014.

Carmen Mayorga, Flavio Pino, Sevinc Kurbanoglu, Lourdes Rivas, Sibel A Ozkan and Arben Merkoçi. *Iridium oxide nanoparticles induced dual catalytic/inhibition based detection of phenol and pesticide compounds*. Journal of Materials Chemistry B, 2, 2233-2239. 2014.

Eden Morales-Narváez, Maria Guix, Mariana Medina-Sánchez, Carmen C. Mayorga-Martinez, Arben Merkoçi. *Micromotor Enhanced Microarray Technology for Protein Detection*. Small, 10 (13), 2542–2548. 2014.

Maria Guix, Carmen C. Mayorga-Martinez and Arben Merkoçi. *Nano/Micromotors in (Bio)chemical Science Applications*. Chemical Reviews, 114 (12), 6285–6322. 2014.

Mariana Medina-Sánchez, Sandrine Miserere, Eden Morales-Narvaez, Arben Merkoçi. *On-chip magneto-immunoassay for Alzheimer's biomarker electrochemical detection by using Quantum Dots as labels*. Biosensors & Bioelectronics, 54, 279–284. 2014.

Everson T. S. G. da Silva , Sandrine Miserere , Lauro T. Kubota and Arben Merkoçi. *Simple on-plastic/paper inkjet-printed solid- state Ag/AgCl pseudo-reference electrode*. Analytical Chemistry, 86 (21), 10531–10534. 2014.

M. Palomar-Pardavé, S. Corona-Avenidaño, M. Romero-Romo, G. Alarcón-Angeles, A. Merkoçi, M.T. Ramírez-Silva. *Supramolecular Interaction of Dopamine with β -Cyclodextrin: An Experimental and Theoretical Electrochemical Study*. Journal of Electrochemical Chemistry, 717-718, 103-109. 2014.

Adaria María López Marzo; Josefina Pons; Diane A. Blake; Arben Merkoçi. *All-integrated and highly sensitive paper-based device with sample treatment platform for Cd²⁺ immunodetection in drinking/tap waters*. Analytical Chemistry. 85 - 7, pp. 3532 - 3538. 2013.

Prof. Arben Merkoçi Publications

Tiziana Placido; Roberto Comparelli; Marinella Striccoli; Angela Agostiano; Arben Merkoçi. *Assembly of Gold Nanorods for Highly Sensitive Detection of Mercury Ions*. IEEE Sensors Journal. 13 - 8, pp. 2834 - 2841. 2013.

Carmen C. Mayorga; Miquel Cadevall; Maria Guix; Josep Ros; Arben Merkoçi. *Bismuth nanoparticles for phenolic compounds biosensing application*. Biosensors and Bioelectronics. 40, pp. 57 - 62. 2013.

Marisol Espinoza; Alfredo de la Escosura; Gemma González; Susana M. Martín; José Francisco Pérez; Arben Merkoçi. *Casein modified gold nanoparticles for future theranostic applications*. Biosensors and Bioelectronics. 40, pp. 271 - 276. 2013.

Ruslán Álvarez Diduk; María Teresa Ramírez Silva; Annia Galano; Arben Merkoçi. *Deprotonation Mechanism and Acidity Constants in Aqueous Solution of Flavonols: a Combined Experimental and Theoretical Study*. J. Phys. Chem. B. 117 - 41, pp. 12347 - 12359. 2013.

Claudio Parolo; Alfredo de la Escosura Muñiz; Ester Polo; Valeria Grazu; Jesús M. De La Fuente; Arben Merkoçi. *Design, preparation and evaluation of a fixed-orientation antibody/gold nanoparticle conjugate as immunosensing label*. ACS Appl. Mater. Interfaces. 5 - 21, pp. 10753 - 10759. 2013.

André S. Afonso; Briza Pérez; Ronaldo C. Faria; Luiz H.C. Mattoso; Maria M.H. Herrero; Artur X.R. Sagués; Marisa Maltez; Arben Merkoçi. *Electrochemical Detection of Salmonella using Gold Nanoparticles*. Biosensors and Bioelectronics. 40, pp. 121 - 126. 2013.

Claudio Parolo; Alfredo de la Escosura; Arben Merkoçi. *Enhanced lateral flow immunoassay using gold nanoparticles loaded with enzymes*. Biosensors and Bioelectronics. 40, pp. 412 - 416. 2013.

Abdelmoneim Mars; Claudio Parolo; Nouredine Raouafi; Khaled Boujlel; Arben Merkoçi. *Gold nanoparticles decorated with a ferrocene derivative as a potential shift-based transducing system of interest for sensitive immunosensing*. J. Mater. Chem. B. 1, pp. 2951 - 2955. 2013.

Eden Morales Narváez; Abdel-Rahim Hassan; Arben Merkoçi. *Graphene Oxide as a Pathogen-Revealing Agent: Sensing with a Digital-Like Response*. Angewandte Chemie. 52 - 51, pp. 13779 - 13783. 2013.

Adaris María López Marzo; Josefina Pons; Diane A. Blake; Arben Merkoçi. *High sensitive gold-nanoparticle based lateral flow immunodevice for Cd²⁺ detection in drinking waters*. Biosensors & Bioelectronics. 47, pp. 190 - 198. 2013.

Tiziana Placido; Gemma Aragay; Josefina Pons; Roberto Comparelli; Maria Lucia Curri; Arben Merkoçi. *Ion-Directed Assembly of Gold Nanorods: a Strategy for Mercury Detection*. ACS Appl. Mater. Interfaces. 5 - 3, pp. 1084 - 1092. 2013.

Miguel García; Jahir Orozco; Maria Guix; Wei Gao; Sirilak Sattayasamitsathit; Alberto Escarpa; Arben Merkoçi; Joseph Wang. *Micromotor-Based Lab-on-Chip Immunoassays*. Nanoscale. 5, pp. 1325 - 1331. 2013.

Prof. Arben Merkoçi Publications

Adaris López Marzo; Josefina Pons; Arben Merkoçi. *Multifunctional system based on hybrid nanostructured-rods formation, for sensoremoval applications of Pb²⁺ as a model toxic metal*. J. Mater. Chem. A. 1, pp. 13532 - 13541. 2013.

Anna T.B. Silva; Andreane G. Coelho; Lourdes C. da S. Lopes; Marccus V.A. Martins; Frank Nestor Crespilho; Arben Merkoçi; Welter Cantanhede da Silva. *Nano-Assembled Supramolecular Films from Chitosan-Stabilized Gold Nanoparticles and Cobalt(II) Phthalocyanine*. J. Braz. Chem. Soc. 24 - 8, pp. 1237 - 1245. 2013.

Alfredo de la Escosura; Wilanee Chunglok; Werasak Surareungchai; Arben Merkoçi. *Nanochannels for diagnostic of thrombin-related diseases in human blood*. Biosensors and Bioelectronics. 40, pp. 24 - 31. 2013.

Alain Walcarius; Shelley D. Minteer; Joseph Wang; Yuehe Lin; Arben Merkoçi. *Nanomaterials for bio-functionalized electrodes: recent trends*. J. Mater. Chem. B. 1, pp. 4878 - 4908. 2013.

Arben Merkoçi. *Nanoparticles Based Electroanalysis in Diagnostics Applications*. Electroanalysis. 25 - 1, pp. 15 - 27. 2013.

Carmen C. Mayorga Martínez; Lenka Hlavata; Sandrine Miserere; Adaris López Marzo; Jan Labuda; Josefina Pons; Arben Merkoçi. *Nanostructured CaCO₃-PEI microparticles for phenol sensing in fluidic microsystem*. Electrophoresis. 34 - 14, pp. 2011 - 2016. 2013.

Claudio Parolo; Mariana Medina Sánchez; Helena Monton; Alfredo de la Escosura Muñiz; Arben Merkoçi. *Paper-Based Electrodes for Nanoparticle Detection*. Particle & Particle Systems Characterization. 30 - 8, pp. 662 - 666. 2013.

Claudio Parolo; Arben Merkoçi. *Paper-based nanobiosensors for diagnostics*. Chem. Soc. Rev. 42, pp. 450 - 457. 2013.

Raquel Güell; Claudia Fontàs; Gemma Aragay; Arben Merkoçi; Enriqueta Anticó. *Screen-printed electrodes incorporated in a flow system for the decentralized monitoring of lead, cadmium and copper in natural and wastewater samples*. International Journal of Environmental Analytical Chemistry. 93 - 8, pp. 872 - 883. 2013.

Claudio Parolo; Mariana Medina; Alfredo de la Escosura; Arben Merkoçi. *Simple paper architecture modifications lead to enhanced sensitivity in nanoparticle based lateral flow immunoassay*. Lab Chip. 13, pp. 386 - 390. 2013.

Merkoci, Arben and Kutter, Jorg P. *Analytical miniaturization and nanotechnologies*. Lab on a Chip, 12, 1915-1916. 2012.

Gemma Aragay, Georgina Alarcón, Josefina Pons, Mercè Font-Bardía, and Arben Merkoçi. *Medium Dependent Dual Turn-On/Turn-Off Fluorescence System for Heavy Metal Ions Sensing*. Journal of Physical Chemistry C, 116 (2), 1987-1994. 2012.

Sergio Marín, Arben Merkoçi. *Nanomaterials Based Electrochemical Sensing Applications for Safety and Security*. Electroanalysis, 24(3), 459-469. 2012.

Prof. Arben Merkoçi Publications

Susana Campuzano; Jahir Orozco; Daniel Kagan; Maria Guix; Wei Gao; Sirilak Sattayasamitsathit; Jonathan C Claussen; Arben Merkoçi; Joseph Wang. *Bacterial Isolation by Lectin-Modified Microengines*. Nano Letters. 12, pp. 396 - 401. 2012.

Carmen C. Mayorga; Maria Guix; Rossana E. Madrid; Arben Merkoçi. *Bimetallic Nanowires as Electrocatalyst for Nonenzymatic Real Time Impedancimetric Detection of Glucose*. Chem. Commun.48, pp. 1686 - 1688. 2012.

Maëlle Perfezou; Anthony Turner; Arben Merkoçi. *Cancer detection using nanoparticle-based sensors*. Chemical Society Reviews. 41, pp. 2606 - 2622. 2012.

Briza Pérez; Arben Merkoçi. *Carbon nanotubes and graphene in analytical sciences*. Microchimica Acta. 179, pp. 1 - 16. 2012.

Adaris López; Josefina Pons; Arben Merkoçi. *Controlled formation of nanostructured CaCO₃-PEI microparticles with high biofunctionalizing capacity*. Journal of Materials Chemistry. 22, pp. 15326 - 26335. 2012.

Gemma Aragay; Georgina Alarcón; Josefina Pons; Mercè Font; Arben Merkoçi. *Medium Dependent Dual Turn-On/Turn-Off Fluorescence System for Heavy Metal Ions Sensing*. J. Phys. Chem. C. 116 - 2, pp. 1987 - 1994. 2012.

Marisa Maltez; Alfredo de la Escosura; Carme Nogués; Lleonard Barrios; Elena Ibáñez; Arben Merkoçi. *Detection of Circulating Cancer Cells Using Electrocatalytic Gold Nanoparticles*. Small. 8 - 23, pp. 3605 - 3612. 2012.

Eden Morales; Arben Merkoçi. *Graphene Oxide as an Optical Biosensing Platform*. Advanced Materials. 24, pp. 3298 - 3308. 2012.

Alfredo de la Escosura; Arben Merkoçi. *Nanochannels Preparation and Application in Biosensing*. ACS Nano. 6, pp. 7556 - 7583. 2012.

Sergio Marín; Arben Merkoçi. *Nanomaterials Based Electrochemical Sensing Applications for Safety and Security*. Electroanalysis. 24 - 3, pp. 459 - 469. 2012.

Mariana Medina; Sandrine Miserere; Arben Merkoçi. *Nanomaterials and lab-on-a-chip technologies*. Lab Chip. 12, pp. 1932 - 1943. 2012.

Gemma Aragay; Arben Merkoçi. *Nanomaterials application in electrochemical detection of heavy metals*. Electrochimica Acta. 84, pp. 49 - 61. 2012.

Gemma Aragay; Flavio Pino; Arben Merkoçi. *Nanomaterials for Sensing and Destroying Pesticides*. Chemical Reviews. 112, pp. 5317 - 5338. 2012.

Alfredo de la Escosura; Arben Merkoçi. *Nanoparticles for Proteins and Cells Detection. Novel Tools for Clinical Diagnostics*. G.I.T. Laboratory Journal. 1-2/2012, pp. 21. 2012.

Mariana Medina; Sandrine Miserere; Sergio Marín; Gemma Aragay; Arben Merkoçi. *On-chip electrochemical detection of CdS quantum dots using normal and multiple recycling flow through modes*. Lab Chip. 12, pp. 2000 - 2005. 2012.

Prof. Arben Merkoçi Publications

Gemma Aragay; Helena Montón; Josefina Pons; Mercè Font; Arben Merkoçi. *Rapid and high sensitive detection of mercury ions using a fluorescence based paper test strip with a N-alkylaminopyrazole ligand as receptor*. Journal of Materials Chemistry. 22, pp. 5978 - 5983. 2012.

Edén Morales; Helena Montón; Anna Fomicheva; Arben Merkoçi. *Signal enhancement in antibody microarrays using quantum dots nanocrystals: Application to potential Alzheimer's disease biomarker screening*. Analytical Chemistry. 84 - 15, pp. 6821 - 6827. 2012.

Eden Morales; Briza Pérez; Luis Baptista Pires; Arben Merkoçi. *Simple Forster resonance energy transfer evidence for the ultrahigh quantum dot quenching efficiency by graphene oxide compared to other carbon structures*. Carbon. 50, pp. 2987 - 2993. 2012.

Marisa Maltez; Alfredo de la Escosura; Carme Nogués; Lleonard Barrios; Elena Ibáñez; Arben Merkoçi. *Simple Monitoring of Cancer Cells Using Nanoparticles*. Nanoletters. 12, pp. 4164 - 4171. 2012.

Maria Guix; Jahir Orozco; Miguel García; Wei Gao; Sirilak Sattayasamitsathit; Arben Merkoçi; Alberto Escarpa; Joseph Wang. *Superhydrophobic Alkanethiol-Coated Microsubmarines for Effective Removal of Oil*. ACS Nano. 6, pp. 4445 - 4451. 2012.

Helena Montón; Mónica Roldan; Arben Merkoçi; Emma Rossinyol; Onofre Castell; Carme Nogués. *The use of quantum dots for immunochemistry applications*. Methods in Molecular Biology. 906, pp. 185 - 192. 2012.

Arben Merkoçi. *A nanochannel / nanoparticle based filtering and sensing platform for direct detection of a cancer biomarker in blood*. Small. 7, pp. 675 - 682. 2011.

Sergio Marín; Silvia Pujals; Ernest Giralt; Arben Merkoçi. *Electrochemical Investigation of Cellular Uptake of Quantum Dots Decorated with a Proline-Rich Cell Penetrating Peptide*. Sergio Marín, Silvia Pujals, Ernest Giralt, Arben Merkoçi. Bioconjugate Chemistry. 22, pp. 180 - 185. 2011.

Gemma Aragay; Josefina Pons; Arben Merkoçi. *Enhanced electrochemical detection of heavy metals at heated graphite nanoparticle-based screen-printed electrodes*. Journal of Materials Chemistry. 21, pp. 4326 - 4331. 2011.

Briza Pérez; Arben Merkoçi. *Magnetic Nanoparticles Modified with Carbon Nanotubes for Electrocatalytic Magnetoswitchable Biosensing Applications*. Advanced Functional Materials. 2011.

Adriano Ambrosi; Maria Guix; Arben Merkoçi. *Magnetic and electrokinetic manipulations on a microchip device for bead-based immunosensing applications*. Electrophoresis. 32 - 8, pp. 861 - 869. 2011.

Briza Pérez; Arben Merkoçi. *Nanomaterials based biosensors for food analysis applications*. Trends in Food Science & Technology. 22 - 11, pp. 625 - 639. 2011.

Briza Pérez; Arben Merkoçi. *Nanoparticles for the development of improved (bio)sensing systems*. Analytical and Bioanalytical Chemistry. 399, pp. 1577 - 1590. 2011.

Prof. Arben Merkoçi Publications

Gemma Aragay; Josefina Pons; Arben Merkoçi. *Recent Trends in Macro, Micro and Nanomaterials Based Tools and Strategies for Heavy Metals Detection*. Chemical Review. 111 - 5, pp. 3433 - 3458. 2011.

Alfredo de la Escosura; Claudio Parolo; Flavio Maran; Arben Merkoçi. *Size-dependent direct electrochemical detection of gold nanoparticles: application in magnetoimmunoassays*. Nanoscale. 3 - 8, pp. 3350 - 3356. 2011.

Miguel Guerrero; Josefina Pons; Josep Ros; Mercè Font; Oriol Vallcorba; Jordi Rius; Vicenç Branchadell; Arben Merkoçi. *Variable behaviour of flexible N,O-mixed pyrazole ligand towards Zn(II), Cd(II) and Hg(II) ions. Synthesis, crystal structure and fluorescent properties*. CrystEngComm. 13 - 21, pp. 6457 - 6470. 2011.

Welter C. Silva, Maria Guix, Georgina A. Angeles, Arben Merkoçi, *Compact Microcubic Structures Platform based on Self-Assembly Prussian Blue Nanoparticles with Highly Tuneable Conductivity*, Phys. Chem. Chem. Phys., 12 (47), 15505 - 15511 .2010.

Alfredo de la Escosura-Muñiz, Claudio Parolo, Arben Merkoçi, *Immunosensing using nanoparticles*, Materials Today, 13, 24-34. 2010.

Pinar Kara, Alfredo de la Escosura-Muñiz, Marisa Maltez-da Costa, María Guix, Mehmet Ozsoz, Arben Merkoçi, *Aptamers based electrochemical biosensor for protein detection using carbon nanotubes platforms*, Biosensors and Bioelectronics 26, 1715–1718. 2010.

G. Alarcón, M. Guix, W. C. Silva, A. M. T. Ramirez Silva, M. Palomar Pardave, A. Merkoçi, *Enzyme entrapment by b-cyclodextrin electropolymerization onto carbon nanotube modified screen-printed electrode*, Biosensors and Bioelectronics 26, 1768–1773. 2010.

Arben Merkoçi, *Nanoparticles-based strategies for DNA, protein and cell sensors*, Biosensors and Bioelectronics 26, 1164–1177. 2010.

Alfredo de la Escosura-Muñiz, Marisa Maltez-da Costa, Christian Sánchez-Espinel, Belén Díaz-Freitas, Jonathan Fernández-Suarez, África González-Fernández, Arben Merkoçi, *Gold nanoparticle-based electrochemical magneto immunosensor for rapid detection of anti-hepatitis B virus antibodies in human serum*, Biosensors and Bioelectronics, 26, 1710–1714. 2010.

Alfredo de la Escosura-Muñiz, Arben Merkoçi, *Nanoparticle based enhancement of electrochemical DNA hybridization signal using nanoporous electrodes*, Chem. Commun., 46 (47), 9007 – 9009. 2010.

Alfredo de la Escosura-Muñiz, Arben Merkoçi, *Label-free voltammetric immunosensor using a nanoporous membrane based platform*, Electrochemistry Communications 12, 859–863. 2010.

Marisa Maltez-da Costa, Alfredo de la Escosura-Muñiz, Arben Merkoçi, *Electrochemical quantification of gold nanoparticles based on their catalytic properties on hydrogen formation: application in magneto immunoassays*, Electrochemistry Communications 12, 1501–1504. 2010.

A. de la Escosura-Muñiz, A. Merkoçi, *Electrochemical detection of proteins using nanoparticles: applications to diagnostics*, Expert Opinion on Medical Diagnostics 4(1), 21-37. 2010.

Prof. Arben Merkoçi Publications

Arben Merkoçi, Ulku Anik, Serdar Çevik, Meliha Çubukçu, Maria Guix-Noguera, *Bismuth Film Combined with Screen-Printed Electrode as Biosensing Platform for Phenol Detection*, *Electroanalysis*, 22, No. 13, 1429 – 1436. 2010.

Gemma Aragay, Josefina Pons, Josep Ros, Arben Merkoçi, *Aminopyrazole based ligand induces gold nanoparticle formation and remains available for heavy metals sensing. A simple 'mix and detect' approach*, *Langmuir*, 26 10165–10170. 2010.

Adriano Ambrosi, Federico Airò, Arben Merkoçi, *Enhanced Gold Nanoparticle based ELISA for Breast Cancer Biomarker*, *Analytical Chemistry*, 82, 1151–1156. 2010.

Guix M., Pérez-López B., Sahin M., Roldán M., Ambrosi A., Merkoçi A., *Structural characterization by confocal laser scanning microscopy and electrochemical study of multi-walled carbon nanotube tyrosinase matrix for phenol detection*, *Analyst*, 135, 1918–1925. 2010.

G. Alarcón, M. Guix, A. Ambrosi, M.T. Ramirez Silva, M.E. Palomar Pardave, A. Merkoçi, *Stable and Sensitive Flow Through Monitoring of Phenol Using a Carbon Nanotube Based Screen Printed Biosensor*”, *Nanotechnology* 21, 245502. 2010.

Gemma Aragay, Anna Puig-Font, Miquel Cadevall, and Arben Merkoçi, *Surface Characterizations of Mercury Based Electrodes with the Resulting Micro and Nano Amalgam Wires and Spheres Formations May Reveal Both Gained Sensitivity and Faced Non-Stability in Heavy Metal Detection*, *Journal of Physical Chemistry C*, 114, 9049–9055. 2010.

Aitor Mimendia; Andrey Legin; Arben Merkoçi; Manel del Valle, *Use of Sequential Injection Analysis to construct a Potentiometric Electronic Tongue: Application to the Multidetermination of Heavy Metals*, *Sensors and Actuators B* 146, 420–426. 2010.

Serge Cosnier, Shou-Nian Ding, Aymeric Pellissier, Karine Gorgy, Michael Holzinger, Briza Pérez López, Arben Merkoçi, *Permeability Improvement of Electropolymerized Polypyrrole Films in Water Using Magnetic Hydrophilic Microbeads*, *Electroanalysis*, 21, No. 7, 887 – 890. 2009.

Sergio Marin, Arben Merkoçi, *Direct electrochemical stripping detection of cystic fibrosis related DNA linked through cadmium sulphide quantum dots*, *Nanotechnology* 20, 055101 (6pp). 2009.

Xavier Llopis, Martin Pumera, Salvador Alegret, Arben Merkoçi, *Lab-on-a-chip for ultrasensitive detection of carbofuran by enzymatic inhibition with replacement of enzyme using magnetic beads*, *Lab Chip*, 9, 213–218. 2009.

B. Pérez López, A. Merkoçi, *Improvement of the electrochemical detection of catechol by the use of a carbon nanotube based biosensor*”, *Analyst*, 134, 60–64. 2009.

Roza Allabashi, Wolfgang Stach, Alfredo de la Escosura-Muñiz, Leticia Liste Calleja, Arben Merkoçi, *ICP-MS - a powerful technique for quantitative determination of gold nanoparticles without previous dissolving*, *Journal of Nanoparticles Research*, 11, 2003-2011. 2009.

Alfredo de la Escosura-Muñiz, Christian Sánchez-Espinel, Belén Díaz-Freitas, África González-Fernández, Marisa Maltez-da Costa, Arben Merkoçi, *Rapid identification of tumour cells using a novel electrocatalytic method based in gold nanoparticles*. *Analytical Chemistry*, 81, 10268–10274. 2009.

Prof. Arben Merkoçi Publications

Alfredo de la Escosura-Muñiz, Marisa Maltez-da Costa, Arben Merkoçi, *Controlling the electrochemical deposition of silver onto gold nanoparticles: Reducing interferences and increasing the sensitivity of magnetoimmuno assays*, *Biosensors & Bioelectronics*, 24, 2475–2482. 2009.

Raquel Güell, Gemma Aragay, Clàudia Fontàs, Enriqueta Anticó, Arben Merkoçi, *Sensitive and stable monitoring of lead and cadmium in seawater using screen-printed electrode and electrochemical stripping analysis*, *Anal. Chim. Acta* 627, 219–224. 2008.

Alfredo de la Escosura-Muñiz, Adriano Ambrosi, Arben Merkoçi, *Electrochemical analysis with nanoparticle based biosystems*, *Trends in Analytical Chemistry*, 27, p. 568-584. 2008.

Fraser Douglas, Ramon Yanez, Josep Ros, Sergio Marín, Alfredo de la Escosura, Salvador Alegret, Arben Merkoçi, *Silver, gold and the corresponding core shell nanoparticles for sensing applications*, *Journal of Nanoparticle Research*, 10, 97–106. 2008.

G. Alarcon Angeles, B. Pérez López, M. Palomar-Pardave, M. T. Ramírez-Silva, S. Alegret, A. Merkoçi, *Enhanced host guest electrochemical recognition of dopamine using cyclodextrin in the presence of carbon nanotubes*, *Carbon* 46, 898–906. 2008.

Briza Pérez, Joan Sola, Salvador Alegret, Arben Merkoçi, *A Carbon Nanotube PVC Based Matrix Modified with Glutaraldehyde Suitable for Biosensor Applications*. *Electroanalysis* 20, No. 6, 603 – 610. 2008.

Ülkü Anık (Kırgöz), Suna Timur, Meliha Çubukçu, Arben Merkoçi, *The Usage of Bismuth Film Electrode as Transducer in Glucose Biosensing*, *Microchim Acta*, 160, 269–273. 2008.

Briza Pérez, Manel del Valle, Salvador Alegret, Arben Merkoçi, *Carbon nanofiber vs. carbon microparticles as modifiers of glassy carbon and gold electrodes applied in electrochemical sensing of NADH*. *Talanta* 74, 398–404. 2007.

Adriano Ambrosi, Maria Teresa Castañeda, Anthony J. Killard, Malcolm R. Smyth, Salvador Alegret, Arben Merkoçi, *Double-Codified Gold Nanolabels for Enhanced Immunoanalysis*, *Analytical Chemistry*, 79, 5232-5240. 2007.

M.T.Castañeda, S.Alegret, A.Merkoçi, *Electrochemical sensing of DNA using gold nanoparticles*, *Electroanalysis* 19, 743 – 753. 2007.

Ülkü A. Kirgoz, Suna Timur, Dilek Odaci, Briza Pérez, Salvador Alegret, Arben Merkoçi, *Carbon nanotube composite as novel platform for microbial biosensor*, *Electroanalysis* 19, 893 – 898. 2007.

Arben Merkoçi, Editorial, *Nanobiomaterials in Electroanalysis*, *Electroanalysis* 19, 739 – 741. 2007.

Arben Merkoçi, Ed., *Nanobiomaterial Application in Electrochemical Analysis* Special Issue of *Electroanalysis on Nanobiomaterials*, Wiley InterScience, Volume 19, Issue 7-8. 2007.

Arben Merkoçi, *Electrochemical biosensing with nanoparticles*, *FEBS Journal* 274 310–316. 2007.

Prof. Arben Merkoçi Publications

Arben Merkoçi, Luiz Humberto Marcolino-Junior, Sergio Marín, Orlando Fatibello-Filho, Salvador Alegret, *Detection of cadmium sulphide nanoparticles by using screen-printed electrodes and a handheld device*, Nanotechnology 18, 035502 (6pp). 2007.

M.T. Castañeda, A. Merkoçi, M. Pumera, S. Alegret, *Electrochemical genosensors for biomedical applications based on gold nanoparticles*, Biosensors and Bioelectronics 22, 1961–1967. 2007.

Martin Pumera, Arben Merkoçi, Salvador Alegret, *Carbon nanotube detectors for microchip CE: Comparative study of single-wall and multiwall carbon nanotube, and graphite powder films on glassy carbon, gold, and platinum electrode surfaces*, Electrophoresis 28, 1274–1280. 2007.

Arben Merkoçi ed., *Carbon Nanotubes: Exciting New Materials for Microanalysis and Sensing*, Special Issue in Microchimica Acta, Springer Verlag Wien, 152. 2006.

Ülkü Anık Kirgöz, Dilek Odacı, Suna Timur, Arben Merkoçi, Salvador Alegret, Nurgün Beşün and Azmi Telefoncu, *A biosensor based on graphite epoxy composite electrode for aspartame and ethanol detection*, Analytica Chimica Acta, 570, 165–169. 2006.

Martin Pumera, Arben Merkoçi, Salvador Alegret. *Microchip electrophoresis with wall-jet electrochemical detector: Influence of detection potential upon resolution of solutes*, Electrophoresis 27, 5068–5072. 2006.

Ülkü Anık Kirgöz, Dilek Odacı, Suna Timur, Arben Merkoçi, Nurdan Pazarlıoğlu, Azmi Telefoncu, Salvador Alegret, *Graphite epoxy composite electrodes modified with bacterial cells*, Bioelectrochemistry, 69 128–131. 2006.

Martin Pumera, Arben Merkoçi, Salvador Alegret, *New materials for electrochemical sensing VII. Chip microfluidic platforms* Trends in Analytical Chemistry, 25, 219-235. 2006.

Arben Merkoçi, *Carbon nanotubes in analytical sciences. A review*. Microchimica Acta, 152, 157–174. 2006.

Martin Pumera, Xavier Llopis, Arben Merkoçi, Salvador Alegret, *Microchip Capillary Electrophoresis with a Single-Wall Carbon Nanotube/Gold Electrochemical Detector for Determination of Aminophenols and Neurotransmitters*, Microchimica Acta, 152, 261–265. 2006.

Arben Merkoçi, Sergio Marín, María Teresa Castañeda, Martin Pumera, Josep Ros, Salvador Alegret, *Crystal and electrochemical properties of water dispersed CdS nanocrystals obtained via reverse micelles and arrested precipitation*, Nanotechnology 17 2553–2559. 2006.

Martin Pumera, Arben Merkoçi, Salvador Alegret, *Microchip Capillary Electrophoresis-Electrochemistry with Rigid Graphite-Epoxy Composite Detector*, Electroanalysis, 18, 207 – 210. 2006.

A.Merkoçi, M.del Valle, S. Alegret, *Bionanostructures and their integration into electrochemical sensing system. A review of DNA applications*, Revista Mexicana de Física S 52 (2) 1–5. 2006.

Martin Pumera, Arben Merkoçi, Salvador Alegret, *Carbon nanotube-epoxy composites for electrochemical sensing*, Sensors & Actuators B, 113 617–622. 2006.

Prof. Arben Merkoçi Publications

Laura Moreno-Barón; Arben Merkoçi; Salvador Alegret; Lorenzo Leija; Pablo.R.Hernandez; Roberto Muñoz; Raul Cartas, *Application of the wavelet transform coupled with artificial neural networks in a voltammetric electronic tongue*, Sensors & Actuators B, 113 487–499. 2006.

Briza Pérez, Martin Pumera, Manel del Valle, Arben Merkoçi, Salvador Alegret, *Glucose Biosensor Based on Carbon Nanotube Epoxy Composites*, Journal of Nanoscience and Nanotechnology, 5, 1694–1698. 2005.

Arben Merkoçi, *DNA detection platforms by using nanoparticles as quantitation tags or encoded hosts*, G.I.T. Laboratory Journal Europe, 9, 48-50. 2005.

Laura Moreno-Barón, Raul Cartas, Arben Merkoçi, Salvador Alegret, Juan M.Gutierrez, Lorenzo Leija, Pablo R.Hernandez, Roberto Muñoz, Manuel del Valle, *Data compression for a voltammetric electronic tongue modelled with artificial neural networks*, Analytical Letters, 38, 2189–2206. 2005.

Arben Merkoçi, Martin Pumera, Xavier Llopis, Briza Perez, Manuel del Valle, Salvador Alegret, *New materials for electrochemical sensing VI. Carbon nanotubes*, Trends in Analytical Chemistry, 24, 826-838. 2005.

M.T. Castañeda, B. Pérez, M. Pumera, M. del Valle, A.Merkoçi, S. Alegret, *Sensitive stripping voltammetry of heavy metals by using a composite sensor based on a built-in bismuth precursor*, Analyst, 130, 971 – 976. 2005.

Martin Pumera, Maria Teresa Castañeda, Maria Isabel Pividori, Ramon Eritja, Arben Merkoçi, Salvador Alegret, *Magnetically triggered direct electrochemical detection of DNA hybridization based Au67 Quantum Dot – DNA – paramagnetic bead conjugate*, Langmuir 21, 9625-9629. 2005.

Ülkü Anık Kirgöz, Sergi Marín, Martin Pumera, Arben Merkoçi, Salvador Alegret, *Stripping voltammetry with bismuth modified graphite-epoxy composite electrodes*, Electroanalysis, 17, 881-886. 2005.

Martin Pumera, Marta Aldavert, Cris Mills Arben Merkoçi, Salvador Alegret, *Direct voltammetric determination of gold nanoparticles using graphite-epoxy composite electrode*, Electrochimica Acta, 50 3702–3707. 2005.

A.Merkoçi, S. Alegret, *Toward nanoanalytical chemistry. Case of nanomaterial integration into (bio)sensing systems*, Contribution to Science, 3 (1), 57–66. 2005.

X. Llopis, A.Merkoçi, M. del Valle, S.Alegret, *Integration of a glucose biosensor based on an epoxy-graphite-TTF-TCNQ-GOD biocomposite into a FIA system*, Sensors and Actuators B, 107 742–748. 2005.

A. Merkoçi, M. Aldavert, S. Marín, S. Alegret, “New materials for electrochemical sensing. V. Nanoparticles for DNA labelling”, Trends in Analytical Chemistry, 24 341-349 (2005)

S.Alegret, A.Merkoçi, *Nanoscience and nanotechnology in Catalonia*, Special Issue of Contribution to Science, Printed by Institut d’Estudis Catalans, Barcelona. 2005.

M. Vasjari, A. Merkoçi, J. P. Hart, S. Alegret, *Amino acid determination using screen-printed electrochemical sensors*, Microchimica Acta, 150 233-238. 2005.

Prof. Arben Merkoçi Publications

A. Merkoçi, M. Aldavert, Gema Tarrasón, Ramon Eritja, S. Alegret, *Toward an ICPMS-linked DNA assay based on gold nanoparticles immunocconnected through peptide sequences*, *Analytical Chemistry*, 77,6500-6503. 2005.

Dongchan Shin, Donald A. Tryk, Akira Fujishima, Arben Merkoçi, Joseph Wang, *Resistance to Surfactant and Protein Fouling Effects at Conducting Diamond Electrodes*, *Electroanalysis*, 17, 305-311. 2005.

L. Moreno, A. Merkoçi, S. Alegret, S. Hernández-Cassou, J. Saurina, *Analysis of amino acids in complex samples by using voltammetry and multivariate calibration methods*, *Analytica Chimica Acta* 507 247–253. 2004.

J. Tan, A. Merkoçi, S. Alegret and F. Sevilla, *Oil dispersion of AgI/Ag₂S salts as a new electroactive material for potentiometric sensing of iodide and cyanide*, *Sensors and Actuators B* 101, 57–62 . 2004.

S.Carrégalo, A. Merkoçi, S. Alegret, *Application of Graphite-Epoxy Composite Electrodes in Differential Pulse Anodic Stripping Voltammetry of Heavy Metals*, *Microchimica Acta* 147, 245–251. 2004.

Joseph Wang, Ronen Polsky, Arben Merkoçi and Kathy L. Turner, *Electroactive beads for ultrasensitive DNA detection* *Langmuir*, 19 989-991. 2003.

Joseph Wang, Guodong Liu, and Arben Merkoçi, *Electrochemical Coding Technology for simultaneous detection of multiple DNA targets*. *Journal of American Chemical Society*, 125 3214-3215. 2003.

J. Tan, J. Bergantin, A. Merkoçi, S. Alegret and F. Sevilla, *All-solid-state potentiometric sensor for iodide based on the oil dispersion of mixed AgI/Ag₂ salts*, *AsiaSENSE*, 129-133. 2003.

M. Vasjari, A Merkoçi, S. Alegret, *Some problems arising during the application of biocomposite based glucose biosensor in real blood samples*, *Albanian Journal of Natural and Technical Sciences*, 14 83-92. 2003.

M.I.Pividori, A.Merkoçi, S.Alegret, *PCR-genosensor rapid test for detecting Salmonella* *Electroanalysis*, 15, 1815-1823. 2003.

E. Williams, M.I.Pividori, A.Merkoçi, R. J. Forster, S.Alegret, *Rapid electrochemical genosensor using a streptavidin-carbon-polymer composite*, *Biosensors & Bioelectronics*, 19 165-175. 2003.

Joseph Wang, Guodong Liu, and Arben Merkoçi, *Particle-based Detection of DNA Hybridization using Electrochemical Stripping Measurements of an iron Tracer*, *Analytical Chimica Acta*, 482 149-155. 2003.

M.I.Pividori, A.Merkoçi, S.Alegret, *Graphite-epoxy composites as a new transducing material for electrochemical genosensing*, *Biosensors & Bioelectronics*, 19, 473-484. 2003.

L. Moreno, A. Merkoçi, S. Alegret, *Graphite-epoxy composite as an alternative material to design mercury free working electrodes for stripping voltammetry*. *Electrochimica Acta*, 48 2599-2605. 2003.

Prof. Arben Merkoçi Publications

S. Solé, A. Merkoçi and S. Alegret, *Determination of toxic substances based on enzyme inhibition. Part I: Electrochemical biosensors for the determination of pesticides using batch procedures*, *Critical Reviews in Analytical Chemistry*, 33(2) 89-126. 2003.

S. Solé, A. Merkoçi and S. Alegret, *Determination of toxic substances based on enzyme inhibition. Part II: Electrochemical biosensors for the determination of pesticides using flow systems*", *Critical Reviews in Analytical Chemistry*, 33(2) 127-143. 2003.

M. Serradell, S. Izquierdo, L. Moreno, A. Merkoçi, S. Alegret, *A free-mercury PSA of heavy metals using graphite-epoxy composite electrodes*, *Electroanalysis*, 14 1281-1287. 2002.

A.Merkoçi, S.Alegret, *New materials for electrochemical sensing. IV. Molecular imprinted polymers*, *Trends in Analytical Chemistry*, 21 717-725. 2002.

Joseph Wang, Guodong Liu, Ronen Polsky and Arben Merkoçi, *Electrochemical stripping detection of DNA hybridization based on cadmium sulfide nanoparticle tags*, *Electrochemistry Communication*, 4 722-726. 2002.

Joseph Wang, Mustafa Musameh, Arben Merkoçi, Yuehe Lin *Low-potential stable NADH detection at carbon-nanotube modified glassy carbon electrodes*, *Electrochemistry Communication*, 4 743-746. 2002.

J. Tan, A. Merkoçi, S. Alegret and F. Sevilla, *All-solid-state potentiometric sensor for iodide and cyanide based on a mixed AgI/Ag₂S/Epoxy membrane*, *Kimika*, 18 23-28. 2002.

S.Solé, A.Merkoçi, S.Alegret, *New materials for electrochemical sensing. III. Beads*, *Trends in Analytical Chemistry*, 20 102-110. 2001.

M. Albareda-Sirvent, A. Merkoçi and S. Alegret, *Pesticide determination in tap water and juice samples using disposable amperometric biosensors designed by thick-film technology*, *Analytica Chimica Acta*, 442 35-44. 2001.

M. Albareda-Sirvent, A. Merkoçi and S. Alegret, *Thick-film biosensors for pesticides produced by screen-printing of graphite-epoxy composite and biocomposite pastes*, *Sensors and Actuators B*, 79 48-57. 2001.

M.I.Pividori, A.Merkoçi, S.Alegret, *Dot-blot amperometric genosensor for detecting a novel determinant of β -lactamase resistance in Staphylococcus aureus*, *The Analyst*, 126 1551-1557. 2001.

M.I.Pividori, A.Merkoçi, S.Alegret, *Classical dot-blot format implemented as an amperometric hybridisation genosensor*, *Biosensors & Bioelectronics*, 16 1133-1142. 2001.

M.Vasjari, A.Merkoçi, E. Fàbregas, S.Alegret, *Potentiometric characterisation of acid rains using corrected linear plots*, *Analytica Chimica Acta* 405 173-178. 2000.

M.Vasjari, A.Merkoçi, E. Fàbregas, S.Alegret, *Determination of Pb and Cu by anodic stripping voltammetry using glassy carbon electrodes modified with mercury or mercury nafion films*, *Microchimica Acta*, 135 29-33. 2000.

Prof. Arben Merkoçi Publications

M.I.Pividori, A.Merkoçi, S.Alegret, *Electrochemical genosensor design. Immobilization of oligonucleotides onto transducer surfaces and detection*, Biosensors & Bioelectronics, 15 291-303. 2000.

M. Albareda, A.Merkoçi and S. Alegret, *Configurations used in the design of screen-printed enzymatic biosensors. A review*, Sensors and Actuators B, 69 153-163. 2000.

B. Baraj, L. F. Hax Niencheski, J. A. Soares, M. Martinez, A. Merkoçi, *Comparison of chromium speciation by CZE and ion exchange followed by AAS*, Fresenius Journal of Analytical Chemistry, 367 12-16. 2000.

A.Merkoçi, E.Fàbregas, S.Alegret, *Consolidated biocomposite membrane technology for production of potentiometric biosensors*, Sensors and Actuators B 60 97-105. 1999.

A.Merkoçi, E.Fàbregas, S.Alegret, *A practical approach to potentiometric biosensors based on consolidated composites. Construction and evaluation of a D-amygdalin biosensor*, The Chemical Educator 4, 137-140. 1999.

A.Merkoçi, S.Braga, E.Fàbregas, S.Alegret, *A potentiometric biosensor for D-amygdalin based on a consolidated biocomposite membrane*, Analytical Chimica Acta, 391 65-72. 1999.

S.Alegret, E.Fàbregas, F.Céspedes, A.Merkoçi, S.Solé, M.Albareda, M.I.Pividori, *The strategy of renewing biosensor surface: past, present and future. A review*, Química Analítica, 18 (suppl. 1), 23-29. 1999.

A.Sastre, A.Merkoçi, B.Baraj, *Characterisation of di(2-ethylhexyl)thiophosphoric acid by potentiometric titration and capillary zone electrophoresis*, Fresenius Journal of Analytical Chemistry, 358 489-492. 1997.

C.Maccà, M.Bradshaw, A.Merkoçi, G.Scollary, *Stripping potentiometry of lead, cadmium and copper at a Nafion coated glassy carbon electrode with encapsulated mercury acetate*, Analytical Letters, 30 1223-1234. 1997.

C.Maccà, A.Merkoçi, *Potentiometric characterization of weak acids by multiple sample additions. II. The effect of chemical interferences and the practical performance of linearization methods*, Talanta, 42 1433-1445. 1995.

B.Baraj, A.Sastre, A.Merkoçi, M.Martinez, *Determination of chloride complex of Au(III) by capillary zone electrophoresis with direct UV detection*, Journal of Chromatography A, 718 227-232. 1995.

M.I.Karayannis, P.G.Veltsistas, A.Merkoci, *Kinetic and mechanistic study of the oxamate copper (II) complexation, monitored by the Cu(II) ISE*, Electroanalysis, 7 109-113. 1995.

B.Baraj, A.Merkoçi, F.Livardjani, A. Jaeger, M.J.F Leroy, *On the interference of Fe(III) in the spectrophotometric determination of Mn as MnO₄⁻*, Analusis 22 408-409. 1994.

C.Maccà, A.Merkoçi, *Potentiometric characterization of weak acids by multiple sample additions. I. Linear equations and intrinsic performance of the method*, Talanta, 41 2033-2042. 1994.

Prof. Arben Merkoçi Publications

A.Merkoçi, V.Çoçoli, B.Baraj, S.Buzo, *Determination of Ammonium ion in urine using an ammonium ion-selective electrode*, Acta Chimica Hungarica-Models in Chemistry 130 19-24. 1993.

A.Merkoçi, B.Baraj, S.Buzo, *Determination of total and free calcium in serum by a macro measurement ion-selective electrode and a micro reference electrode*. Japanese Journal of Clinical Laboratory Automation, 17 92-96. 1992.

A.Merkoci, *On the preparation of the copper ion-selective electrode with solid membrane and the determination of its characteristics*, Bulletin of Natural Science (Albania), 2 37- 42 . 1990.

S.Buzo, A.Merkoci, A.Seiti , *Some problems in the determination of potassium concentration by macro ISE adapted for micro volumes*, Medical Magazine (Albania), 6 70-74. 1990.

B) Book chapters:

Briza Pérez-López and Arben Merkoçi, *Electrochemical Genosensors*, Chapter 10, 295–316, Book: Agricultural and Food Electroanalysis, John Wiley & Sons, Ltd. 2015.

Alfredo de la Escosura-Muñiz, Marisol Espinoza-Castañeda, Arben Merkoçi, Protein and DNA Electrochemical Sensing Using Anodized Aluminum Oxide Nanochannel Arrays, Chapter 9, Book: Nanoporous Alumina Fabrication, Structure, Properties and Applications, Springer Series in Materials Science 219, © Springer International Publishing Switzerland, DOI 10.1007/978-3-319-20334-8. 2015.

Marisol Espinoza-Castañeda, Alfredo de la Escosura-Muñiz, Arben Merkoçi, *Nanoparticle/Nanochannels-Based Electrochemical Biosensors*, Chapter 9, p.205-223, Book: Electrospinning for High Performance Sensors), Springer. 2015.

Sandrine Miserere, Arben Merkoçi, *Microfluidic electrochemical biosensors; fabrication and applications*. Chapter 6 pages 141-160. Book: Lab-on-a-Chip and Micro Total Analysis Systems – A Practical Guide. 2015.

Lourdes Rivas, Alfredo de la Escosura-Muñiz, Josefina Pons, Arben Merkoçi, *Lateral Flow Biosensors Based On Gold Nanoparticles*, Book “Gold Nanoparticles in Analytical Science and Technology” of Elsevier CAC series. 2014.

Miquel Cadevall, Josep Ros, Arben Merkoçi, *Bismuth based nanomaterials and platforms for (bio)sensing applications*, Chapter at Book: Functional and Physical Properties of Polymer Nanocomposites, John Wiley & Sons Ltd. 2014.

Alfredo de la Escosura-Muñiz, Arben Merkoçi. *Application of Nanomaterials for DNA Sensing*. Book: Nucleic Acids Nanotechnology (DOI 10.1007/978-3-642-38815-6_12), 12, 305-331. 2014.

Alarcon-Angeles, G., Álvarez-Romero, G.A. and Merkoçi, A. *Graphene and Carbon Nanotube-based Electrochemical Biosensors for Environmental Monitoring*. Book: Advanced Carbon Materials and Technology (doi: 10.1002/9781118895399.ch3), 3, 87. 2014.

Prof. Arben Merkoçi Publications

G.A. Álvarez-Romero, G. Alarcon-Angeles, A. Merkoçi. *Graphene: Insights of its Application in Electrochemical Biosensors for Environmental Monitoring*. Book: Biosensors Nanotechnology, 5, 111–140. 2014.

Claudio Parolo, Alfredo de la Escosura-Muñiz, Arben Merkoçi. *Electrochemical DNA Sensors based on Nanoparticles*. Book: Electrochemical biosensors, 7. 2013.

Jordi Pascual, Arben Merkoçi, Daniel MasPOCH, Victor PUNTES, Aurora Conill. *Nanotecnología: concepto y fundamentos*. Book: Nanotecnología en Medicina, 1. 2013.

Sergio Marín, Arben Merkoçi. *Electrochemical detection of DNA using nanomaterials based sensors*. Book: Detection of non amplified genomic DNA, Chapter 8, 185-202. 2012.

Mariana Medina, Arben Merkoçi. *Micro and Nanomaterials based detection systems applied in lab-on-a-chip technology*. Book: Handbook of Green Analytical Chemistry, Chapter 18, 389-405. 2012.

Briza Pérez-López, Arben Merkoçi. *Nanomaterials-based (bio)sensing systems for safety and security applications*. Book: Biosensors for safety and security applications, D.P. Nikolelis (ed.), Portable Chemical Sensors: Weapons Against Bioterrorism, 43 NATO Science for Peace and Security Series A: Chemistry and Biology, DOI 10.1007/978-94-007-2872-1_3, © Springer Science+B, 3, 43-61. 2012.

M. Maltez-da Costa, A. de la Escosura-Muñiz, A. Merkoçi. *Nanoparticle induced catalysis for electrochemical DNA biosensors*. Book: Electrochemical DNA biosensors, 5, 141-162. 2012.

M. Medina, A. Merkoçi. *Micro and Nanomaterials based detection systems applied in lab-on-a-chip technology*. Book: Handbook of Green Analytical Chemistry (edited by Professor Miguel de la Guardia and Professor Salvador Garrigues), Edition John Wiley & Son Submitted. 2011.

A. de la Escosura-Muñiz, A. Merkoçi and M. Medina. *New trends in DNA sensors for environmental applications. Nanomaterials, miniaturisation and lab-on-a-chip technology*. Book: Nucleic Acid Biosensors for Environmental Monitoring. Ed. Ilaria Palchetti and Marco Mascini. Published by the Royal Society of Chemistry., Chapter 8, 143-166. 2011.

A. Merkoçi, A. Ambrosi, A. de la Escosura, B. Pérez, M. Guix, M. Maltez, S. Marin, *Nanomaterials for Electroanalysis* in Encyclopedia of Analytical Chemistry, eds R.A. Meyers, John Wiley: Chichester. DOI: 10.1002/9780470027318.a9077. 2010.

Maria Teresa Castañeda, Salvador Alegret, Arben Merkoçi, *Electrochemical Detection of DNA Hybridization Using Micro and Nanoparticles*, Chapter 9 at Book: Methods in Molecular Biology: Biosensors and Biodetection, © Humana Press (DOI:10.1007/978-1-60327-569-9_9), Vol. 504, p. 127-143. 2009.

Alfredo de la Escosura, Adriano Ambrosi, Salvador Alegret, Arben Merkoçi, *Electrochemical Immunosensing Using Micro and Nanoparticles*, Chapter 10 at book: Methods in Molecular Biology: Biosensors and Biodetection, © Humana Press (DOI:10.1007/978-1-60327-569-9_9), Vol. 504, p. 145-155. 2009.

Arben Merkoçi, *Biosensing using Nanomaterials*, Wiley Series in Nanoscience and Nanotechnology, Arben Merkoçi, Series Editor, A John Wiley & Sons, Inc, Publication. 2009.

Prof. Arben Merkoçi Publications

R. Cartas, L. Moreno-Barón, A. Merkoçi, S. Alegret, M. del Valle, J.M. Gutiérrez, L. Leija, P.R. Hernandez, R. Muñoz, *Multivariate Calibration Model for a Voltammetric Electronic Tongue Based on a Multiple Output Wavelet Neural Network*, 137, Chapter 9, p.137-164, at book: *Biologically Inspired Signal Processing for Chemical Sensing*, Studies in Computational Intelligence, Volume 188, 2009.

Adriano Ambrosi, Maria Teresa Castañeda, Alfredo de la Escosura-Muñiz, Arben Merkoçi, *Gold nanoparticles a powerful label for affinity electrochemical biosensors*, Chapter 6 at book: *BIOSENSING USING NANOMATERIALS – BIONANO*, pp 177-197, Edited by Arben Merkoçi, Wiley-Interscience. 2009.

Arben Merkoçi, Roza Allabashi, Alfredo de la Escosura-Muñiz, *Inductively coupled plasma mass spectroscopy of nanoparticles. New horizons for biosensing applications*, Chapter 12 at book: *Biosensing using Nanomaterials*, Wiley Series in Nanoscience and Nanotechnology, Arben Merkoçi, Series Editor, A John Wiley & Sons, Inc, Publication. 2009.

Briza Pérez, Arben Merkoçi, *Application of carbon nanotubes in analytical chemistry*, Chapter at book: *Chemistry of Carbon Nanotubes*. American Scientific Publishers. 2008.

Arben Merkoçi, Salvador Alegret, *Graphite-epoxy electrodes for stripping analysis*, Chapter 7 at Volume 49 "Electrochemical Sensor Analysis", Alegret and Merkoçi (Eds), *Comprehensive Analytical Chemistry*, Elsevier B.V., p.143-161. 2007.

A. Merkoçi, U.Kirkoz, S.Alegret, *Determination of lead and cadmium in tap water and soils by stripping analysis using mercury-free graphite-epoxy composite electrodes*, Procedure 7 at Volume 49 "Electrochemical Sensor Analysis" Alegret and Merkoçi (Eds), *Comprehensive Analytical Chemistry*, Elsevier B.V., e47-52. 2007.

M.Pumera, A.Merkoçi, S.Alegret, *Microchip electrophoresis/electrochemistry systems for analysis of nitroaromatic explosives*, Chapter 35 at Volume 49 "Electrochemical Sensor Analysis", Alegret and Merkoçi (Eds), *Comprehensive Analytical Chemistry*, Elsevier B.V., p.873-884. 2007.

M.Pumera, A.Merkoçi, S.Alegret, *Analysis of nitroaromatic explosives with microchip electrophoresis using a graphite-epoxy composite detector*, Procedure 49 at Volume 49 "Electrochemical Sensor Analysis", Alegret and Merkoçi (Eds), *Comprehensive Analytical Chemistry*, Elsevier B.V., e351-355. 2007.

Arjan Durrresi, Arben Merkoçi, Mimoza Durrresi, Leonard Barolli, *Integrated Biomedical System for Ubiquitous Health Monitoring*. Chapter at book: *NBiS 2007* (Springer-Verlag Berlin Heidelberg 2007), LNCS 4658, pp. 397–405. 2007.

S. Alegret, A.Merkoçi ed., *Electrochemical Sensor Analysis*, Alegret and Merkoçi (Eds), Volume 49, *Comprehensive Analytical Chemistry*, Elsevier B.V. 2007.

A.Merkoçi, S.Alegret, *Quantum dots (QDs) as tracers for DNA electrochemical sensing systems*. Chapter 26 at book: *Nanotechnology in Biology and Medicine. Methods, Devices and Applications*, p. 26-1 to 26-16, CRC Press, ISBN 0-8493-2949-3. 2007.

Prof. Arben Merkoçi Publications

M.T. Castañeda, M. Pumera, S. Alegret, A. Merkoçi, *DNA analysis by using gold nanoparticle labels*, Procedure 53 at Volume 49 "Electrochemical Sensor Analysis", Alegret and Merkoçi (Eds), Comprehensive Analytical Chemistry, Elsevier B.V., e381-388. 2007.

Arben Merkoçi, *Nanobiotechnology – drug delivery, imaging and nanobiosensors using nanomaterials*, DOI: 10.2436/20.1501.02.44 Les biotecnologies (Pere Puigdomènech i Francesc Gòdia, ed.), Treballs de la SCB. Vol 58. 51-62. 2007

M.T. Castañeda, S. Alegret, A. Merkoçi, *Gold nanoparticles in DNA and protein analysis*, Chapter 38 at Volume 49 "Electrochemical Sensor Analysis", Alegret and Merkoçi (Eds), Comprehensive Analytical Chemistry, Elsevier B.V., p.941-958. 2007.

Arben Merkoçi, *Nanoscience and nanotechnology. Applications in different fields including that of biosensors* (In albanian). ANASH (ISBN: 0101062006_0136) 1, 4-8. 2006.

Arben Merkoçi, *Application of nanomaterials in the design of new electrochemical sensors and biosensors*, Chapter at book: Desafíos de la sociedad Científico Tecnológico Actual, p. 361-385, ISBN 84-608-0418-6. 2006.

S. Alegret, A. Merkoçi, M.I. Pividori and M. del Valle, Chapter: *Electrochemical (bio)sensors based on rigid conducting carbon-polymer composites*, Enciclopedia of Sensors, Volume 3, 23-44. 2006.

S. Alegret, A. Merkoçi, M.I. Pividori and M. del Valle, *Electrochemical (bio)sensors based on rigid conducting carbon-polymer composites*, Chapter at book: Enciclopedia of Sensors, 2005

Arben Merkoçi, Maria Teresa Castañeda, Salvador Alegret, *Stripping analysis of heavy metals by using mercury free composite based sensors* . Chapter at book: 'Pure & Applied Analytical Chemistry', p.1-22, 2005.

Salvador Alegret, Manel del Valle, Arben Merkoçi, *Sensores Electroquímicos* (In Spanish; 172 pp). ISBN: 84-490-2361-0. 2004.

S. Alegret and A. Merkoçi, *Composite and biocomposite materials for electrochemical sensing*, Chapter at book: Integrated analytical systems, Elsevier, 377-412 ISBN: 0-444-51037-0. 2003.