

# CURRICULUM VITAE



## GENERAL INFO

Name, Surname

**ILARIA PALCHETTI**

Address

ASSOCIATE PROFESSOR IN ANALYTICAL CHEMISTRY

DIPARTIMENTO DI CHIMICA UGO SCHIFF, UNIVERSITÀ DEGLI STUDI DI FIRENZE  
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Italian

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## SUMMARY OF PUBLICATION ACTIVITY

Prof. Iliaria Palchetti is author of more than 135 papers on biosensors development, including 73 papers on peer reviewed journals, 23 book chapters and many congress proceedings. She is co-editor of the book *Nucleic Acid Biosensors for Environmental Pollution Monitoring*, Royal Society of Chemistry, 2011, ISBN: 978-1-84973-131-7 and scientific journal special issues.

All her papers evaluated in the recent Italian VQR 2010-2014 received the maximum score.

**Total citation number:** 3862 (Scopus 29/02/2020);

**h-index:** 37 (Scopus 29/02/2020)

## PROFESSIONAL EXPERIENCE

- **2015- Present:** Permanent position at the Department of Chemistry "Ugo Schiff", University of Florence, as Associate Professor

- **2014- 2018:** IBP-CNR Associate

- **2002 –2015:** Permanent position at the Department of Chemistry, University of Florence, as Researcher.

- **1999-2001** Post-doctorate position at the Department of Chemistry, University of Florence.

## EDUCATION

- 1998

**PhD degree in Environmental Science** gained at the University of Firenze.

- 1994

Graduation in **Chemistry and Pharmaceutical Technology** (Dottore in Chimica e Tecnologia Farmaceutica) 20/10/1994 with 110/110 at the University of Firenze (Italy).

## RESEARCH GRANTS

<i>Grant Description</i>	<i>Role</i>
Ente Cassa di Risparmio di Firenze 2018, n.2010944: Chip ottico integrato a modi di galleria per il monitoraggio di processo delle acque reflue civili e industriali	Principal Investigator
Eranet photonicsensing 2018 (H2020-ICT-2015), GA n. 688735 - Safe Water	Research Unit Leader
Fondo MIUR FFABR 2017	
PRIN 2012: GA number 20128ZZS2H, settore ERC PE4; Dispositivi diagnostici nanostrutturati per il monitoraggio di biomarcatori nelle malattie tumorali	Principal Investigator
Ente Cassa di Risparmio di Firenze 2014: Sviluppo di piattaforme bioanalitiche nanostrutturate per la diagnostica molecolare applicata alle malattie tumorali	Principal Investigator
PON 2012: Biodefensor PON01_01585: Prodotti innovativi per il monitoraggio e la decontaminazione/detossificazione di agenti nervini ed esplosivi nell'ambiente e/o per la gestione delle emergenze	Research Unit Leader
Bando MiPAAF: BEM: BioElettricità Microbica, finanziato da MiPAAF con Decreto Ministeriale n. 31736 del 1/12/2009	Research Unit Leader
REGIONE TOSCANA: Programma per la Ricerca Regionale in materia di Salute 2009, titolo: "Microsistemi microinvasivi per il monitoraggio del glucosio in pazienti diabetici"	Research Unit Participant
PRIN 2009: prot. 2009 MB4AYL003, area 03 – chimica; Biosensori realizzati con nanomateriali per una rapida identificazione di biomarcatori tumorali	Research Unit Participant
AZIONE INTEGRATA ITALIA-SPAGNA 2009-2010: Miur prot.n 279 del 9/2/2011	Research Unit Participant
EU FP7: Innovative electrodes to control trace metal ionization used to treat Legionella and other pathogens in water distribution systems-Silco, grant number FP7-SME-2008-1- 232249, (Management and member of Research Unit team)	Research Unit Participant and management Leader
ACCORDO DI COOPERAZIONE SCIENTIFICA E TECNOLOGICA ITALIA-ALBANIA 2008-2010: Sviluppo di biosensori a base di DNA elettrochimici, piezoelettrici e ottici per l'analisi ed il controllo di organismi geneticamente modificati (OGM) e prodotti	Research Unit Participant

derivati

PRIN 2005: prot. 2005030782\_002, area 03 – chimica; Realizzazione di genosensori e aptasensori per la determinazione rapida di allergeni alimentari Research Unit Participant

ASI 2005: Dalle Molecole all'Uomo: La Ricerca Spaziale applicata al miglioramento della Qualità della Vita della popolazione anziana, DEL-014-i2 Research Unit Participant

PRIN 2003: prot. 2003035285\_001, area 03 – chimica; Biosensori a DNA per una Rapida Identificazione dei Microorganismi Patogeni nelle Filiere Alimentari Research Unit Participant

EU FP6: CARE-MAN- HealthCARE by biosensor Measurements And Networking, 2005-2011, NMP4-CT-2006-017333 Research Unit Participant

EU FP5: MICS Innovative functional materials and associated technologies, 2001-2004, G5RD- CT-2000-00327 Research Unit Participant

FONDI DI ATENEEO 2011, 2014 Pricipal Investigator

FONDI DI ATENEEO 2016, 2015, 2013, 2012, e per gli anni 2010- 2002 Participant

## RESEARCH ACTIVITY

Analytical Chemistry; Electroanalysis; Clinical Chemistry; Environmental Chemistry; Sensors and biosensors technology (electrochemical, optical and piezoelectric sensors and biosensors); Biomolecule immobilisation techniques; Nucleic acids, enzyme, peptide, MIPs and antibody based biosensors development; Nucleic acid manipulation techniques (DNA extraction, polymerase chain reaction, DNA purification); Electrophoresis; Chromatography; Characterization of novel natural and synthetic biomolecular recognition systems; Micro-technologies for sensor production (thick film technology and ink jet technology); Nanomaterials

## TEACHING ACTIVITY

Supervision of Students and Teaching experience in University of Florence (Italy) and in international Universities

## AWARDS

2018 – Scientific Qualification as Full Professor in Analytical Chemistry (Italian Ministry of Education, University and Research)

2019, 2018, 2017 - Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek – Vlaanderen, FWO) expert panel member (SBWT41: Analytical and inorganic chemistry) for the selection of PhD fellowships strategic basic research (SB)

2017 - Fondo MIUR FFABR 2017

2017 - VQR 2011-2014: papers ranked as excellent: 1) *Angewandte Chemie Int. Ed.*, vol. 51, p. 1316-1332, ISSN: 1433-7851, doi: 10.1002/anie.201006630; 2) *Analytical and Bioanalytical Chemistry*, vol. 405, p. 1025-1034, ISSN: 1618-2642, doi: 10.1007/s00216-012-6476-7; 3) *Environmental Pollution*, vol. 161, p. 229-234, ISSN: 0269-7491, doi: 10.1016/j.envpol.2011.1.001

2017 - Advisory Board Member the International PhD Program “REP-EAT”, H2020-REP-EAT-GA-713714, Food Quality and Food Innovative Strategies To

Prevent Reproductive and Eating Disorders, Università degli Studi di Teramo, Italy

2014 – Scientific Qualification as Full Professor in Analytical Chemistry (Italian Ministry of Education, University and Research)

2013 – Scientific Qualification as Associate Professor in Analytical Chemistry (Italian Ministry of Education, University and Research)

2013- VQR 2004-2010: papers ranked as excellent: 1) Biosensors & Bioelectronics, vol. 22, p. 1544-1549, ISSN: 0956-5663, doi: 10.1016/j.bios.2006.06.001; 2) Biosensors & Bioelectronics, vol. 24, p. 2028-2033, ISSN: 0956-5663, doi: 10.1016/j.bios.2008.10.008; 3) Biosensors & Bioelectronics, vol. 23, p. 1602-1609, ISSN: 0956-5663, doi: 10.1016/j.bios.2008.01.020

2007 - IUPAC Task group membership, project n. 2006-026-1-500 Electrochemical DNA-based biosensors: terms and methodology, Project of Analytical Chemistry Division (2007-2010).

2007 - Among the 10 finalists of the National Innovation Awards (PNI Premio Nazionale dell'Innovazione) in collaboration with Università di Napoli.

2001 - Young Researcher Award, Università degli Studi di Firenze

1998 - Scholarship of European Science Foundation, Artificial Biosensing Interface (ABI) program.

1996 - Erasmus FREEMOVER scholarship

## Conferences

### - Invited / Keynote Lecture

2019: Invited Keynote lecture a SMCBS 2019 Workshop, 8-12 November 2019 (Poland)

2019: Invited Keynote lecture The Ninth International Workshop on Biosensors, 9<sup>th</sup>-11<sup>th</sup> October 2019, Erfoud, Morocco

2018: Invited Keynote lecture SMOBE 2018 (Summer meeting in Bioelectrochemistry 2016), 22-24 August 2018, Antwerpen, Belgium

2018: Invited Keynote lecture GEI 2018, 21-25 gennaio 2018, Sestriere, Italy

2017: Keynote lecture a SMCBS 2017 Workshop, 3-7 November 2017 (Poland)

2017: Invited XII Convegno Nazionale I.N.B.B., Roma 19-20 ottobre 2017

2016: XXVI Congresso della Divisione di Chimica Analitica della Società Chimica Italiana, 18-22 Settembre 2016, Giardini Naxos (Italia)

2016: 150th ICB Seminar on Micro and Nanosystems in Biochemical Analysis, Warsaw 12-14 October 2016, Electrochemical nanostructured biosensing platforms for miRNA detection, I. Palchetti;

2016: SMOBE 2016 (Summer meeting in Bioelectrochemistry 2016) Workshop, 16-19 August 2016, Antwerp (Netherland), invited lecture

2016: Corso di Aggiornamento ECM, Ritardanti di fiamma bromurati: approccio analitico integrato per la caratterizzazione degli eteri difenilici polibromurati (PBDE) nei mitili, 19 Maggio 2016, Perugia Italia.

2015: SMCBS 2015 Workshop, Pultusk (Poland)

2014: XXV NATIONAL CONGRESS OF ITALIAN CHEMISTRY SOCIETY, Rende (CS), September 2014, Italy

2013: SMCBS 2013 Workshop, Lochow (Poland)

2008: PROMOTE-ETV Workshop and Open Technical Meeting, (Barcelona, Spain, 20–22 February 2008), v. meeting report in Trends in Analytical Chemistry, 2008, 27, 387 - 2007:

2007: FoodBalt 2007: 2nd Baltic Conference on Food Science and Technology (Kaunas, Lituania, 13-14 June 2007)

- Organization

Scientific Committee: Convegno Bioanalitica 2019, Parma, 6 Dicembre 2019

Scientific Committee: Convegno Bioanalitica 2018, Bologna, 21 Settembre 2018;

Symposium organizers for the 69th ISE Annual Meeting, Bologna, 2-7 Settembre 2018 <http://annual69.ise-online.org/symposia.php#s3>

Scientific Committee: Giornate di Chimica Analitica in memoria del Prof. Francesco Dondi, Ferrara, 10-11 Luglio 2017;

Scientific Committee and Organizing Committee: Convegno Bioanalitica 2016, Chimica Bioanalitica e Nanotecnologie, Bologna, 4 Luglio 2016;

Chair, Scientific Committee and Organizing Committee: Convegno Bioanalitica 2015, Nuovi approcci bioanalitici per la determinazione di sostanze ad attività biologica, farmaceutica e nutraceutica, Firenze, 26 Giugno 2015;

Scientific Committee and Organizing Committee: Convegno Chimica Bioanalitica per la Sicurezza Ambientale ed Alimentare, Bologna 4 Luglio 2014;

Scientific Committee and Organizing Committee: Convegno Bio-Elettricità Microbica, Roma, 9 Novembre 2012;

Organizing Committee: XXIII Congresso Nazionale della divisione di Chimica Analitica della Società Chimica Italiana, Isola d'Elba, 16-20 Settembre 2012;

Organizing Committee: III Workshop Gruppo Sensori della Divisione di Chimica Analitica della Società Chimica Italiana, GS2010, Firenze, 26-28 Ottobre 2010

## REFeree ACTIVITY

Reviewer for the following international scientific journal: *Analytica Chimica Acta*, *Bioelectrochemistry*, *Biosensors and Bioelectronics*, *Colloids and Surfaces B: Biointerfaces*, *Electrochemistry Communications*, *Electrochimica Acta*, *Journal of Electroanalytical Chemistry*, *Materials Science and Engineering C*, *Mikrochimica Acta*, *Sensors & Actuators: B*, *Chemical*, *Science of the Total Environment*, *Talanta*, *Trends in Analytical Chemistry*, *Analytical Chemistry*, *Langmuir*, *Electroanalysis*, *Analyst*

Reviewer of Scientific projects for : Italian Ministry of Education, University and Research; Dutch National Funds for Scientific Research FWO; ERC; FONDECYT (Chilean National Science and Technology Commission).

## HIGHLY CITED PAPERS AND MENTIONS

- Palchetti I., Laschi S., Mascini M., 2005, *Analytica Chimica Acta*, 530, 1, 61-67: Top 50 Cited Articles of *Analytica Chimica Acta* (2005-2009)

- Palchetti I. & Mascini M., 2008, *Analyst*, 133, 846-854: *Analyst's* Top Ten most accessed articles published in 2008, (v. *Analyst*, 2009, 134, 15—17).

- F. Berti, L. Lozzi, I. Palchetti, S. Santucci, G. Marrazza, 2009, *Electrochimica Acta*, 54, 5035-5041, recensito in *Materials Today*, August 2009

- F. Bettazzi et al. *Analytical and Bioanalytical Chemistry* (2013), 405, pp.1025-34. Top 10 Cited Articles of ABC 2013.

- F. Bettazzi et al. *Analytical and Bioanalytical Chemistry* (2013), 405, pp.1025-34, mention on *Anal Bioanal Chem* Editorial DOI 10.1007/s00216-015-8808-x

- Voccia D., Bettazzi F., Fratini E., Berti D., Palchetti I., Improving impedimetric nucleic acid detection by using enzyme-decorated liposomes and nanostructured screen-printed electrodes, *Analytical and Bioanalytical Chemistry* 408 (26) (2016), 7271-7281: Selezionato come "Paper in Forefront" in *Analytical and Bioanalytical Chemistry* 408 (26) (2016).

**RECENT PUBLICATIONS (2008-2019)**

Bettazzi F., Palchetti I., Nanotoxicity assessment: A challenging application for cutting edge electroanalytical tools" (2019), *Analytica Chimica Acta*, 1072, 61, 74, DOI: 10.1016/j.aca.2019.04.035

Romero-Natale A., Palchetti I., Avelar M., Gonzalez-Vergara E., Garate-Morales J.L., Torres E., Spectrophotometric detection of glyphosate in water by complex formation between bis 5-phenyldipyrinate of nickel (II) and glyphosate (2019), *Water*, 11, 4, 719 DOI: 10.3390/w11040719

Ingrosso, C; Corricelli, M; Bettazzi, F; Konstantinidou, E; Bianco, GV; Depalo, N; Striccoli, M; Agostiano, A; Curri, ML; Palchetti, I Au nanoparticle in situ decorated RGO nanocomposites for highly sensitive electrochemical genosensors (2019), *Journal of Materials Chemistry B*, 7 (5), 768-777 DOI: 10.1039/c8tb02514b

Bettazzi F., Palchetti I. Photoelectrochemical genosensors for the determination of nucleic acid cancer biomarkers, (2018) *Current Opinion in Electrochemistry*, 12, 51-59

Porzio, E., Bettazzi, F., Mandrich, L., Del Giudice, I., Restaino, O.F., Laschi, S., Febbraio, F., De Luca, V., Borzacchiello, M.G., Carusone, T.M., Worek, F., Pisanti, A., Porcaro, P., Schiraldi, C., De Rosa, M., **Palchetti, I.**, Manco, G.; Innovative Biocatalysts as Tools to Detect and Inactivate Nerve Agents (2018) *Scientific Reports*, 8 (1), art. no. 13773, doi: 10.1038/s41598-018-31751-5

Bettazzi, F., Natale, A.R., A.R., Torres, E., **Palchetti, I.** Glyphosate determination by coupling an immuno-magnetic assay with electrochemical sensors (2018) *Sensors (Switzerland)*, 18 (9), art. no. 2965, doi: 10.3390/s18092965

Bettazzi, F., Voccia, D., Bencini, A., Giorgi, C., **Palchetti, I.**, Valtancoli, B., Conti, L. Optical and Electrochemical Study of Acridine-Based Polyaza Ligands for Anion Sensing (2018) *European Journal of Inorganic Chemistry*, 2018 (23), pp. 2675-2679. DOI: 10.1002/ejic.201800298

Bettazzi F., Laschi S., Voccia D., Gellini C., Pietraperzia G., Falciola L., Pifferi V., Testolin A., Ingrosso C., Placido T., Comparelli R., Curri M. L., **Palchetti I.**, Ascorbic acid-sensitized Au nanorods-functionalized nanostructured TiO<sub>2</sub> transparent electrodes for photoelectrochemical genosensing, *Electrochimica Acta* (2018), 276, 389-398, doi.org/10.1016/j.electacta.2018.04.146

Romanelli S., Bettazzi F., Martellini T., Shelver W. L., Cincinelli A., Galarini R., **Palchetti I.**, Evaluation of a Quechers-like extraction approach for the determination of PBDEs in mussels by Immuno-assay-based screening methods, *Talanta*, (2017), doi: 10.1016/j.talanta.2017.04.027

Ingrosso C., Bianco G. V., Pifferi V., Guffanti P., Petronella F., Comparelli R., Agostiano A, Striccoli M., **Palchetti I.**, Falciola L., Curri M. L., Bruno G., Enhanced Photoactivity and Conductivity in Transparent TiO<sub>2</sub> Nanocrystals/Graphene Hybrid Anode, *Journal of Materials Chemistry A* (2017)

Voccia D., Sosnowska M., Bettazzi F., Roscigno G., Fratini E., De Francis V., Condorelli G., Chitta R., D'Souza F., Kutner W., **Palchetti I.**, Direct determination of small RNAs using a biotinylated polythiophene impedimetric genosensor, *Biosensors and Bioelectronics* (2017) 87, 1012-1019

Poli D., Falsini M., Varano F., Betti M., Varani K., Vincenzi F., Pugliese A. M., Pedata F., Dal Ben D., Thomas A., **Palchetti I.**, Bettazzi F., Catarzi D., Colotta V., Imidazo[1,2-a]pyrazin-8-amine core for the design of new adenosine receptor antagonists: Structural exploration to target the A<sub>3</sub> and A<sub>2A</sub> subtypes, *European Journal of Medicinal Chemistry* (2017) 125, 611-628

**Palchetti Ilaria** New Trends in the Design of Enzyme-based Biosensors for Medical Applications, *Mini-Reviews in Medicinal Chemistry* (2016) 16, 1125-1133

Bettazzi F., Martellini T., Shelver W. L., Cincinelli A., Lanciotti E., **Palchetti I.**, Development of an Electrochemical Immunoassay for the Detection of Polybrominated Diphenyl Ethers (PBDEs), *Electroanalysis* (2016), 28 1817-1823

Voccia D., Bettazzi F., Fratini E., Berti D., **Palchetti I.**, Improving impedimetric nucleic acid detection by using enzyme-decorated liposomes and nanostructured screen-printed electrodes, *Analytical and Bioanalytical Chemistry* (2016) 408 (26),

7271-7281 (doi:10. 1007/ s00216-016-9593-x)

Baydemir G., Bettazzi F., **Palchetti I.**, Voccia D., Strategies for the development of an electrochemical bioassay for TNF-alpha detection by using a non-immunoglobulin bioreceptor, *Talanta* (2016) 151, 141-147

Kamal A., Cincinelli A., Martellini T., **Palchetti I.**, Bettazzi F., Naseem Malik R., Health and carcinogenic risk evaluation for cohorts exposed to PAHs in petrochemical workplaces in Rawalpindi city (Pakistan), *International Journal of Environmental Health Research*, (2016) 26, 37-57

G. Marrazza, M. Minunni, **I. Palchetti** To the memory of Marco Mascini: His contribution in the field of biosensors, *TrAC* (2016) 79, 2-8, doi: 10.1016/j.trac.2016.02.003

Strambini L.M., Longo A., Scarano S., Prescimone T., **Palchetti Ilaria**, Minunni M., Giannesi D., Barillaro G., Self-powered microneedle-based biosensors for pain-free high-accuracy measurement of glycaemia in interstitial fluid, *Biosensors and Bioelectronics* (2015) 66, 162–168

Centi S., Tombelli S., Puntoni M., Domenici C, Franek M., **Palchetti Ilaria**, Detection of biomarkers for inflammatory diseases by an electrochemical immunoassay: The case of neopterin, *Talanta* (2015) 134, 48–53

Hamidi-Asl E., Raof J.B., Hejazi M.S., Sharifi S., Golabi S.M., **Palchetti Ilaria**, Mascini M., A Genosensor for Point Mutation Detection of P53 Gene PCR Product Using Magnetic Particles *Electroanalysis* (2015) 27 (6), 1378-1386, doi: 10.1002/elan.201400660

Voccia D., Bettazzi F., Baydemir G., **Palchetti Ilaria**, Alkaline-Phosphatase-Based Nanostructure Assemblies for Electrochemical Detection of microRNAs, *Journal of Nanoscience and Nanotechnology* (2015) 15 (5), 3378-3384

Voccia D., **Palchetti Ilaria**, Photoelectrochemical Biosensors for Nucleic Acid Detection, *Journal of Nanoscience and Nanotechnology* (2015) 15 (5), 3320-3332

**Palchetti Ilaria**, Affinity biosensors for tumor-marker analysis, *Bioanalysis* (2014) 6 (24), 3417-3435

Tang X., Liang B., Yi T.Y., Manco G., **Palchetti Ilaria**, Liu A.H., Cell surface display of organophosphorus hydrolase for sensitive spectrophotometric detection of p-nitrophenol substituted organophosphates, *Enzyme and Microbial Technology* (2014) 55, 107-112

Hamidi-Asl E., **Palchetti Ilaria**, Hasheminejad E., Mascini M., A review on the electrochemical biosensors for determination of microRNAs, *Talanta* (2013) 115 , 74–83

Xia L., Liang B., Li L., Tang X.J., **Palchetti Ilaria**, Mascini M., Liu A.H., Direct energy conversion from xylose using xylose dehydrogenase surface displayed bacteria based enzymatic biofuel cell, *Biosensors and Bioelectronics* (2013) 44, 160-163

Liang B., Li L., Tang X.L., Wang H.W., Li F., **Palchetti Ilaria**, Mascini M. Liu A.H. Microbial surface display of glucose dehydrogenase for amperometric glucose biosensor, *Biosensors and Bioelectronics* (2013) 45, 19-24

Bettazzi F., Hamid-Asl E., Esposito C.L., Quintavalle C., Formisano N., Laschi S., Catuogno S., Iaboni M., Marrazza G., Mascini M., Cerchia L., De Franciscis V., Condorelli G., **Palchetti Ilaria**, Electrochemical detection of miRNA-222 by use of a magnetic bead-based bioassay, *Analytical and Bioanalytical Chemistry* (2013) 405, 1025-1034

Bettazzi F., Enayati L., Sánchez I.C., Motaghed R., Mascini M., **Palchetti Ilaria**, Electrochemical bioassay for the detection of TNF- $\alpha$  using magnetic beads and disposable screen-printed array of electrodes, *Bioanalysis* (2013) 5 (1), 11-19

Cincinelli A., Martellini T., Misuri L., Lanciotti E., Sweetman A., Laschi S., **Palchetti Ilaria**, PBDEs in Italian sewage sludge and environmental risk of using sewage sludge for land application, *Environmental Pollution* (2012) 161, 229-234

**Palchetti Ilaria**, Mascini M. Electrochemical nanomaterial-based nucleic acid

aptasensors, *Analytical and Bioanalytical Chemistry* (2012) 402 (10), 3103-3114

Voccia D., Laschi S., **Palchetti Ilaria**, Marrazza G., Mascini M., A Mercury-Free Sensor to Control Trace Metal Ionization Used to Treat Pathogens in Water Distribution Systems, *Electroanalysis* (2012) 24 (4), 882-888

Bettazzi F., Giorgi C., Laschi S., **Palchetti Ilaria**, Dipyrindine-Containing Macrocyclic Polyamine-Nafion-Modified Screen-Printed Carbon Electrode for Voltammetric Detection of Lead, *Electroanalysis* (2012) 24 (3), 591-599

Mascini M., **Palchetti Ilaria**, Tombelli S., Nucleic Acid and Peptide Aptamers: Fundamentals and Bioanalytical Aspects, *Angewandte Chemie-International Edition* (2012) 51 (6), 1316-1332

Laschi S., Miranda-Castro M., González-Fernández E., **Palchetti Ilaria**, Reymond F., Rossier J.S., Marrazza G., A new gravity-driven microfluidic-based electrochemical assay coupled to magnetic beads for nucleic acid detection, *Electrophoresis* (2010) 31, 3727-3736

Labuda J., Oliveira Brett A.M., Evtugyn G., Fojta M., Mascini M., Ozsoz M., **Palchetti Ilaria**, Paleček E., Wang J., Electrochemical nucleic acid-based biosensors: Concepts, terms, and methodology (IUPAC Technical Report), *Pure and Applied Chemistry* (2010) 82(5), 1161-1187

Centi S., Sanmartin L.B., Tombelli S., **Palchetti Ilaria**, Mascini M., Detection of C Reactive Protein (CRP) in Serum by an Electrochemical Aptamer-Based Sandwich Assay, *Electroanalysis* (2009) 21, 1309-1315.

Berti F., Lozzi L., **Palchetti Ilaria**, Santucci S., Marrazza G., Aligned carbon nanotube thin films for DNA electrochemical sensing, *Electrochimica Acta* (2009) 54, 5035-5041

Laschi S., **Palchetti Ilaria**, Marrazza G., Mascini M., Enzyme-amplified electrochemical hybridization assay based on PNA, LNA and DNA probe-modified micro-magnetic beads, *Bioelectrochemistry* (2009) 76 (1-2), 214-220

Camacho C., Chico B., Cao R., Matías J.C., Hernández J., **Palchetti Ilaria**, Simpson B.K., Mascini M., Villalonga R., Novel enzyme biosensor for hydrogen peroxide via supramolecular associations, *Biosensors and Bioelectronics* (2009) 24 (7), 2028-2033.

Berti F., Laschi S., **Palchetti Ilaria**, Rossier J., Reymond F., Mascini M., Marrazza G., Microfluidic-based Electrochemical Genosensor coupled to Magnetic Beads for Hybridization Detection, *Talanta* (2009) 77, 971-978

**Palchetti Ilaria**, Mascini M., Nucleic Acid Biosensors For Environmental Pollution Monitoring, *Analyst* (2008) 133 (7), 846-854

Bodoki E., Laschi S., **Palchetti Ilaria**, Săndulescu R., Mascini M., Electrochemical behavior of colchicine using graphite based screen-printed electrodes, *Talanta* (2008), 76 (2), 288-294.

Bettazzi F., Lucarelli F., **Palchetti Ilaria**, Berti F., Marrazza G., Mascini M., Disposable Electrochemical DNA-Array for PCR amplified Detection of Hazelnut Allergens in Foodstuff, *Analytica Chimica Acta* (2008) 614 (1), 93-102

Centi S., Messina G., Tombelli S., **Palchetti Ilaria**, Mascini M., Different approaches for the detection of thrombin by an electrochemical aptamer-based assay coupled to magnetic beads, *Biosensors and Bioelectronics* (2008) 23 (11), 1602-1609

**Palchetti Ilaria**, Mascini M., Electroanalytical Biosensors and their Potential for Food Pathogen and Toxin Detection, *Analytical and Bioanalytical Chemistry* (2008) 391(2), 455-471

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