CURRICULUM VITAE OF LAURA BORGESE

PERSONAL INFORMATION

Laura Borgese

Born in Brescia (BS), Italy 11/09/1979

Place of living: via Sabotino n. 31, CAP 25128, Brescia (Italy),

Italian Tax code BRGLRA79P51B157E

PRESENT POSITION

- 1/11/2016-31/10/2019 Assistant professor, Department of Mechanical and Industrial Engineering, University of Brescia;

EDUCATION

- 2017 Italian National Scientific Qualification for Associate Professor – recruitment competition 03/B2 Chemical Foundations of technologies;
    - Recruitment competition 03/B2 – Chemical Foundations of technologies – Associate Professor, Valid from 28/03/2017 to 28/03/2023;
    - Recruitment competition 03/A1 – Analytical Chemistry - Associate Professor, Valid from 06/09/2018 to 06/09/2024;
    - Recruitment competition 03/B1 – Fondamenti delle scienze chimiche e sistemi inorganici - Associate Professor, Valid from dal 07/08/2018 to 07/08/2024.
    - Recruitment competition 03/B1 – Foundations of Chemical Sciences and Inorganic sytems - Full Professor, Valid from 07/08/2018 to 07/08/2024.
- March 2011 PhD Materials for Engineering, University of Brescia, Disertation: Synthesis and Characterization of New Nanostructured Materials, Tutor: Prof. Laura E. Depero;
- 2005:2006 Post Lauream fellowship, University of Milan;
- 2005 Master Degree Industrial and Management Chemistry, magna cum laude, University of Milan, Thesis: Support effect on the activity of electrocatalyist materials for the Oxygen Evolution Reaction, Tutor: Prof. Sandra Rondinini;
- 2003 - Bachelor's Degree Industrial and Management Chemistry, magna cum laude, University of Milan, Thesis: Electrochemical Characterization of Innovative Materials for Gas Diffusion Electrodes application, Tutor: Prof. Alberto Vertova, in collaboration with the company DNTE-De Nora Tecnologie Elettrochimiche srl, Milan.
- 1998 Scientific High School Diploma, Liceo Scientifico A. Calini, Brescia

PROFESSIONAL TRAINING

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• 2016 - Training meeting "Metals, science and chemical profession", Order of Chemists of Brescia, 15 April 2016;

• 2016 - Training Days "Classification and management of waste in health facilities", University of Brescia 20-21 January 2016;

• 2015 -Certification course "Quality System and Quality Control in Chemical Laboratories", University of Parma, October-December 2015, Total 140 hours recognition 11 CFU;

• 2014 - Roadshow on indoor air quality, University of Bologna "Alma Mater", Bologna 4 July 2014;

• 2013- Member of the Order of Chemists of the Province of Brescia;

• 2012 - Safety Course in Chemical Laboratories, UNICHIM and GISAC, 7 February 2012

• 2011 - Radioprotection Training Course, ARPA Lombardia, Brescia 11 February 2011.

• 2008 - Study Day "Sampling, methods and problems for air, water and soil", GSIRS Milan 30th September 2008.

• 2005 - National qualification for the profession of Chemist, University of Milan, December 2015.

RESEARCH EXPERIENCES

RESEARCH Grants

• 01/01/2016 – 30/10/2017 University of Brescia

Title: Nanostructured functional coverage obtained by Atomic layer Deposition for biomedical applications;

• 01/11/2014 - 31/10/2015, the University of Brescia

Title: Chemical characterization of COSMOS-RICE inert materials;

• 01/11/2013 - 31/10/2014, the University of Brescia and the Interuniversity Consortium for Materials Science and Technology

Title: New materials for medicine, energy and aerospace through the use of integrated technologies based on the technique of deposition of atomic layers (Atomic Layer Deposition - ALD);

• 01/11/2012 - 31/10/2013, the University of Brescia

Title: New synthesis techniques for environmental applications;

• 01/11/2010 - 31/10/2012, the University of Brescia

Title: TRATTESI - Technology transfer of new synthesis techniques;

• 01/04/2007 - 07/11/2007, the University of Brescia

Title: Advanced synthesis and characterization of thin-layer magnetic systems;

RESEARCH Activities

Project Leader

2019 – Action Chair of CA 18130 ENFORCE-TXRF European Network for Chemical Elemental Anal-ysis by Total Reflection X-Ray Fluorescence Spectroscopy.

2015:2017 – Project Leader of ISO NP 20289: Chemical Analysis - Total Reflection X-Ray Fluorescence analysis of water samples, International Standard Organization, Technical Commit-tee 201 - Surface Chemical Analysis, ISO/TC 201;

2011:2016 VAMAS Project A10 C: Interlaboratory test for total reflection X-ray fluorescence (TXRF) analysis of environmental samples. The aim of the research is to evaluate the potentiality of total reflection X-ray fluorescence (TXRF) for the analysis of environmental and biological samples. New protocols and methods have been optimized and the first round robin test about TXRF analysis of water was organized with 13 participating laboratories;

Work Package Leader

2013:today Thin film oxides synthesis by ALD, Project funded by the Lombary Region: MALDIT-New materials for medicine, energy and aerospace through atomic layer deposition (ALD), scientific coordinator Prof. L.E. Depero, Prof. E. Bemporad;

2012:today New protocols for TXRF analysis of environmental and biological samples, Project funded by MiSE ICE CRUI: New instrument and protocols for environmental and health applications, scientific coordinator Prof. L.E. Depero;

2012:today Environmental impact study and design of related monitoring plan, Project funded by the Lombary Region: TECNOENERGY-Development of a model to evaluate the effects of BAP and BAP on energy saving and environmental impact, scientific coordinator Ing. N. Pedrali, Innowatio, Bergamo.

Responsible for the elemental chemical analysis

2013:2015 Life+ Project: COSMOS-RICE Colloidal silica medium to obtain safe inert from rice husk ash, scientific coordinator Prof. Elza Bontempi;

2012:2013 Project funded by Brescia Community Foundation: New materials from waste recycling, scientific coordinator Prof. Elza Bontempi;

2010:2012 Life+ Project: COSMOS-Colloidal silica medium to obtain safe inert, scientific coordinator Prof. Elza Bontempi;

2010:today NIH Project: Neurologic function in children exposed to ambient manganese, scientific coordinator Prof. Roberto Lucchini;

2009:2010 International cooperation Project Italy-India: Monitoring of heavy metals in environmental matrices; scientific coordinator Prof. Elza Bontempi;

2008:2011 European Project: PHIME Public Health Impact of long-term, low-level Mixed element Exposure, scientific coordinator Prof. Roberto Lucchini;

Responsible for the synthesis of thin films by ALD

2008:2009 GALILEO International Project Italy-France: Mechanical behaviour of nanostructured thin films by XRD, scientific coordinator Prof. Laura E. Depero

2007:2008 Project funded by the Lombardy Region: Assessment of new materials for pneumatic elettropilots, scientific coordinator Prof. Laura E. Depero.

Responsible of the electrochemical characterization of nanostructured materials

2009:2010 Project funded by the Lombardy Region: Use of PVD methods for product and process innovation in plastic applications to fashion and auto motive, scientific coordinator Prof. Laura E. Depero.

2005:2006 Industrial Project funded by DNTE-De Nora Tecnologie Elettrochimiche srl: Electrocatalytic materials for oxygen evolution reaction, scientific coordinator Prof. Sandra Rondinini;

TEACHING EXPERIENCE

- Professor of the "Elements of Chemistry" course for the Degree Course in Industrial Automation Engineering, Department of Mechanical and Industrial Engineering, for n. 54 hours S2 A.A: 17/18;
- Professor of the "General Chemistry" course for the Degree Course in Environmental Prevention and Workplace Techniques (TPALL), for n. 24 hours S1 A.A: 17/18;
- Professor of the "Elements of Chemistry" course for the Degree Course in Industrial Automation Engineering, Department of Mechanical and Industrial Engineering, for n. 54 hours S2 A.A: 16/17;
- Teaching Assistant, University of Brescia, Department of Civil Engineering, Land and Environment Architecture and Mathematics, Course of "Chemistry" - SSD CHIM / 07 (Degree in Civil Engineering, 2nd Semester) for n. 40 hours A.A. 15/16;
- Instructor about “TXRF for biological and environmental samples, activity of ISO / TC201 / WG3, VAMAS and Round Robin tests”. Instruction Session: Standardization, 16th International Conference on Total Reflection X-ray Fluorescence, Denver Colorado (USA), 3-5 August 2015;
- Coordinator of the thematic sessions of work - International Summer School - ALD Fundamentals and Applications, 6-10 July 2015;
- Teaching Assistant, University of Brescia, Department of Mechanical and Industrial Engineering, Course of "Spectroscopy Laboratory for Materials Analysis" - SSD CHIM / 07 (Bachelor's Degree in Mechanical Engineering and Materials, 2nd Semester) for N. 50 hours A.A. 14/15;
- Teaching Assistant, University of Brescia, Department of Mechanical and Industrial Engineering, Course of "Spectroscopy Laboratory for Materials Analysis" - SSD CHIM / 07 (Bachelor's Degree in Mechanical Engineering and Materials, 2nd Semester) for N. 50 hours A.A. 13/14;

- Teaching Assistant, University of Brescia, Department of Information Engineering, Course of "Elements of Chemistry" - SSD CHIM / 07 (Computer Engineering Degree Course, II Semester) for n. 49 hours A.A. 12/13;
- Teaching Assistant, University of Brescia, Faculty of Engineering, Course of "Elements of Chemistry" - SSD CHIM / 07 (Computer Engineering Degree Course, II Semester) for n. 47 hours A.A. 11/12;
- Teaching Assistant, University of Brescia, Faculty of Engineering, Course of "Elements of Chemistry" - SSD CHIM / 07 (Bachelor's Degree in Management Engineering, I Semester) for n. 30 hours A.A. 10/11;
- Teaching Assistant, University of Brescia, Faculty of Engineering, Course of "Chemistry-Elements of Chemistry" - SSD CHIM / 07 (Degree course in Civil Engineering, II Semester) for n. 14 hours A.A. 09/10;
- Teaching Assistant, University of Brescia, Faculty of Engineering, Course of "Introduction to basic disciplines - Chemistry" (Preparatory path for Engineering Studies) for n. 50 hours A.A. 08/09;
- 2013 - Guest Lecturer - Atomic Layer Deposition of Ultrathin Films & Applications, Corso Modulare Rivestimenti I Modulo: Rivestimenti PVD e CVD, Associazione Italiana di Metallurgia
- 2012 - Guest Lecturer - Introductory Electrochemistry, University of Brescia

STUDENTS SUPERVISION

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PhD Students in the Materials for Engineering Course of the University of Brescia

- 2017:2019 – Anne Wambui Mutahi (XXXII cycle):
- 2016:2018 – Valentina Caba (XXXI cycle): Polyurethane foam for hybrid postural and muscular rehabilitation devices;
- 2013: 2015 - Rogerta Dalipi (XXVIII cycle): Total reflection X-ray fluorescence analysis of foodstuffs.
- 2012:2015 - Mehwish Hassan (XXVII cycle): Synthesis and characterization of nanostructured materials;
- 2012:2014 - Fabjola Bilo (XXVII cycle): New procedures for TXRF analysis of environmental and biological samples;

Master Degree Students n. 10

Bachelor Degree Students n. 13

Stage of Foreign students

- Nadine Patterson e Richard Meggo, (2015) IAEA Fellowships Training, National Water Commission Bogue, Jamaica;
- Caesar Alcaniz (2014) Departamento de Formación en Centros de Trabajo CIPFP Vicente Blasco Ibañez, Valencia, Spain;
- Anne Wambui Mutahi (2014), University of Nairobi, Kenya;
- Wafaa Zaki (2011), University of Kirkuk, IRAQ;

GRANTS AND AWARDS

- Innovation Village Award 2019 – 1st prize - The prize was awarded for the innovative research project: BASALTO – nuovi materiali BAsati Su ALginati per la rimozione di particolaTO aerodisperso.
- Diploma al Merito della Ricerca 2018 - The prize was awarded in the category “Environment” for the research “Physico-chemical characterization of Soldera Case Basse wine integrated with sensory analysis. When Chemistry meets wine” in the framework of the Soldera Case Basse International Young Researchers Award 2018.
- Italcementi - Premio Marzotto 2018 -The prize was awarded for the project “Particulate Matter”.
- Oscar Masi for the Industrial Innovation 2017 award - The prize was awarded for the project: BASALTO: nuovi materiali BAsati Su ALginati per la rimozione di particolaTO aerodisperso.

- Italiadecide "Amministrazione, Cittadini, Imprese" 2017 award - The prize was awarded for the innovative research and demonstration for the project: BASALTO – nuovi materiali BAsati Su ALginati per la rimozione di particolaTO aerodisperso.
- 2014 – Member of the COST Action COST HERALD – Hooking Together European Research in Atomic Layer Deposition (COST MP 1402)
- 2013 – Participant to the 63rd Lindau Nobel Laureate Meeting - Chemistry, 30 June - 5 July 2013, Lindau, Germany. Qualified in a global competition among young scientists worldwide to participate.
- 2012: today - Italian expert appointed by UNI (Ente Nazionale Italiano di Unificazione) for participating to the Working Group 3 (WG3), "X-Ray Reflectivity and Total Reflection X-ray Fluorescence", of the International Standard Organization (ISO) Technical Committe 201 (TC201) "Surface Chemical Analysis" .
- 2012 - Italian delegate of UNI at the 21st Plenary Meeting of ISO/TC201, 25 - 27 October 2012, Tampa, Florida.
- 2008:2010 - PhD Scholarship, University of Brescia, Chemistry for Technologies Laboratory.
- 2007 - Graduate Fellowship, University of Brescia, Chemistry for Technologies Laboratory.
- 2005:2006 - Niccolò De Nora Fellowship, University of Milan, Department of Electrochemistry.

PEER REVIEW EXPERIENCE

Indexed journal

- 2017: Spectrochimica Acta B; Thin Solid Films; Journal of Physics and Chemistry of Solids; Materials Chemistry and Physics; Measurements; Journal of Atomic Absorption Spectrometry;
- 2016: Reviewer Journal of Atomic Absorption Spectrometry; International Journal of Hydrogen energy;
- 2015: Reviewer - International Journal of Hydrogen Energy;
- 2014: Reviewer - Arabian Journal of Chemistry; TALANTA; Spectroscopy Letters; Crystal Growth & Design;
- 2013: Reviewer - Chemical Physics Letters;

International competitive project

- 2016: Qualified expert for the review of proposals in the Italian call “Programma di Cooperazione V-A Italia-Slovenia 2014-2020; area di competenza Area 1: OT1 - Rafforzare la ricerca, lo sviluppo tecnologico e l'innovazione”;
- 2013: Reviewer for proposal of “The grant Agency of Kazakhstan Republic of TWAS - The Academy of Science for the Developing World”.

OTHER PROFESSIONAL EXPERIENCES

- 2018: Member of the Security Commission and operational representative of the Department of Mechanical and Industrial Engineering;
- 2017: Co-chair and organizer of the International Conference on Total Reflection X-ray fluorescence analysis and related methods – TXRF2017 (TXRF2017.unibs.it);
- 2015: Course Leader of the Summer school "Atomic layer Deposition: Method and applications"
- 2014: today - Chief Executive Officer and Co-Founder of SMART SOLUTIONS srl, Spin off Company of the University of Brescia.
- 2013:today - Member of the Italian National Professional Order of Chemists
- 2011:today - Operational representative for the security of the Chemistry for Technologies Laboratory, University of Brescia
- 2011 - Member of the Committee for International Year of Chemistry, University of Brescia

- 2010:today - Co-founder and treasurer - Association “VAMAS Italia”, “VAMAS supports world trade in products dependent on advanced materials technologies, through International collaborative projects aimed at providing the technical basis for harmonized measurements, testing, specifications, and standards”

COLLABORATIONS

National academic collaborations

• UNIVERSITY OF BRESCIA: L.E Depero, E. Bontempi, P. Bergese, I. Alessandri, V. Ferrari, M. Ferrari, R. Lucchini, M. Presta, D. Finazzi, S. Ingrassia, A. Gianoncelli, I. Concina, A. Vomiero, C. Baratto, E. Comini, M.Volta;

• UNIVERSITY OF MILANO: Vertova, S. Rondinini;

• UNIVERSITY ROMA 3: E. Bemporad;

• CATHOLIC UNIVERSITY OF SACRED HEART: G. Gerosa, A. Finco, M. Chiesa

• POLITECNICO OF MILANO: M.V. Boniardi, A. Casaroli.

International academic collaborations

• US

JAPAN: K. Tsuji, Osaka City University, Osaka, Japan;

• USA: N. Zimmermann, Purdue University; D. J. Smith, University of California; Martina Shmeling, Loyola University of Chicago;

• SPAIN: R. Fernández-Ruiz, Universidad Autónoma de Madrid; E. Margui, University of Girona;

• AUSTRIA: A. Karydas, International Atomic Europen Agency; C. Streli, Peter Wobrausheck, Atominstitut Wien;

• BELGIUM: P. Vandenabeele, Ghent University;

• KENYA: M. Gatari, University of Nairobi; K. D. Shepherd, E. K. Towett, ICRAF;

• CHILE: L. Bennun, Universidad de Concepción;

• ARGENTINA: G. Custo, C. Vazquez, Centro Atómico Constituyentes.

• CROATIA: J. Jablan, University of Zagreb;

• SLOVENIA: M. Necemer, University of Ljubljana.

External collaborations

• IRCCS Foundation, Milano, Italy: L. Vigna;

• Bruker Nano GmbH, Berlin, Germany: A. Gross, H. Stosnach;

• GNR SRL, Agrate Conturbia, Italy: L. Pisani, L. Seralessandri, G. Siviero, A. Cinosi;

• Rigaku Corporation, Osaka, Japan: T. Yamada;

• JISC, Japan: T. Fujimoto,

• CSMT Gestione scarl, Brescia, Italy: P. Colombi, A. Marini;

• IZSVe, Padova, Italy: R. Piro;

• IZSLER, Brescia, Italy: E. Sangiorgi;

• ARPA Lombardia, Brescia, Italy: M. Volante, M. Bernardello;

• ENEA, Casaccia (RM), Italy: C. Zoani, G. Zappa;

• Bruno Kessler Foundation, Povo (TN), Italy: G. Pepponi

• ELETTRA Sincrotrone Trieste: Diane Eichert.

PATENTS

BONTEMPI, E., **BORGESE**, L., DEPERO, L. E., ZACCO, A., HOFER, H., 2009. WASTE TREATMENT METHOD, International Patent Application No. PCT/EP2010/007802

BONTEMPI, E., **BORGESE**, L., DEPERO, L. E., ZACCO, A.,LUCCHINI, R., METODO PER L’ANALISI DI CAMPIONI –

METHOD FOR THE ANALYSIS OF SAMPLES, International Patent Application No. PCT/IT2008/000458.

BONTEMPI, E., GIANONCELLI A., BORGESE, L., DEPERO, L. E., SESANA G., METODO PER LA DECONTAMINAZIONE DI SUBSTRATI INQUINATI DA SOSTANZE ORGANICHE ED ELEMENTI PESANTI, N 0001419351.

ADDARIO GIANCARLO; BARDIANI ITALO; MARIANI MANUEL; BRISOTTO MARIANGIOLA; BORGESE LAURA, COATED INSERT FOR FOOD EXTRUDER, WO2017021407.

PUBLICATIONS

Citation overview

Academic age (years): 11

Scopus Citation number: 1036	H-index: 20

Peer Reviewed publications

Anno	Autori	Titolo	Rivista
2019	Caba, V., Borgese, L.Email Author, Agnelli, S., Depero, L.E.	A green and simple process to develop conductive polyurethane foams for biomedical applications	International Journal of Polymeric Materials and Polymeric BiomaterialsVolume 68, Issue 1-3, 11 February 2019, Pages 126-133
2019	Bilo, F. Zanoletti, A., Borgese, L., Depero, L.E., Bontempi, E	Chemical analysis of air particulate matter trapped by a porous material, synthesized from silica fume and sodium alginate	Journal of Nanomaterials Open Access Volume 2019, 2019, Article number 1732196
2018	Dalipi, R., Berneri, R. Curatolo, M., Borgese, L., Depero, L.E., Sangiorgi, E.	Total reflection X-ray fluorescence used to distinguish mechanically separated from non-mechanically separated meat	Spectrochimica Acta - Part B Atomic Spectroscopy Volume 148, October 2018, Pages 16-22
2018	Zanoletti, A., Bilo, F., Borgese, L., Depero, L.E., Fahimi, A., Ponti, J., Valsesia, A., Spina, R.L., Montini, T., Bontempi, E.	SUNSPACE, A porous material to reduce air Particulate Matter (PM)	Frontiers in ChemistryOpen Access Volume 6, Issue OCT, 1 October 2018, Article number 534
2018	Butler, L., Gennings, C., Peli, M., Borgese, L., Placidi, D., Zimmerman, N., Hsu, H.-H.L., Coull, B.A., Wright, R.O., Smith, D.R., Lucchini, R.G., Claus Henn, B.	Assessing the contributions of metals in environmental media to exposure biomarkers in a region of ferroalloy industry	Journal of Exposure Science and Environmental Epidemiology
2018	Bilo F., Borgese L., Wambui A., Assi A, Zacco A., Federici S., Eichert D.M., Tsuji K., Lucchini R.G., Placidi, D., Bontempi, E., Depero, L.E.	Comparison of multiple X-ray fluorescence techniques for elemental analysis of particulate matter collected on air filters	Journal of Aerosol Science, Vol 122 pp 1-10

2018	Borgese L., Dalipi R., Riboldi A., Bilo F., Zacco A., Federici S., Bettinelli M., Bontempi E., Depero L. E	Comprehensive approach to the validation of the standard method for total reflection X-ray fluorescence analysis of water.	TALANTA, vol. 181, p. 165-171, ISSN: 0039-9140, doi: 10.1016/j.talanta.2017.12.087
2018	R Dalipi, L Borgese, K Tsuji, E Bontempi, LE Depero	Elemental analysis of teas, herbs and their infusions by means of total reflection X-ray fluorescence.	Journal of Food Composition and Analysis, Vol. 67, p. 128-134, ISSN: 0889-1575, doi: 10.1016/j.jfca.2018.01.010
2018	L. Borgese, L.E. Depero	Spectrochimica Acta Part B Virtual Special Issue on the 17th International Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods	Spectrochimica Acta - Part B Atomic Spectroscopy Volume 139, January 2018, Pages 83-84
2017	Olga B. Popovicheva, Natalia K. Shonija, Natalia Persiantseva, Mikhail Timofeev, Evangelia Diapouli, Konstantinos Eleftheriadis, Laura Borgese, Xuan A. Nguyen	Aerosol Pollutants during Agricultural Biomass Burning: A Case Study in Ba Vi Region in Hanoi, Vietnam	Aerosol and Air Quality Research, 17: 2762–2779, 2017 ISSN: 1680-8584 print / 2071-1409 online doi: 10.4209/aaqr.2017.03.0111
2017	Fabjola Bilo, Laura Borgese, Rogerta Dalipi, Annalisa Zacco, Stefania Federici, Matteo Masperi, Paolo Leonesio, Elza Bontempi, Laura E. Depero	Elemental analysis of tree leaves by total reflection X-ray fluorescence: New approaches for air quality monitoring	Chemosphere 178 (2017) 504e512
2017	Rogerta Dalipi, Eva Marguí, Laura Borgese, Laura E. Depero	Multi-element analysis of vegetal foodstuff by means of low power total reflection X-ray fluorescence (TXRF) spectrometry	Food Chemistry 218 (2017) 348–355
2017	Alessandra Zanoletti, Stefania Federici, Laura Borgese, Paolo Bergese, Matteo Ferroni, Laura Eleonora Depero, Elza Bontempi	Embodied energy as key parameter for sustainable materials selection: The case of reusing coal fly ash for removing anionic surfactants	Journal of Cleaner Production 141 (2017) 230e236
2017	R. Dalipi, L. Borgese, E. Margui, E. sangiorgi, L. E. depero	Total reflection X-ray fluorescence technique for multi-elemental analysis of food	Spectroscopy Europe Vol 29 no. 1 February/March 2017
2017	Mehwish Hassan, Laura Borgese, Giuditta Montesanti, Edoardo Bemporad, Gianmario Cesarini, Roberto Li Voti, Laura E. Depero	Atomic layer deposition of semiconductor oxides on electric sail tethers	Thin Solid Films 621 (2017) 195–201

2017	Benassi, L., Dalipi, R., Consigli, V., (...), Bingham, P.A., Bontempi, E.	Integrated management of ash from industrial and domestic combustion: a new sustainable approach for reducing greenhouse gas emissions from energy conversion	Environmental Science and Pollution Research 24(17), pp. 14834-14846
2017	Rodella, N., Bosio, A., Dalipi, R., (...), Depero, L.E., Bontempi, E.	Waste silica sources as heavy metal stabilizers for municipal solid waste incineration fly ash	Arabian Journal of Chemistry 10, pp. S3676-S3681 Open Access
2017	Vassalini, I., Borgese, L., Mariz, M., (...), Amendola, V., Alessandri, I.	Enhanced Electrocatalytic Oxygen Evolution in Au–Fe Nanoalloys	Angewandte Chemie - International Edition 56(23), pp. 6589-6593
2016	Dalipi, R.a, Marguí, E.b , Borgese, L.a, Bilo, F.a, Depero, L.E.a	Analytical performance of benchtop total reflection X-ray fluorescence instrumentation for multielemental analysis of wine samples (Article)	Spectrochimica Acta - Part B Atomic Spectroscopy Volume 120, 1 June 2016, Pages 37-43
2016	Benassi, L, Pasquali, M, Zanoletti, A., Dalipi, R., Borgese, L., Depero, L.E., Vassura, I., Quina, M.J., Bontempi, E.	Chemical Stabilization of Municipal Solid Waste Incineration Fly Ash without Any Commercial Chemicals: First Pilot-Plant Scaling Up	ACS Sustainable Chemistry and Engineering Volume 4, Issue 10, 3 October 2016, Pages 5561-5569
2016	Rodella, N., Pasquali, M., Zacco, A., Bilo, F.a, Borgese, L., Bontempi, N., Tomasoni, G., Depero, L.E., Bontempi, E.	Beyond waste: new sustainable fillers from fly ashes stabilization, obtained by low cost raw materials	Heliyon Volume 2, Issue 9, 1 September 2016, Article number e0016
2016	R Dalipi, L Borgese, A Casaroli, M Boniardi, U Fittschen, K Tsuji, LE Depero	Study of metal release from stainless steels in simulated food contact by means of total reflection X-ray fluorescence	Journal of Food Engineering, 173, pp. 85-91
2016	Guarienti, M., Cardozo, S.M., Borgese, L., Lira, G.R., Depero, L.E., Bontempi, E., Presta, M.	COSMOS-rice technology abrogates the biotoxic effects of municipal solid waste incinerator residues (Article)	Environmental Pollution Volume 214, 1 July 2016, Pages 713-721
2016	Borgese, L., Bilo, F., Zacco, A., Bontempi, E., Pasquali, M., Federici, S., Prost, J., Rauwolf, M., Turyanskaya A, Streli, C., Kregsamer, P.,	ALD to prevent metal transfer from implants (Conference Paper)	ECS Transactions Volume 75, Issue 6, 2016, Pages 167-175

	Wobrauschek, P., Depero, L.E.		
2016	Riccardo Milan, Mehwish Hassan, Gurpreet Singh Selopal, Laura Borgese, Marta Maria Natile, Laura E Depero, Giorgio Sberveglieri, Isabella Concina	A player often neglected: electrochemical comprehensive analysis of counter electrodes for quantum dot solar cells	ACS applied materials & interfaces
2015	Bilo F, Borgese L, Zacco A, Lazo P, Zoani C,	Total Reflection X-Ray Fluorescence Spectroscopy to Evaluate Heavy Metals Accumulation in Legumes.	J Anal Bioanal Tech 7: 292. doi:10.4172/2155-9872.1000292
2015	Fabjola Bilo, Laura Borgese, Josef Prost, Mirjam Rauwolf, Anna Turyanskaya, Peter Wobrauschek, Peter Kregsamer, Christina Streli, Ugo Pazzaglia, Laura E Depero	Atomic layer deposition to prevent metal transfer from implants: An X-ray fluorescence study	Applied Surface Science, 359, pp. 215-220
2015	Shobhana Ramteke, Khageshwar Singh Patel, Yogita Nayak, Nitin Kumar Jaiswal, Vikash Kumar Jain, Laura Borgese, Alessandra Gianoncelli, Elza Bontempi	Contamination of Heavy Metals and Nutrients in Sediment, Sludge and Sewage of India	International Journal of Geosciences
2015	D. Barreca, G. Carraro , A. Gasparotto , C. Maccato , M. E. A. Warwick , K. Kaunisto, C. Sada , S. Turner , Y. Gönüllü , T. P. Ruoko , L. Borgese , E. Bontempi , G. Van Tendeloo , H. Lemmetyinen , S. Mathur:	Fe2O3 –TiO2 Nano-heterostructure Photoanodes for Highly Efficient Solar Water Oxidation	Advanced materials Interfaces
2015	Borgese, L., Bilo, F., Dalipi, R., Bontempi, E., Depero, L.E.	Total reflection X-ray fluorescence as a tool for food screening	Spectrochimica Acta - Part B Atomic Spectroscopy
2015	Dalipi, R., Borgese, L., Zacco, A., Tsuji, K., Sangiorgi, E., Piro, R., Bontempi, E., Depero, L.E.	Determination of trace elements in Italian wines by means of total reflection X-ray fluorescence spectroscopy	International Journal of Environmental Analytical Chemistry
2015	Laura Benassi, Federica Franchi, Daniele Catina, Flavio Cioffi, Nicola Rodella, Laura Borgese, Michela Pasquali, Laura E Depero, Elza Bontempi	Rice Husk Ash to Stabilize Heavy Metals Contained in Municipal Solid Waste Incineration Fly Ash: First Results by Applying New Pre-treatment Technology	Materials
2015	Khageshwar Singh Patel, Bharat Lal Sahu, Shobhana	Contamination of Arsenic and Other Heavy Metals in Rhizospheric Soil	American Journal of Analytical Chemistry

	Ramteke, Nitin Kumar Jaiswal, Laura Borgese, Alessandra Gianoncelli, Elza Bontempi		
2015	Benassi, L., Bosio, A., Dalipi, R., Borgese, L., Rodella, N., Pasquali, M., Depero, L.E., Bergese, P., Bontempi, E.	Comparison between rice husk ash grown in different regions for stabilizing fly ash from a solid waste incinerator	Journal of Environmental Management
2015	Kumar, R., Baratto, C., Faglia, G., Sberveglieri, G., Bontempi, E., Borgese, L.	Tailoring the textured surface of porous nanostructured NiO thin films for the detection of pollutant gases	Thin Solid Films
2015	Bilo, F., Moscoso, S., Borgese, L., Delbarba, M.V., Zacco, A., Bosio, A., Federici, S., Guarienti, M., Presta, M., Bontempi, E., Depero, L.E.	Total reflection X-Ray fluorescence spectroscopy to study Pb and Zn accumulation in zebrafish embryos	X-Ray Spectrometry, 44(3), pp. 124-128
2015	Bilo, F., Lodolo, M., Borgese, L., Bosio, A., Benassi, L., Depero, L.E., Bontempi, E.	Evaluation of heavy metals contamination from environment to food matrix by TXRF: The case of rice and rice husk	Journal of Chemistry
2015	Fabjola Bilo, Laura Borgese, Annalisa Zacco, Pranvera Lazo, Claudia Zoani, Giovanna Zappa, Elza Bontempi and Laura E Depero	Total Reflection X-Ray Fluorescence Spectroscopy to Evaluate Heavy Metals Accumulation in Legumes.	Journal of Analytical and Bioanalytical techniques
2014	Lucchini, R.G., Guazzetti, S., Zoni, S., Benedetti, C., Fedrighi, C., Peli, M., Donna, F., Bontempi, E., Borgese, L., Micheletti, S., Ferri, R., Marchetti, S., Smith, D.R.	Neurofunctional dopaminergic impairment in elderly after lifetime exposure to manganese	NeuroToxicology
2014	Borgese, L., Bilo, F., Tsuji, K., Fernández-Ruiz, R., Margui, E., Streli, C., Pepponi, G., Stosnach, H., Yamada, T., Vandenabeele, P., Maina, D.M., Gatari, M., Shepherd, K.D., Towett, E.K., Bennun, L., Custo, G., Vasquez, C., Depero, L.E.	First Total Reflection X-Ray Fluorescence round-robin test of water samples: Preliminary results	Spectrochimica Acta - Part B Atomic Spectroscopy
2014	Bosio, A., Zacco, A., Borgese, L., Rodella, N., Colombi, P., Benassi, L., Depero, L.E., Bontempi, E.	A sustainable technology for Pb and Zn stabilization based on the use of only waste materials: A green chemistry approach to avoid chemicals	Chemical Engineering Journal

		and promote CO2 sequestration	
2014	Guarienti, M., Gianoncelli, A., Bontempi, E., Moscoso Cardozo, S., Borgese, L., Zizioli, D., Mitola, S., Depero, L.E., Presta, M.	Biosafe inertization of municipal solid waste incinerator residues by COSMOS technology	Journal of Hazardous Materials
2014	Lucchini, R.G., Guazzetti, S., Zoni, S., Benedetti, C., Fedrighi, C., Peli, M., Donna, F., Bontempi, E., Borgese, L., Micheletti, S., Ferri, R., Marchetti, S., Smith, D.R.	Neurofunctional dopaminergic impairment in elderly after lifetime exposure to manganese	NeuroToxicology
2014	Rodella, N., Bosio, A., Dalipi, R., Zacco, A., Borgese, L., Depero, L.E., Bontempi, E.	Waste silica sources as heavy metal stabilizers for municipal solid waste incineration fly ash	Arabian Journal of Chemistry
2014	Zacco, A., Borgese, L., Gianoncelli, A., Struis, R.P.W.J., Depero, L.E., Bontempi, E.	Review of fly ash inertisation treatments and recycling	Environmental Chemistry Letters
2014	Bilo, F., Borgese, L., Cazzago, D., Zacco, A., Bontempi, E., Guarneri, R., Bernardello, M., Attuati, S., Lazo, P., Depero, L.E.	TXRF analysis of soils and sediments to assess environmental contamination	Environmental Science and Pollution Research
2014	Rodella, N., Bosio, A., Zacco, A., Borgese, L., Pasquali, M., Dalipi, R., Depero, L.E., Patel, V., Bingham, P.A., Bontempi, E.	Arsenic stabilization in coal fly ash through the employment of waste materials	Journal of Environmental Chemical Engineering
2014	Bosio, A., Gianoncelli, A., Zacco, A., Borgese, L., Rodella, N., Zanotti, D., Depero, L.E., Siviero, G., Cinosi, A., Bingham, P.A., Bontempi, E.	A new nanotechnology of fly ash inertization based on the use of silica gel extracted from rice husk ash and microwave treatment	Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanoengineering and Nanosystems
2013	Colombi, P., Bergese, P., Bontempi, E., Borgese, L., Federici, S., Keller, S.S., Boisen, A., Depero, L.E.	Sensitive determination of the Young's modulus of thin films by polymeric microcantilevers	Measurement Science and Technology
2013	Bosio, A., Rodella, N., Gianoncelli, A., Zacco, A., Borgese, L., Depero, L.E., Bingham, P.A., Bontempi, E.	A new method to inertize incinerator toxic fly ash with silica from rice husk ash	Environmental Chemistry Letters
2013	Struis, R.P.W.J., Pasquali, M., Borgese, L., Gianoncelli, A., Gelfi, M., Colombi, P., Thiaudière, D., Depero, L.E., Rizzo, G., Bontempi, E.	Inertisation of heavy metals in municipal solid waste incineration fly ash by means of colloidal silica-a synchrotron X-ray diffraction and absorption study	RSC Advances

2013	Borgese, L., Federici, S., Zacco, A., Gianoncelli, A., Rizzo, L., Smith, D.R., Donna, F., Lucchini, R., Depero, L.E., Bontempi, E.	Metal fractionation in soils and assessment of environmental contamination in Vallecamonica, Italy	Environmental Science and Pollution Research
2012	Galstyan, V., Comini, E., Faglia, G., Vomiero, A., Borgese, L., Bontempi, E., Sberveglieri, G.	Fabrication and investigation of gas sensing properties of Nb-doped TiO 2 nanotubular arrays	Nanotechnology
2012	Hazra, S.K., Borgese, L., Federici, S., Bontempi, E., Ferrari, M., Ferrari, V., Plaisier, J.R., Santarelli, X., Zerauschek, G., Lausi, A., Depero, L.E.	Electrical resistivity of Ti-Zn mixed oxide thin films deposited by atomic layer deposition	Thin Solid Films
2012	Ingrassia, R., Lanzillotta, A., Sarnico, I., Benarese, M., Blasi, F., Borgese, L., Bilo, F., Depero, L., Chiarugi, A., Spano, P.F., Pizzi, M.	1B/(-)IRE DMT1 expression during brain ischemia contributes to cell death mediated by NF-κB/RelA acetylation at Lys310	PLoS ONE
2012	Baratto, C., Ponzoni, A., Ferroni, M., Borgese, L., Bontempi, E., Sberveglieri, G.	Sputtering deposition of amorphous cadmium stannate as transparent conducting oxide	Thin Solid Films
2012	Borgese, L., Salmistraro, M., Gianoncelli, A., Zacco, A., Lucchini, R., Zimmerman, N., Pisani, L., Siviero, G., Depero, L.E., Bontempi, E.	Airborne particulate matter (PM) filter analysis and modeling by total reflection X-ray fluorescence (TXRF) and X-ray standing wave (XSW)	Talanta
2012	Borgese, L., Gelfi, M., Bontempi, E., Goudeau, P., Geandier, G., Thiaudière, D., Depero, L.E.	Young modulus and Poisson ratio measurements of TiO 2 thin films deposited with Atomic Layer Deposition	Surface and Coatings Technology 206(8-9), pp. 2459-2463
2011	Borgese, L., Bontempi, E., Depero, L.E., Colombi, P., Alessandri, I.	Tailoring phase and composition at the nanoscale: Atomic layer deposition of Zn-Ti-O thin films	CrystEngComm
2011	Kozma, E., Concina, I., Braga, A., Borgese, L., Depero, L.E., Vomiero, A., Sberveglieri, G., Catellani, M.	Metal-free organic sensitizers with a sterically hindered thiophene unit for efficient dye-sensitized solar cells	Journal of Materials Chemistry
2011	Sartore, L., Barbaglio, M., Borgese, L., Bontempi, E.	Polymer-grafted QCM chemical sensor and application to heavy metal ions real time detection	Sensors and Actuators, B: Chemical
2011	Borgese, L., Bontempi, E., Gelfi, M., Depero, L.E., Goudeau, P., Geandier, G., Thiaudire, D.	Microstructure and elastic properties of atomic layer deposited TiO 2 anatase thin films	Acta Materialia *59(7), (2011) 2891-2900*

2011	Borgese, L., Zacco, A., Pal, S., Bontempi, E., Lucchini, R., Zimmerman, N., Depero, L.E.	A new non-destructive method for chemical analysis of particulate matter filters: The case of manganese air pollution in Vallecamonica (Italy)	Talanta
2011	Naldoni, A., Minguzzi, A., Vertova, A., Santo, V.D., Borgese, L., Bianchi, C.L.	Electrochemically assisted deposition on TiO2 scaffold for Tissue Engineering: An apatite bio-inspired crystallization pathway	Journal of Materials Chemistry
2010	Bontempi, E., Zacco, A., Borgese, L., Gianoncelli, A., Ardesi, R., Depero, L.E.	A new method for municipal solid waste incinerator (MSWI) fly ash inertization, based on colloidal silica	Journal of Environmental Monitoring
2010	Borgese, L., Zanola, P., Bontempi, E., Rossi, D., Depero, L.E.	In situ XRD characterization of hydrogen desorption from electrochemically deposited Pd coating	Journal of Coatings Technology Research
2010	Borgese, L., Zacco, A., Bontempi, E., Pellegatta, M., Vigna, L., Patrini, L., Riboldi, L., Rubino, F.M., Depero, L.E.	Use of total reflection X-ray fluorescence (TXRF) for the evaluation of heavy metal poisoning due to the improper use of a traditional ayurvedic drug	Journal of Pharmaceutical and Biomedical Analysis
2010	Bontempi, E., Zacco, A., Benedetti, D., Borgese, L., Colombi, P., Stosnach, H., Finzi, G., Apostoli, P., Buttini, P., Depero, L.E.	Total reflection X-ray fluorescence (TXRF) for direct analysis of aerosol particle samples	Environmental Technology
2009	Borgese, L., Zacco, A., Bontempi, E., Colombi, P., Bertuzzi, R., Ferretti, E., Tenini, S., Depero, L.E.	Total reflection of x-ray fluorescence (TXRF): A mature technique for environmental chemical nanoscale metrology	Measurement Science and Technology
2009	Ardizzone, S., Bianchi, C.L., Borgese, L., Cappelletti, G., Locatelli, C., Minguzzi, A., Rondinini, S., Vertova, A., Ricci, P.C., Cannas, C., Musinu, A.	Physico-chemical characterization of IrO2-SnO2 sol-gel nanopowders for electrochemical applications	Journal of Applied Electrochemistry
2009	Lucchini ,R., Albini, E., Bontempi, E., Zimmerman, N., Parrinello, G., Zoni, S., Micheletti, S., Ferri, R., Donna, F., Zacco, A., Borgese, L., Nardoni, C., Tagliani, F.,	Neurobehavioral Effects of Manganese Exposure Through Inhalation and Dietary Intake in Italian Adolescents, Epidemiology 2009 20 S256	Epidemiology

2008	Bontempi, E., Benedetti, D., Massardi, A., Zacco, A., Borgese, L., Depero, L.E.	Laboratory two-dimensional X-ray microdiffraction technique: A support for authentication of an unknown Ghirlandaio painting	Applied Physics A: Materials Science and Processing
2008	Vertova, A., Borgese, L., Cappelletti, G., Locatelli, C., Minguzzi, A., Pezzoni, C., Rondinini, S.	New electrocatalytic materials based on mixed metal oxides: Electrochemical quartz crystal microbalance characterization	Journal of Applied Electrochemistry

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