

Prof. Benedetto Bozzini (BB)

1) Research Experience and Academic Career

- He was born on 01.11.1964 in Milan, Italy.
- He graduated in Nuclear Engineering from the Politecnico di Milano with a grade of (100/100) in 1989.
- From 1989 to 1991 he was graduate research student at the Nuclear Engineering Department, Politecnico di Milano.
- From 1991 to 1994 he was a PhD student in Electrochemical Engineering at the Physical Chemistry, Electrochemistry and Metallurgy Department, Politecnico di Milano.
- From 1994 to 1995 he was a post-doctoral student at the National Physical Laboratory, Materials Metrology Division (Teddington, UK), under the supervision of Dr. M.P. Seah.
- From 1995 to 1998 he was a research contractor for the Physical Chemistry, Electrochemistry and Metallurgy Department, Politecnico di Milano.
- From 1998 to 2002 he has been Associate Professor for the Department of Innovation Engineering, University of Salento, Lecce, Italy.
- From 2002 to 2019 he has been Full Professor for the Department of Innovation Engineering, University of Salento, Lecce, Italy.
- From 2008 to 2012 he served as Vice-Dean of the Faculty of Industrial Engineering.
- Since 2019 he has been Full Professor for the Department of Energy, Politecnico di Milano, Milan, Italy. The Chair at Politecnico di Milano has been funded by the Department of Excellence scheme.

2) Research Activity

BB's research interests cover the intersection of two broad, generally poorly-linked areas, known as "Materials for Electrochemical Energetics" and "*operando* Spectroelectrochemistry"^{*}. These concern, on the one hand pushing our capabilities to fabricate functional materials for novel electrical energy storage systems, and on the other hand gaining a molecular-level understanding of the processes underlying the operation and durability of the different active components of devices such as batteries, fuel cells and supercapacitors.

Additional research topics he covers, include the development of microspectroscopic methods and electrochemical devices for specialized spectroscopic studies and the mathematical modelling of electrochemical phase-formation processes. As detailed below, it is worth noting here that BB developed a range of original *operando* linear and non-linear spectroelectrochemical and microspectroelectrochemical approaches, regarding both the wavelength range from IR to soft X-rays, and its related theoretical framework, to follow out-of-equilibrium electrochemical reacting interfaces with active phase-formation processes. This approach provides a unique way of gaining access to the dynamics of battery components as they behave in real life. The systems addressed include, in particular, Solid-Oxide Fuel Cells (SOFC¹), Proton-Exchange Membrane Fuel Cells (PEMFC), Zn-air Batteries (ZAB) and Fuel Cells (ZAFC), but the methodology can be extended to all types of batteries.

BB has published **276 scientific papers** in renowned International journals of relatively high impact, including, *inter alia*: Analytical Chemistry, ACS Applied Materials & Interfaces, ChemElectroChem, ChemSusChem, Corrosion Science, Electrochemistry Communications, Electrochimica Acta, International Journal of Hydrogen Energy, Journal of Materials Chemistry A,

¹ For the readers' perusal, an acronym list is reported at the end of this CV.

Journal of Physical Chemistry C, Journal of Power Sources, Nano Research, Physical Chemistry Chemical Physics, Scientific Reports, with a complete coverage of the best journals in the realm of electrochemistry. BB is the **corresponding, first and last author of: 76%, 70% and 17% of these papers**, respectively. According to Scopus, these papers have received **more than 3740 citations** and BB's **h-index is 28**. Moreover, BB filed 4 patents (granted), gave 40 invited presentations at International conferences, workshops and colloquia, among which: keynote lecture at Eurocorr 2008, Plenary lecture at WASCOM 2011, Heraeus-Seminar (2014), Gordon Research Conference on Aqueous Corrosion in 2014 Department Seminars at the Universities of Shanghai-Fudan (2007), Xiamen (China, 2007), Dresden (2008), Ilmenau (2013) Yamanashi (J) (2013) and Technical University of Munich (2015), XV School on Synchrotron Radiation: Fundamentals, Methods and Applications (Trieste, 2019). In addition, he has been keynote lecture at the 2015 (Trento) and 2020 (Bologna) editions of the meetings of the Italian Synchrotron Light Society (Società Italiana Luce di Sinchrotrone) and invited lecturer at the 2019 (Padua) edition of the meeting of the Italian Electrochemical Society (Giornate dell'Elettrochimica Italiana). BB's main research achievements are summarized below.

2.1) Electrochemical materials science of batteries, fuel cells and supercapacitors

2.1.1) Electrochemical synthesis of materials and device development Nanostructured ZAB air cathode ORR and bifunctional electrocatalysts (*Mater Today En* **6** (2017) 154, *J Electroanal Chem* **758** (2015) 191); nanostructured ultra-high capacitance supercapacitor materials (*ChemElectroChem* **1** (2014) 1161, *ChemElectroChem* **1** (2014) 392, *Electrochim. Acta* **87** (2013) 918); Zn-microsponge anodes for rechargeable batteries (*ACS Appl En Mater* (2020) doi/10.1021/acsaem.0c00489); electrocatalysts for SOFC anodes (*Surf Coat Tech* **203** (2009) 3427); construction and operation of electrochemical energetic devices: ZAFC (*J Appl Electrochem* **47** (2017) 877), cells for *operando* soft-X ray STXM and *in situ* study of PEMFC (*J Phys Chem C* **113** (2009) 9783), SPEM/NAP-XPS/NAP-SPEM and *in situ* study of SOFC-SOEC (*ChemSusChem* **4** (2011) 1099, *J. Power Sources* **436** (2019) 226815)), SFG (*Corros Sci* **49** (2007) 2392), FTIR (*J Electroanal Chem* **569** (2004) 53).

2.1.2) Durability of active materials and components *Operando* ageing of novel anodic electrocatalysts for DEFCs (*J. Power Sources* **231** (2013) 6) and PEMFCs (*J. Power Sources* **196** (2011) 2513, *J Electroanal Chem* **657** (2011) 113); degradation and protection of metallic bipolar plates for PEMFCs (*J Power Sources* **195** (2010) 3590) and SOFCs (*J Power Sources* **195** (2010) 4772); degradation of MCFC cathodes (*Int J Hydrogen En* **36** (2011) 10403); degradation of secondary Zn-air battery anodes (*ChemElectroChem* (2020) **7** (2020) 1752-1764).

2.1.3) Synchrotron-based operando studies STXM/XAS, STXM/XRF, SPEM and CDI of ZAB air cathode fabrication (*Applied Nanoscience* **8** (2018) 627, *J Mater Chem A* **3** (2015) 19155, *Electrochim Acta* **137** (2014) 535); single-catalyst grain SPEM: ZAB air cathode catalyst operation and ageing (*Electrochem Comm* **69** (2016) 50, *ACS Appl Mater Inter* **6** (2014) 19621, *ChemElectroChem* **2** (2015) 1541); SPEM and NAP-SPEM of SOFCs (*Sci Rep* **3** (2013) 2848, *J Phys Chem C* **116** (2012) 23188, *J Phys Chem C* **116** (2012) 7243); NAP-XPS of SOEC during CO₂ reduction (*J Electroanal Chem* **799** (2017) 17, *Electrochim Acta* **174** (2015) 532).

2.1.4) ERS-, FTIR-, Raman-, SFG-, SHG, TEM- and mCT-based operando studies Zn anode operation during ZAB charge (Raman, ERS and SFG) (*Electrochim Acta* **248** (2017) 270, *J Electroanal Chem* **855** (2019) 113641) and discharge (ERS, SHG) (*J Appl Electrochem* **45** (2015) 43); ERS during electrochemical fabrication of composite SOFC anode materials (*J Solid State Electrochem* **16** (2012) 3429); FTIR (*J Power Sources* **195** (2010) 7968) and SFG (*J Power Sources* **195** (2010) 4119) at novel anodic electrocatalysts for DEFCs; degradation of PEMFC bipolar plates by STXM/XAS (*ChemSusChem* **7**

(2010) 846); degradation of SOFC interconnects by SPEM (*Chem Eur J* **18** (2012) 10196); SFG during fabrication of composite nanostructured supercapacitor materials (*Electrochim Acta* **218** (2016) 208); TEM during heat-treatment of SOFC anodes (*J Solid State Electrochem* **22** (2018) 3761); XMCT during the operation of Zn-microsponge anodes (*ACS Appl En Mater* (2020) doi/10.1021/acsaem.0c00489).

2.1.5) Operando studies with ionic liquids Electrodeposition of supercapacitor materials, studied by: SERS (*J Electroanal Chem* **651** (2011) 1), SFG (*J Electroanal Chem* **661** (2011) 20, *Electrochem Comm* **12** (2010) 56), STXM/XAS (*Electrochim Acta* **114** (2013) 889, *X-Ray Spectrom* **48** (2019) 527: top-downloaded paper 2018-2019), ERS (*J Power Sources* **211** (2012) 71); XAS microspectroscopy study of PEMFC interconnect degradation (*PhysChemChemPhys* **13** (2011) 7968).

2.2) First demonstration of spectroscopic and spectrometric methods for operando electrochemical material studies

Ptychography (*Nano Res* **9** (2016) 2046); SPEM (*Electrochem Comm* **24** (2012) 104) and NAP-SPEM (*Top Catal* **61** (2018) 2185) with a self-driven single-chamber SOFC; dynamic soft-X ray XAS (*Electrochem Comm* **10** (2008) 1680) and XRF (*Anal Chem* **86** (2014) 664) microspectroscopies under electrochemical control; VIS ultrafast transient reflectivity/absorption under electrochemical control (*Electrochem Comm* **11** (2009) 799, *ACS Energy Lett.* **4** (2019) 2213); FTIR (*J Cryst Growth* **243** (2002) 190) and SFG during out-of-equilibrium phase-growth (*J Electroanal Chem* **602** (2007) 61); doubly-resonant SFG at an electrochemical interface (*J Phys Chem C* **112** (2008) 11791); demonstration of formal inconsistencies in conventional linear EIS data treatment (*Int J Nonlinear Mech* **40** (2005) 557, *J Appl Electrochem* **34** (2004) 277) and development of a novel robust non-linear approach: theory (*Nonlinear Anal-Real* **9** (2008) 412), device development and experiments (*J Appl Electrochem* **36** (2006) 983).

2.3) Electrochemical phase-formation studies

2.3.1) Operando spectroscopic studies of electrochemical phase-formation processes

Electrodeposition from mixed aqueous/organic electrolytes studied by SERS (*J Solid State Electrochem* **13** (2009) 1553) and SHG (*J Solid State Electrochem* **14** (2010) 989); direct observation of electrodeposition intermediates by operando Raman (*Appl Surf Sci* **255** (2009) 4309) and SFG (*J Phys Chem C* **112** (2008) 6352); study of adsorption and reaction of additives for metal electrodeposition by operando SERS (*Electrochim Acta* **55** (2010) 3279, *Electrochim Acta* **52** (2007) 4767, *J Electrochem Soc* **153** (2006) C254, *J Electrochem Soc* **152** (2005) C255, *Electrochim Acta* **47** (2002) 4511), SFG (*J Solid State Electrochem* **12** (2008) 303, *J Electroanal Chem* **574** (2004) 85), ERS (*J Appl Electrochem* **36** (2006) 87) and FTIR (*J Cryst Growth* **271** (2004) 274); magnetic-field effects on alloy electrodeposition (*J Electroanal Chem* **651** (2011) 197, **626** (2009) 174, **615** (2008) 191); corrosion: hardmetal studied by SFG (*Int J Refract Met Hard Mater* **60** (2016) 37), SERS (*Corros Sci* **46** (2004) 453) and spectro-STXM (*Int J Refract Met Hard Mater* (2020) in press), inhibitors investigated by FTIR and ERS (*Corros Sci* **48** (2006) 193).

2.3.2) Establishment of electrochemical phase-formation mechanisms Electrodeposition of alloys (*J Phys Chem C* **112** (2018) 15996, *J Electrochem Soc* **148** (2001) C231, *Scripta Mater* **43** (2000) 877, *Electrochim Acta* **39** (1994) 1123, 1787); electrochemical fabrication of composites: theory, experiments and applications (*Corros Sci* **45** (2003) 1161, *Electrochim Acta* **45** (2000) 3431, *Compos Sci Technol* **59** (1999) 1579, *Scripta Mater* **36** (1997) 1245); corrosion (*Corros Sci* **51** (2009) 1675, **57** (2012) 104) and tribocorrosion (*Wear* **255** (2003) 237); electrochemical restoration and conservation of archaeological artefacts (*J Archaeol Sci* **52** (2014) 24, *J Solid State Electrochem* **14** (2010) 479, *Archaeometry* **47** (2005) 817).

2.3.3) Mathematical modelling of electrochemical phase-formation processes Development of a morphochemical reaction-diffusion model: Turing, Turing-Hopf and Hopf analyses and experimental validation (*Comput Math Appl* **70** (2015) 1948, *J Solid State Electrochem* **17** (2013) 467, *J Comput Appl Math* **236** (2012) 4132, *J Electrochem Soc* **155** (2008) F165, *Comp Mater Sci* **42** (2008) 394); role of cross-diffusion (*Appl Math Model* **57** (2018) 492); growth on curved domains (*Commun Nonlinear Sci Numerical*

Simul **48** (2017) 484, **79** (2019) 104930); parameter identification (*J Phys D* **50** (2017) 154002, *Inverse Probl* **33** (2017) 124009, *Inverse Probl Sci Eng* **27** (2019) 618).

3) Creation of the Electrochemical Laboratory and Group at University of Salento

BB set up from scratch and directs the two Electrochemistry Laboratories of the Department of Innovation Engineering of the University of Salento: the Applied Electrochemistry Laboratory (AEL) and the Spectroelectrochemistry Laboratory (SEL). BB personally carried out all the activities related to fundraising for the purchase of equipment and establishment of permanent staff positions and temporary contracts as well as acquisition of laboratory spaces. The AEL, is focused on the operation of fuel cells (Zn-air, PEM-FC, SOFC and MCFC), electrodeposition, corrosion and electroanalytic studies. The SEL is devoted to a range of *operando* methods. The staff specifically hired for AEL and SEL are an Associate Professor of Applied Physical Chemistry (since 2016 formerly PhD student and (2004-2016) Senior Lecturer (Ricercatore Universitario a tempo indeterminato)), an Associate Professor of Metallurgy (since 2018) and a Senior Lecturer of Applied Physical Chemistry (Ricercatore Universitario a tempo indeterminato, since 2012). Moreover, the AEL employed a laboratory technician for the period 2005-2015. Briefly, the AEL is equipped with: 7 potentiostats (4 with EIS capability, one modified for non-linear AC measurements); facilities for the synthesis and application of fuel-cell catalysts; rotating-disk electrode; testing system for: PEMFC, SOFC, MCFC, ZAFB; a range of electrochemical reactors with fluid-dynamic control (fluidized-bed, CSTR, PFR); cells for high-temperature electrochemistry (up to 1000°C) with controlled atmosphere; rigs with electrochemical control capabilities for petrochemical corrosion (including H₂S saturation) and erosion-corrosion. The SEL features the following spectrometers for *in situ* electrochemical measurements: FTIR; Raman; VIS-UV spectral reflectance; VIS-UV spectroellipsometry; Surface Optical Second Harmonic Generation as well as two systems for *in situ* electrochemical Scanning Tunneling Microscope and Atomic Force Microscopy, with a range of electrochemical accessories for tip fabrication and electrolyte management.

4) Awards and Honours

- 1996 "Mario Lazzari" Prize for the best PhD Thesis in Electrochemistry (Electrochemistry Division of the Italian Chemical Society).
- 2001 "Johnson Matthey Silver Medal 2000-2001" for the best paper on precious-metal electrochemistry, Institute of Metal Finishing (UK).
- 2002 Fellow of the Institute of Metal Finishing (UK)
- 2011 "Johnson Matthey Silver Medal 2010-2011" for the best paper on precious-metal electrochemistry, Institute of Metal Finishing (UK).
- 2013 "Westinghouse Award" for the best paper published in *Trans IMF*, Institute of Materials Finishing (UK).
- 2016 "Westinghouse Award" for the best paper published in *Trans IMF*, Institute of Materials Finishing (UK).
- 2017 Co-Guest Editor (with Andrea Goldoni of Elettra Sincrotrone Trieste) of special issue on "Synchrotron- and FEL-based X-ray Methods for Battery Studies", *J Phys D* (IOP). Editorial: *J Phys D* **51** (2018) 050201.

5) Professional Service

- 2001 Organizer of the National Electrochemical Congress (“Giornate dell'Elettrochimica Italiana 2001”, Società Chimica Italiana) (Lecce - September 20-22nd, 2001).
- 2003-present Editorial Board Member of "Transactions of the Institute of Materials Finishing" (formerly "Transactions of the Institute of Metal Finishing").
- 2003-2005 Elected member of the Board of Directors of the Electrochemistry Division of the Italian Chemical Society (Divisione di Elettrochimica, Società Chimica Italiana).
- 2007 Member of the Scientific Committee of the GEI-ERA 2007 Congress (Giornate dell'Elettrochimica Italiana – Elettrochimica per il Recupero Ambientale) Cagliari 15-20 Luglio 2007.
- 2011 Member of the Scientific Committee of the WASCOM 2011 “Waves and Stability” Congress (Brindisi – June 12-18th, 2011).
- 2012 Member of the Local Advisory Board of Interfinish 2012 (Milano - November 14-17th, 2012).
- Since 2013 Member of the Technical Committee on Materials for Energy of the Italian Metallurgical Society (Comitato Tecnico Materiali per l'Energia, Associazione Italiana di Metallurgia).
- Since 2015 External Reviewer for the Canadian Light Source Review Committee.
- Since 2015 External Reviewer for the CERIC (Elettra Synchrotron Consortium) Review Committee.
- 2016 Member of the Organizing Committee of the Workshop on “Energy: metallic materials and energy storage” (“Energia: materiali metallici e accumulo”) of the Italian Metallurgical Association (Associazione Italiana di Metallurgia) (Milano - December 16th, 2016).
- 2017 Member of the Organizing Committee of the XII ECHEMS conference (“Electrochemistry in Ingenious Molecules, Surfaces and Devices”) (Milano Marittima - June 6th-9th, 2017).
- 2017 National Corrosion Science Congress ("Giornate Nazionali sulla Corrosione e Protezione", Associazione Italiana di Metallurgia) co-organizer of the session on: “Methods for the investigation and control of corrosion” (“Tecniche di studio e controllo della corrosione”) (Milano - June 28-30th, 2017).
- 2018 Member of the Scientific Committee of the Workshop: “From research to industry: the new frontiers of corrosion engineering” in memory of Prof. Pietro Pedeferri (Giornata di Studio “Pietro Pedeferri”. “Dalla ricerca all’industria: le nuove frontiere dell’ingegneria della corrosione”) Politecnico di Milano, November 11th, 2018.
- A broad range of review/assessment activities for: (i) referee for international scientific journals (among which: ACS Catal., Adv. Funct. Mater., Angew. Chem. Int. Ed., Energy Environ. Sci. (RSC), J. Am. Chem. Soc., Nano Energy, Nat. Comm.); (ii) PhD theses assessor/examination board member (6 international, 10 national); (iii) Scientific proposal assessor (6 international, 6 national); (iv) Advisor for international academic promotions (1 UK (Reader, Loughborough Univ.), 1 Japan (Associate Prof., Yamamashi Univ.).
- 2018-present Editorial Board Member of "Energies" (MDPI circuit).
- 2019-present Member of Experts Working Group in Batteries Strategy for CERIC-ERIC.
- 2020-present GISEL (Gruppo Italiano Sistemi di Accumulo Elettrochimico. Italian Group for Electrochemical Storage) Coordinator of Division A7: Advanced Characterization Methods (with Prof. Isabella Nicotera, UNICAL).

6) Funding ID

BB has a solid experience in managing and running research projects, both at domestic and International level, and has attracted substantial funding over the last 20 years. An overview of the projects in which he has been involved is reported below, organized according to funding sources.

6.1) PRIN National Research Projects: period 1999-2008, #5 projects mainly on electrodeposition, #4 as research-unit coordinator, #1 as WP leader: total € ca. 305,300.

6.2) Indirect EU funding:

- #6 POR 2000-6 and POR 2007-13 projects (#4 as project coordinator, #2 as research unit coordinator) on electrodeposition and corrosion processes: total € ca. 562,000.

- #3 PON 2000-6 and 2007-13 projects (scientific responsibility for specific tasks and participation in funding) on functional coatings, corrosion and tribocorrosion: total € ca. 653,000.

6.3) Direct EU funding

- 2001-2005 #2 FP5-GROWTH projects (as research-unit coordinator) on electrodeposition and tribocorrosion: total € ca. 194,200.

6.4) Competitive access to big facilities as PI

6.4.1) ELETTRA synchrotron (Trieste, Italy)

Period 2007-2019 #25 beamtimes, 2 of which “long-term projects”, at Elettra synchrotron Trieste for a total of 212 experimental days. 20 proposals ranked as “top quarter”. BB’s activity at Elettra has been described 3 times in “Elettra Top Stories” and 4 times in “Elettra Highlights”.

6.4.2) BESSY-II synchrotron Berlin (D)

2014 #1 beamtime: 7 experimental days.

6.4.3) Diamond Synchrotron, Didcot (UK)

2016-2019 #2 beamtimes (1 “best-score proposal”): 11 experimental days.

6.4.4) Optical Parametric Oscillator and CLIO Free-Electron Laser SFG facilities (Université Paris XI, Orsay, F)

2002-2013: #17 beamtimes (6@OPO, 11@CLIO-FEL) for a total of 88 experimental days.

6.4.5) Tomolab@Elettra (X-ray microtomography) Trieste, Italy

2013-2018: #3 beamtimes for a total of 9 experimental days.

6.5) Funding from technology transfer initiatives

- 2001-2020 #7 research contracts/agreements with private companies on different topics in the field of applied electrochemistry: total € ca. 205,150.

- 1999-2011 Different types of funding from Public Institutions as PI/Local unit coordinator: total € ca. 106,100 and with participation in funding: total € ca. 193,500.

6.6) Competitive Funding for Scholarships

- 2020-2023: CERIC-ERIC: three-year PhD scholarship: total € ca. 88,000.

7) Teaching experience and supervision/tutoring of students and young scientists

7.1) Courses taught at the University of Salento

BB **currently teaches** two MSc courses:

7.1.1) **Batteries and Fuel Cells** (MSc in Materials Engineering and Nanotechnology, 1st year compulsory, 9 credits (CFU), 81 hours, taught in English), since AY 2019-2020

7.1.2) **Metallic Materials for Aeronautics** (MSc in Aerospace Engineering, 2nd year, 9 credits (CFU), 81 hours, compulsory course for the “Main course” track, taught in English). AYs 2014-15 to 2019-2020.

Formerly this course has been taught in the following two formats: (i) AY 2013-2014, MSc in Aerospace Engineering, 2nd year, 9 credits (CFU), 81 hours, compulsory course, taught in English; (ii) AYs 2007-2008 to 2012-2013 MSc in Aerospace Engineering, 2nd year, 9 credits (CFU), 81 hours, compulsory course, taught in Italian (Materiali Metallici per l'Aeronautica).

- Since the AY 2020-21, "Metallic Materials for Aeronautics" will be replaced by "**Electrical Energy Storage for Aeronautics**" (MSc in Aerospace Engineering, 2nd year, 9 credits (CFU), 81 hours, taught in English), compulsory course for the "Aerospace engineering systems" track, eligible course for the "Aerospace design" track.

Owing to the notable flexibility of the BSc and MSc Curricula of University of Salento, since his appointment in 1998, BB has had the opportunity of teaching a wide range of subjects in the field of Electrochemistry, Physical Chemistry and Metallurgy, listed below.

1) **Celle a Combustibile** (Fuel Cells) (MSc in Materials Engineering, 2nd year, 6 credits, 54 hours, compulsory course, taught in Italian). AYs 2007-2008 to 2010-2011.

2) **Chimica Fisica Applicata** (Applied Physical Chemistry) (Diploma Course in Materials Engineering "vecchio ordinamento", compulsory course, 84-88 hours, 3rd year, AYs 1998-1999 to 2000-2001) and BSc in Industrial Engineering, 3rd year (after D.M. 509/99), compulsory course, 4 credits, 36 hours, taught in Italian, AYs 2000-2001 to 2006-2007).

3) **Chimica Fisica Applicata II** (Applied Physical Chemistry, advanced course) (MSc in Materials Engineering, 2nd year, 6 credits, 54 hours, compulsory course, taught in Italian). AYs 2005-2006, 2006-2007 and 2008-2009.

4) **Chimica Fisica delle Superfici II** (Physical Chemistry of Surfaces, advanced course) (MSc in Materials Engineering, 2nd year, 7 credits, 63 hours, compulsory course, taught in Italian). AYs. 2006-2007 and 2007-2008.

5) **Corrosione e Protezione dei Materiali Metallici per i Beni Culturali** (Corrosion and Protection of Metallic Materials for Cultural Heritage) (BSc in Cultural Heritage (Corso di Laurea Interfacoltà in Tecnologie per i Beni Culturali), 2nd year, 3 credits, 27 hours, compulsory course, taught in Italian). AY 2003-2004.

6) **Electrometallurgy** (MSc in Mechanical Engineerings, 2nd year, 6 credits, 54 hours, eligible course, taught in English). AY 2010-2011.

7) **Elettrochimica Applicata dei Metalli** (Applied Electrochemistry of Metals) (BSc in Materials Engineering, 3rd year, 6 credits, 54 hours, eligible course, taught in Italian). AYs 2002-2003 to 2004-2005.

8) **Elettrochimica Organica Applicata** (Applied Organic Electrochemistrys) (BSc in Materials Engineering, 3rd year, 6 credits, 54 hours, eligible course, taught in Italian). AYs 2002-2003 to 2004-2005.

9) **Fenomeni di Degradazione** (Corrosion Science and Engineering) (BSc in Materials Engineering, 2nd year, compulsory course, 4 credits, 36 hours, taught in Italian). AYs 2001-2002 to 2005-2006. In AY 2005-2006 also taught in BSc in Mechanical Engineering, 2nd year, compulsory course.

10) **Sistemi Elettrochimici per l'Accumulo, la Produzione e la Conversione di Energia con Elementi di Corrosione** (Electrochemical Systems for the Production and Conversion of Energy, with Elements of Corrosion Science) (BSc in Industrial Engineering - Brindisi, 3rd year, eligible course, 6 credits, 54 hours, taught in Italian). AYs 2010-2011 and 2011-2012.

11) **Tecnologie Elettrochimiche** (Electrochemical Technologies) (MSc in Materials Engineering, 2nd year, 6 credits, 54 hours, compulsory course, taught in Italian). A version in English of this course ("Electrochemical Technologies") expanded to 9 credits (81 hours) is still currently active and taught by an Associate Professor (SSD ING-IND/23 "Chimica Fisica Applicata"). AY 2005-2006 to 2010-2011. In AY 2010-2011 also taught to MSc in Mechanical Engineering, 2nd year compulsory course.

12) **Metallurgical Techniques and Instrumentation** (MSc in Materials Engineering, 1st year, 9 credits, 81 hours, compulsory course, taught in English). AY 2015-2016 to 2018-2019.

7.2) Courses taught at Politecnico di Milano

1) **Materials for Direct Energy Conversion** (MSc in Energy Engineering, 2nd year, 8 credits, eligible course, taught in English). AY 2020-2021.

7.2) Supervision/tutoring of students and young scientists

BB supervised 9 PhD students, in addition to 17 MSc and 20 BSc theses. 2 of his PhD students won best PhD thesis awards of the Electrochemistry Division of the Italian Chemical Society. One former PhD student and coworker on the postdoctoral level has received twice the Young Researcher Award of University of Salento and was appointed to associate professor position (SSD ING-IND/23 “Chimica Fisica Applicata”) at University of Salento.

Moreover, BB also performed an extensive co-supervision activity for theses presented in different Italian Universities: 16 MSc theses Politecnico di Milano; 3 MSc theses University of Bari; 1 MSc theses University of Trieste; 1 BSc thesis University of Rome 1 (Sapienza), 6 MSc and 3 BSc University of Salento. Finally, BB has fostered International exchange of students and young researchers in the field of electrochemistry: (i) receiving a "VIGONI" CRUI-DAAD project 2005 for researcher exchange between Italian and German Universities (€ ca. 16,000); acting as promoter and contact person of (ii) Erasmus Bilateral Agreement for Teaching Staff Mobility of short duration, Academic Years 2013-2014 and (iii) Erasmus+ Programme, Key Action 1 – Mobility for learners and staff – Higher Education Student and Staff Mobility – Inter-institutional agreement 2014-2020 between Technische Universität Ilmenau (D) and Università del Salento. International mobility promotion led to the supervision of a PhD student and a post-doc from University of Ilmenau (D) (funded for 18 months) and to the tutoring of other international research students for 6-month internships at the Electrochemistry Lab.s of University of Salento: 2 at PhD level (1 from Colombia and 1 from Iran) and 2 at MSc level (Germany).

List of acronyms

AEL: applied electrochemistry laboratory;
CDI: coherent diffractive imaging;
CSTR: continuous-flow stirred-tank reactor;
DEFC: direct ethanol fuel cell;
EIS: electrochemical impedance spectrometry;
ERS: electroreflectance spectroscopy;
FEL: free-electron laser;
FTIR: Fourier-transform infra-red spectroscopy;
MCFC: molten carbonate fuel cell;
mCT: micro-computed tomography;
NAP-XPS: near-ambient pressure X-ray photoelectron spectroscopy;
ORR: oxygen-reduction reaction;
PEMFC: proton-exchange membrane fuel cell;
PFR: plug-flow reactor;
SEL: spectroelectrochemistry laboratory;
SERS: surface-enhanced Raman spectroscopy;
SFG: sum-frequency generation spectroscopy;
SHG: (optical) second harmonic generation;
SOEC: solid-oxide electrolysis cell;
SOFc: solid-oxide fuel cell;
SPEM: scanning photoelectron microscopy;
STXM: scanning transmission X-ray micro-spectroscopy;
XPS: X-ray photoelectron spectroscopy;
XAS: X-ray absorption spectroscopy;
XMCT: X-ray micro-compute tomography;
XRF: X-ray fluorescence spectroscopy;
ZAB zinc-air battery;
ZAFC zinc-air fuel cell

Updated: June 1st, 2020

LIST OF JOURNAL PUBLICATIONS (updated June 1st, 2020)

The corresponding author is marked with an asterisk.

2020

[2020.01] Claudio Mele*, Francesca Lionetto*, Benedetto Bozzini

“An erosion-corrosion investigation of coated steel for applications in the oil and gas field, based on bipolar electrochemistry”

Coatings 10 (2020) 92 (11 pages)

doi:10.3390/coatings10020092

[2020.02] Francesca Rossi, Claudio Mele, Marco Boniardi, and Benedetto Bozzini*

“Electrodeposition of Zn from alkaline electrolytes containing quaternary ammonium salts and ionomers: the impact of cathodic-anodic cycling conditions”

ChemElectroChem 7 (2020) 1752-1764.

[2020.03] Benedetto Bozzini*, Matteo Amati, Luca Gregoratti, Francesca Rossi and Maya Kiskinova

“*In situ* photoelectron spectromicroscopy for the investigation of solid-oxide based electrochemical systems”

In: “Solid Oxide-Based Electrochemical Devices – Advances, Smart Materials and Future Energy Applications”, Massimiliano Lo Faro Ed., Elsevier, Academic Press, 125 London Wall, London EC2Y 5AS, United Kingdom, (2020), Chapter 3, pp. 55-89.

[2020.04] Benedetto Bozzini*, Claudio Mele, Alessio Veneziano, Nicola Sodini, Gabriele Lanzafame, Antonietta Taurino, and Lucia Mancini

“Morphological evolution of Zn-sponge electrodes monitored by in situ X-ray computed microtomography”

ACS Applied Energy Materials published online <https://pubs.acs.org/doi/10.1021/acsaem.0c00489>

Selected for “Elettra Top Stories”

<http://www.elettra.eu/science/top-stories/morphological-evolution-of-zn-sponge-electrodes-monitored-by-in-situ-x-ray-computed-microtomography.html>

[2020.05] Benedetto Bozzini, Alessandra Gianoncelli, George Kourousias, Marco Boniardi, Andrea Casaroli, Simone Dal Zilio, Rafaqat Hussain, Majid Kazemian Abyaneh, Maya Kiskinova, Claudio Mele, Sandra Tedeschi and Gian Pietro De Gaudenzi

“The Role of Chromium in the Corrosion Performance of Cobalt- and Cobalt-Nickel based Hardmetal Binders: a Study centred on X-Ray Absorption Microspectroscopy”

International Journal of Refractory Metals and Hard Materials. In press.

2019

[2019.01] Benedetto Bozzini, Majid Kazemian*, Maya Kiskinova, George Kourousias, Claudio Mele and Alessandra Gianoncelli

“Operando SXM study of rechargeable Zn-air battery anodes in deep-eutectic solvent electrolyte”
X-ray Spectrometry 48 (2019) 527-535.

Awarded “Top downloaded paper” Wiley certificate (Jan. 2018 – Dec. 2019).

[2019.02] Benedetto Bozzini, Danjela Kuscer, Matteo Amati, Luca Gregoratti*, Patrick Zeller, Tsvetina Dobrovolska, Ivan Krastev.

“Spatially Resolved XPS Characterization of Electrochemical Surfaces”
Surfaces (MDPI) 2 (2019) 295-314
Paper chosen as the cover of Issue 2, Volume 2, 2019 of surfaces.

[2019.03] Ivonne Sgura*, Amos S. Lawless, Benedetto Bozzini.
“Parameter estimation for a morphochemical reaction-diffusion model of electrochemical pattern formation”
Inverse Problems in Science & Engineering, 27 (2019) 618-647

[2019.04] Benedetto Bozzini*, Anita Previdi, Matteo Amati, Manuela Bevilacqua, Giulio Cordaro, Manuel Corva, Alessandro Donazzi, Giovanni Dotelli, Luca Gregoratti, Renato Pelosato, Mykhailo Vorokhta and Erik Vesselli.
“*In situ* near-ambient pressure XPS discloses the surface composition of operating NdBaCo₂O_{5+ δ} solid oxide fuel cell cathodes”
Journal of Power Sources 436 (2019) 226815 (9 pages)

[2019.05] Deborah Lacitignola, Ivonne Sgura, Benedetto Bozzini, Tsvetina Dobrovolska, Ivan Krastev.
“Spiral waves on the sphere for an alloy electrodeposition model”
Communications in Nonlinear Science and Numerical Simulation 79 (2019) 104930 (14 pages)

[2019.06] Ivan Grigioni, Lucia Ganzer, Benedetto Bozzini, Giulio Cerullo, and Elena Selli*
“*In Operando* Photoelectrochemical Femtosecond Transient Absorption Spectroscopy of WO₃/BiVO₄ Heterojunctions”
ACS Energy Letters 4 (2019) 2213-2219.

[2019.07] Francesca Rossi, Manuela Bevilacqua, Bertrand Busson, Manuel Corva, Abderrahmane Tadjeddine, Francesco Vizza, Erik Vesselli, Benedetto Bozzini*
“Cyanide as a local spectroscopic probe for the *in situ* investigation of Zinc electrodeposition”
Journal of Electroanalytical Chemistry 855 (2019) 113641 (11 pages)

2018

[2018.01] Benedetto Bozzini*, Andrea Goldoni.
“Will in situ synchrotron-based approaches beat the durability issues of next-generation batteries?”
Journal of Physics D: Applied Physics 51 (2018) 050201 (8 pages)

[2018.02] George Kourousias*, Benedetto Bozzini, Michael W. M. Jones, Grant A. Van Riessen, Simone Dal Zilio, Fulvio Billé, Maya Kiskinova, Alessandra Gianoncelli.
“Monitoring dynamic electrochemical processes with in-situ ptychography”
Applied Nanoscience 8 (2018) 627-636.

[2018.03] Benedetto Bozzini*, Matteo Amati, Tsvetina Dobrovolska, Luca Gregoratti, Ivan Krastev, Antonietta Taurino and Maya Kiskinova.
“Depth-dependent Scanning Photoelectron Microspectroscopy Unravels the Mechanism of Dynamic Pattern Formation in Alloy Electrodeposition”
J. Phys. Chem. C 112 (2018) 15996-16007.
Paper selected for Elettra Highlights 2018-2019.

[2018.04] Catalano, Massimo; Taurino, Antonietta*; Zhu, Jiangtao; Crozier, Peter A.; Dal Zilio, Simone; Amati, Matteo; Gregoratti, Luca; Bozzini, Benedetto; Mele, Claudio.
"Dy- and Tb-doped CeO₂-Ni cermets for solid oxide fuel cell anodes: electrochemical fabrication, structural characterization and electrocatalytic performance"
Journal of Solid State Electrochemistry 22 (2018) 3761-3773.

[2018.05] B. Bozzini, D. Kuscer, S. Drnovšek, M. Al-Hada, M. Amati, H. Sezen and L. Gregoratti*
"Spatially resolved photoemission and electrochemical characterization of a single-chamber solid oxide fuel cell". Topics in Catalysis 61 (2018) 2185-2194.

[2018.06] Deborah Lacitignola*, Benedetto Bozzini, Ralf Peipmann, Ivonne Sgura.
"Cross-diffusion effects on a morphochemical model for electrodeposition"
Applied Mathematical Modelling 57 (2018) 492-513.

2017

[2017.01] Maria Chiara D'Autilia*, Ivonne Sgura*, Benedetto Bozzini*.
"Parameter Identification in ODE models with oscillatory dynamics: a Fourier regularization approach".
Inverse Problems (IOP) 33 (2017) 124009 (23 pages)

[2017.02] B. Bozzini*, G. Kourousias, D. E. Bedolla, A. Gianoncelli.
"Chemical-state evolution of Ni in Mn-Ni/polypyrrole nanocomposites under bifunctional air electrode conditions, investigated by quasi-in situ multi-scale soft X-ray absorption spectroscopy"
Materials Today Energy 6 (2017) 154-163.

[2017.03] Carolina Ramirez*, Benedetto Bozzini and Jorge Calderon.
"In situ SERS and ERS assessment of the effect of triethanolamine on zinc electrodeposition on a gold electrode"
Electrochimica Acta 248 (2017) 270-280.

[2017.04] Benedetto Bozzini*, Belén Alemán, Matteo Amati, Marco Boniardi, Vincenzo Caramia, Giuseppe Giovannelli, Luca Gregoratti, Majid Kazemian Abyaneh
"Novel insight into bronze disease gained by synchrotron-based photoelectron spectromicroscopy, in support of electrochemical treatment strategies"
Studies in Conservation, 62 (2017) 465-473.
DOI: 10.1080/00393630.2016.1235339

[2017.05] Claudio Mele*, Angelo Bilotta, Patrizia Bocchetta and Benedetto Bozzini.
"Characterization of the particulate anode of a laboratory flow Zn-air fuel cell"
Journal of Applied Electrochemistry 47 (2017) 877-888.

[2017.06] Ivonne Sgura* and Benedetto Bozzini.
"XRF map identification problems based on a PDE electrodeposition model"
Journal of Physics D 50 (2017) 154002 (21 pp)

[2017.07] Benedetto Bozzini*, Patrizia Bocchetta, George Kourousias, Alessandra Gianoncelli.
"Electrodeposition of Mn-Co/polypyrrole nanocomposites: an electrochemical and in situ soft-X ray microspectroscopic investigation"
Polymers 9 (2017) 17 (22 pp.) (Invited paper).

[2017.08] Benedetto Bozzini*, George Kourousias, Alessandra Gianoncelli, Michael Jones, Grant Van Riessen and Maya Kiskinova.

“Soft X-ray ptychography as a tool for in operando morphochemical studies of electrodeposition processes with nanometric lateral resolution”

Journal of Electron Spectroscopy and Related Phenomena 220 (2017) 147-155. (Invited paper)

[2017.09] Benedetto Bozzini*, George Kourousias and Alessandra Gianoncelli.

“In situ observation of dynamic electrodeposition processes by soft X-ray fluorescence microspectroscopy and keyhole coherent diffractive imaging”

Journal of Physics D: Applied Physics. 50 (2017) 124001 (8 pp.)

Special issue on: “Synchrotron- and FEL-based X-ray Methods for Battery Studies”

[2017.10] Claudio Mele* and Benedetto Bozzini.

"A simple and safe method to implement corrosion experiments with 1 bar of H₂S"

Corrosion Engineering Science and Technology 52 (2017) 325-331.

[2017.11] Deborah Lacitignola*, Benedetto Bozzini, Massimo Frittelli, Ivonne Sgura.

“Turing pattern formation on the sphere for a morphochemical reaction-diffusion model for electrodeposition”

Communication in Non Linear Science and Numerical Simulation 48 (2017) 484–508.

[2017.12] Claudio Mele*, Marco V. Boniardi, Andrea Casaroli, Mattia Degli Esposti, Domenico Di Pietro, Paolo Guastamacchia and Benedetto Bozzini.

“A comprehensive assessment of the performance of corrosion resistant alloys in hot acidic brines for application in oil and gas production”

Corrosion Engineering Science and Technology 52 (2017) 99-113.

[2017.13] Benedetto Bozzini*, Matteo Amati, Claudio Mele, Axel Knop-Gericke and Erik Vesselli.

“An in situ near-ambient pressure X-ray Photoelectron Spectroscopy study of CO₂ reduction at Cu in a SOE cell”

Journal of Electroanalytical Chemistry 799 (2017) 17-25.

2016

[2016.01] Benedetto Bozzini*, Bertrand Busson, Christophe Humbert, Claudio Mele, Abderrahmane Tadjeddine.

“Electrochemical fabrication of nanoporous gold decorated with manganese oxide nanowires from eutectic urea/choline chloride ionic liquid. Part III – Electrodeposition of Au–Mn: a study based on in situ Sum-Frequency Generation and Raman spectroscopies”

Electrochimica Acta 218 (2016) 208–215.

[2016.02] George Kourousias*, Benedetto Bozzini, Alessandra Gianoncelli, Michael W. M. Jones, Mark Junker, Grant van Riessen, Maya Kiskinova.

“Shedding light on electrodeposition dynamics tracked in situ via soft X-ray coherent diffraction imaging”

Nano Research (Springer) 9 (2016) 2046-2056. *Selected for Elettra Top Stories*

[2016.03] Patrizia Bocchetta*, Matteo Amati, Mattia Fanetti, Andrea Goldoni, Luca Gregoratti, Maya Kiskinova, Hikmet Sezen and Benedetto Bozzini.

“ORR stability of Mn-Co/polypyrrole nanocomposite electrocatalysts studied by quasi in-situ identical-location photoelectron microscopy”
Electrochemistry Communications 69 (2016) 50-54.

[2016.04] M. Amati, B. Aleman, B. Bozzini, L. Gregoratti, H. Sezen, M. Kiskinova*.
“Characterization of catalytic materials with scanning photoelectron microscopy: Present and future”
Surface Science 652 (2016) 20-25.

[2016.05] Benedetto Bozzini*, Bertrand Busson, Gian Pietro De Gaudenzi, Christophe Humbert, Claudio Mele, Sandra Tedeschi and Abderrahmane Tadjeddine.
“Corrosion of cemented carbide grades in petrochemical slurries. Part I - Electrochemical adsorption of CN^- , SCN^- and MBT: A study based on in situ SFG”
International Journal of Refractory Metals and Hard Materials 60 (2016) 37-51.

2015

[2015.01] B. Bozzini, G. Gambino, D. Lacitignola, S. Lupo, M. Sammartino*, I. Sgura.
“Weakly nonlinear analysis of Turing patterns in a morphochemical model for metal growth”
Computers and Mathematics with Applications 70 (2015) 1948-1969.

[2015.02] Benedetto Bozzini*, Patrizia Bocchetta, Belén Alemán, Matteo Amati, Alessandra Gianoncelli, Luca Gregoratti, Hikmet Sezen, Antonietta Taurino and Maya Kiskinova.
“Electrodeposition and pyrolysis of Mn/polypyrrole nanocomposites: a study based on soft X ray absorption, fluorescence and photoelectron microspectroscopies”
Journal of Materials Chemistry A, 3 (2015) 19155–19167. *Selected for Eletttra Top Stories and Eletttra Highlights*

[2015.03] Benedetto Bozzini*, Matteo Amati, Patrizia Bocchetta, Simone Dal Zilio, Axel Knop-Gericke, Erik Vesselli, Maya Kiskinova.
“An in situ near-ambient pressure X-ray Photoelectron Spectroscopy study of Mn polarised anodically in a cell with solid oxide electrolyte”
Electrochimica Acta 174 (2015) 532-541.

[2015.04] Benedetto Bozzini*, Patrizia Bocchetta, Alessandra Gianoncelli, Claudio Mele and Maya Kiskinova.
“Electrodeposition and Ageing of Mn-Based Binary Composite Oxygen Reduction Reaction Electrocatalysts: a Study Based on Micro-X-ray Absorption Spectroscopy and X-ray Fluorescence Mapping”
ChemElectroChem 2 (2015) 1541-1550. (Invited paper)

[2015.05] Benedetto Bozzini*, Patrizia Bocchetta, and Alessandra Gianoncelli.
“Coelectrodeposition of ternary Mn-oxide/polypyrrole composites for ORR electrocatalysts: a study based on micro-X-ray absorption spectroscopy and X-ray fluorescence mapping” (Invited paper)
Energies 8 (2015) 8145-8164. (Invited paper)

[2015.06] Benedetto Bozzini*, Patrizia Bocchetta, Alessandra Gianoncelli, George Kourousias and Maya Kiskinova, Simone Dal Zilio.

“In situ soft X-ray fluorescence and absorption microspectroscopy: a study of Mn-Co/polypyrrole electrodeposition”

Journal of Vacuum Science & Technology A 33 (2015) 031102-1-6. (Invited paper)

[2015.07] Patrizia Bocchetta, Matteo Amati, Luca Gregoratti, Maya Kiskinova, Hikmet Sezen, Antonietta Taurino and Benedetto Bozzini*.

“Morphochemical evolution during ageing of pyrolyzed Mn/Polypyrrole nanocomposite oxygen reduction electrocatalysts”

Journal of Electroanalytical Chemistry, 758 (2015) 191-200.

[2015.08] Benedetto Bozzini*, Matteo Amati, Luca Gregoratti, Deborah Lacitignola, Ivonne Sgura, Ivan Krastev and Tsvetina Dobrovolska.

“Intermetallics as key to spiral formation in In-Co electrodeposition. A study based on photoelectron microspectroscopy, mathematical modelling and numerical approximations”

Journal of Physics D, 48 (2015) 395502 (12 pp)

[2015.09] Alessandra Gianoncelli*, Ivonne Sgura, Patrizia Bocchetta, Deborah Lacitignola, Benedetto Bozzini.

High-lateral resolution X-ray fluorescence microspectroscopy and dynamic mathematical modelling as tools for the study of electrodeposited electrocatalysts

X-RAY Spectrometry 44 (2015) 263-275.

[2015.10] Claudio Mele* and Benedetto Bozzini.

"Spectroelectrochemical investigation of the anodic and cathodic behaviour of zinc in 5.3 M KOH"

Journal of Applied Electrochemistry 45 (2015) 43-50.

[2015.11] Vincenzo Caramia and Benedetto Bozzini*.

"Potential-dependent reactivity of adsorbed cyanide during the electrodeposition of silver from cyanocomplexes: a study based on in situ surface-enhanced Raman spectroscopy"

Transactions of the Institute of Metal Finishing 93 (2015) 82-88.

[2015.12] Benedetto Bozzini*, Matteo Altissimo, Matteo Amati, Patrizia Bocchetta, Alessandra Gianoncelli, Luca Gregoratti, George Kourousias, Lucia Mancini, Claudio Mele and Maya Kiskinova.

“In situ and ex situ X-ray Microspectroelectrochemical Methods for the Study of Zinc-air Batteries”

Methods for the Study of Zinc–Air Batteries. In: Reedijk, J. (Ed.) Elsevier Reference Module in Chemistry, Molecular Sciences and Chemical Engineering. Waltham, MA: Elsevier. 18-Dec-15 doi: 10.1016/B978-0-12-409547-2.11452-0. (Invited paper)

[2015.13] Deborah Lacitignola*, Benedetto Bozzini* and Ivonne Sgura*.

"Spatio-temporal organization in a morphochemical electrodeposition model: Hopf and Turing instabilities and their interplay"

European Journal of Applied Mathematics 26 (2015) 143-173.

2014

[2014.01] Patrizia Bocchetta, Matteo Amati, Benedetto Bozzini*, Massimo Catalano, Alessandra Gianoncelli, Luca Gregoratti, Antonietta Taurino, and Maya Kiskinova.

“Quasi-in Situ Single-Grain Photoelectron Microspectroscopy of Co/PPy Nanocomposites under Oxygen Reduction Reaction”
ACS Applied Materials & Interfaces, 6 (2014) 19621-19629.

[2014.02] Benedetto Bozzini*, Alessandra Gianoncelli, Claudio Mele, Aldo Siciliano and Lucia Mancini.

"Electrochemical reconstruction of a heavily corroded Tarentum hemiobolus silver coin: a study based on microfocus X-ray computed microtomography"
Journal of Archaeological Science 52 (2014) 24-30.

[2014.03] Patrizia Bocchetta, Alessandra Gianoncelli, Majid Kazemian Abyaneh, Maya Kiskinova, Matteo Amati, Luca Gregoratti, David Jezeršek, Claudio Mele, Benedetto Bozzini*.

"Electrosynthesis of Co/PPy nanocomposites for ORR electrocatalysis: a study based on quasi-in situ X-ray absorption, fluorescence and in situ Raman spectroscopy"
Electrochimica Acta 137 (2014) 535-545.

[2014.04] Benedetto Bozzini*, Patrizia Bocchetta, Alessandra Gianoncelli, Claudio Mele and Maya Kiskinova.

“Electrodeposition of Co/CoO nanoparticles onto graphene for ORR electrocatalysis: a study based on micro-X-ray absorption spectroscopy and X-ray fluorescence mapping”
Acta Chimica Slovenica 61 (2014) 263-271.

[2014.05] Vincenzo Caramia and Benedetto Bozzini*.

“Materials-science aspects of Zinc –air batteries: a review.”
Materials for Renewable and Sustainable Energy 3 (2014) 28 (pages 1-12)

[2014.06] Hossein Hassannejad, Francesco Bogani, Marco Boniardi, Andrea Casaroli, Claudio Mele and Benedetto Bozzini*.

"Electrodeposition and mechanical properties of DLC films on carbon steel"
Transactions of the Institute of Metal Finishing 92 (2014) 183-188.

[2014.07] Deborah Lacitignola*, Benedetto Bozzini and Ivonne Sgura.

"Spatio-temporal organization in a morphochemical electrodeposition model: analysis and numerical simulation of spiral waves"
Acta Applicandæ Mathematicæ 132 (2014) 377-389.

[2014.08] Benedetto Bozzini*, Alessandra Gianoncelli, Patrizia Bocchetta, Simone Dal Zilio, and George Kourousias.

"Fabrication of a Sealed Electrochemical Microcell for in Situ Soft X-ray Microspectroscopy and Testing with in Situ Co-Polypyrrole Composite Electrodeposition for Pt-free Oxygen Electrocatalysis"
Analytical Chemistry 86 (2014) 664-670.

[2014.09] Benedetto Bozzini*, Alessandra Gianoncelli, Claudio Mele, Majid Kazemian Abyaneh, David Jezeršek and Maya Kiskinova.

"Pulse-plating of Mn-Cu-ZnO for supercapacitors: a study based on soft X-ray fluorescence and absorption microspectroscopy"
ChemElectroChem 1 (2014) 1161–1172. *Cover article.*

[2014.10] Benedetto Bozzini*, Alessandra Gianoncelli, Claudio Mele, Ivonne Sgura and Maya Kiskinova.

“Electrodeposition of a Mn-Cu-ZnO hybrid material for supercapacitors: a study based on soft X-ray fluorescence and absorption microspectroscopy”

ChemElectroChem 1 (2014) 392-399.

[2014.11] Benedetto Bozzini*, Amilcare Barca, Francesco Bogani, Paolo Carlino, Claudio Mele, Tiziano Verri and Alessandro Romano.

“Electrodeposition of nanostructured bioactive hydroxyapatite-heparin composite coatings on titanium for dental implant applications”

Journal of Materials Science: Materials in Medicine 25 (2014) 1425-1434.

2013

[2013.01] Benedetto Bozzini*, Matteo Amati, Luca Gregoratti & Maya Kiskinova*.

“In-situ Photoelectron Microspectroscopy and Imaging of Electrochemical Processes at the Electrodes of a Self-Driven Cell”

Scientific Reports 3 (2013) 2848 (5 pages) *Elettra Top Story*

[2013.02] Benedetto Bozzini*, Alessandra Gianoncelli, Claudio Mele, Maya Kiskinova.

“Electrochemical fabrication of nanoporous gold decorated with manganese oxide nanowires from eutectic urea/choline chloride ionic liquid. Part II - Electrodeposition of Au-Mn: A study based on soft X-ray microspectroscopy”

Electrochimica Acta 114 (2013) 889-896. *Selected for Elettra Highlights*

[2013.03] Leonardo Sileo*, Luigi Martiradonna, Paola Arcuti, Giuseppina Monti, Vittorianna Tasco, Marco Del Maschio, Giacomo Pruzzo, Benedetto Bozzini, Luciano Tarricone, Massimo De Vittorio.

"Wireless system for biological signal recording with Gallium Arsenide High Electron Mobility Transistors as sensing elements"

Microelectronic Engineering 111 (2013) 354–359.

[2013.04] Benedetto Bozzini*, Deborah Lacitignola and Ivonne Sgura.

"Spatio-Temporal Organisation in Alloy Electrodeposition: a Morphochemical Mathematical Model and its Experimental Validation"

Journal of Solid State Electrochemistry 17 (2013) 467-479. (Invited paper)

[2013.05] Benedetto Bozzini*, Majid Kazemian Abyaneh, Bertrand Busson, Gian Pietro De Gaudenzi, Luca Gregoratti, Christophe Humbert, Matteo Amati, Claudio Mele, Abderrahmane Tadjeddine.

"Spectroelectrochemical study of the electro-oxidation of ethanol on WC-supported Pt – Part III: Monitoring of electrodeposited-Pt catalyst ageing by in situ Fourier transform infrared spectroscopy, in situ sum frequency generation spectroscopy and ex situ photoelectron spectromicroscopy"

Journal of Power Sources 231 (2013) 6-17.

[2013.06] Claudio Mele, Massimo Catalano, Antonietta Taurino, Benedetto Bozzini*.

"Electrochemical fabrication of nanoporous gold-supported manganese oxide nanowires based on electrodeposition from eutectic urea/choline chloride ionic liquid"

Electrochimica Acta 87 (2013) 918-924.

[2013.07] Benedetto Bozzini*, Francesco Bogani, Giuseppe Giovannelli, Stefano Natali, Gennaro Scarselli and Marco Boniardi.
"Corrosion of Stainless Steel Grades in Molten H₂O/KOH 50% at 120°C: AISI304 Austenitic and 2205 Duplex"
Materials and Corrosion 64 (2013) 988–995.

[2013.08] Benedetto Bozzini*, Alessandra Gianoncelli, Burkhard Kaulich, Claudio Mele Mauro Prasciolu and Maya Kiskinova.
"In situ Soft X-ray Microscopy Study of Fe Interconnect Corrosion in Ionic Liquid-Based Nano-PEMFC Half-Cells"
Fuel Cells (Wiley) 13 (2013) 196-202.

2012

[2012.01] Benedetto Bozzini*, Matteo Amati, Luca Gregoratti, Majid Kazemian Abyaneh, Mauro Prasciolu, Alexander L. Trygub and Maya Kiskinova.
"Micro scale evolution of surface chemistry and morphology of the key components in operating hydrocarbon-fuelled SOFC"
Journal of Physical Chemistry C 116 (2012) 23188–23193.

[2012.02] Benedetto Bozzini, Majid Kazemian Abyaneh, Matteo Amati, Alessandra Gianoncelli, Luca Gregoratti, Burkhard Kaulich, Maya Kiskinova*.
"Soft X-ray Imaging and Spectromicroscopy: New Insights in Chemical State and Morphology of the Key Components in Operating Fuel-Cells"
Chemistry - A European Journal. 18 (2012) 10196-10210.

[2012.03] Hossein Hassannejad, Claudio Mele, Taghi Shahrabi and Benedetto Bozzini*.
"Electrodeposition of Ni/ceria composites: an in situ visible reflectance investigation"
Journal of Solid State Electrochemistry, 16 (2012) 3429-3441. (Invited paper)

[2012.04] Benedetto Bozzini*, Bertrand Busson, Audrey Gayral, Christophe Humbert, Claudio Mele, Catherine Six, Abderrahmane Tadjeddine.
"In situ electrochemical SFG/DFG study of CN⁻ and nitrile adsorption at Au from 1-butyl-1-methyl-pyrrolidinium bis(trifluoromethylsulfonyl) amide ionic liquid ([BMP][TFSA]) containing 4-{2-[1-(2-cyanoethyl)-1,2,3,4-tetrahydroquinolin-6-yl]diazenyl} benzonitrile (CTDB) and K[Au(CN)₂]"
Molecules 17 (2012) 7722-7736. (Invited paper)

[2012.05] Benedetto Bozzini*, Deborah Lacitignola, Claudio Mele, Ivonne Sgura.
"Coupling of Morphology and Chemistry leads to Morphogenesis in Electrochemical Metal Growth: a Review of the Reaction-Diffusion Approach"
Acta Applicandae Mathematicae, 122 (2012) 53-68.

[2012.06] Ivonne Sgura*, Benedetto Bozzini, Deborah Lacitignola.
"Numerical approximation of Turing patterns in electrodeposition by ADI methods"
Journal of Computational and Applied Mathematics, 236 (2012) 4132-4147.

[2012.07] Benedetto Bozzini*, Alessandra Gianoncelli, Burkhard Kaulich, Claudio Mele, Mauro Prasciolu, Maya Kiskinova.

"Electrodeposition of manganese oxide from eutectic urea/choline chloride ionic liquid: An in situ study based on soft X-ray spectromicroscopy and visible reflectivity"
Journal of Power Sources 211 (2012) 71-76.

[2012.08] Benedetto Bozzini*, Silvia Barella, Francesco Bogani, Giuseppe Giovannelli, Stefano Natali, Gennaro Scarselli and Marco Boniardi.
"Corrosion of Stainless Steel Grades in Molten NaOH/KOH Eutectic at 250°C: AISI304 Austenitic and 2205 Duplex"
Materials and Corrosion 63 (2012) 967–978. *Cover article.*

[2012.09] Benedetto Bozzini*, Matteo Amati, Luca Gregoratti, Majid Kazemian, Mauro Prasciolu, Elisabetta Tondo, Alexander L. Trygub and Maya Kiskinova.
"In situ electrochemical X-ray spectromicroscopy investigation of the reduction/reoxidation dynamics of Ni-Cu Solid Oxide Fuel Cell anodic material in contact with a Cr interconnect in 2×10^{-6} mbar O₂"
Journal of Physical Chemistry C 116 (2012) 7243-7248.

[2012.10] G. Giovannelli, S. Natali, L. Zortea, B. Bozzini*.
"An investigation into the surface layers formed on oxidised copper exposed to SO₂ in humid air under hypoxic conditions"
Corrosion Science 57 (2012) 104-113.

[2012.11] Benedetto Bozzini*, Elisabetta Tondo, Patrizio Raffa and Marco Boniardi.
"Electrodeposition of Y₂O₃-Au composite coatings for SOFC interconnects: in situ monitoring of film growth by surface-enhanced Raman spectroscopy"
Transactions of the Institute of Metal Finishing. 90 (2012) 30-37.

[2012.12] Claudio Mele and Benedetto Bozzini*.
"Electrodeposition of Au-Dy₂O₃ composite solid oxide fuel cell catalyst from eutectic urea/choline chloride ionic liquid."
Energies 5 (2012) 5363-5371. (Invited paper)

[2012.13] Benedetto Bozzini*, Matteo Amati, Luca Gregoratti, Claudio Mele, Majid Kazemian Abyaneh, Mauro Prasciolu, Maya Kiskinova.
"In situ photoelectron microspectroscopy during the operation of a single-chamber SOFC"
Electrochemistry Communications 24 (2012) 104-107.

2011

[2011.01] Benedetto Bozzini*, Elisabetta Tondo, Mauro Prasciolu, Matteo Amati, Majid Kazemian Abyaneh, Luca Gregoratti, and Maya Kiskinova*.
"In Situ X-Ray Spectromicroscopy Investigation of the Material Stability of SOFC Metal Interconnects in Operating Electrochemical Cells"
ChemSusChem 4 (2011) 1099-1103. *Selected for Elettra Highlights*

[2011.02] Benedetto Bozzini*, Alessandra Gianoncelli, Burkhard Kaulich, Maya Kiskinova, Claudio Mele, Mauro Prasciolu.
"Corrosion of Ni in 1-butyl-1-methyl-pyrrolidinium bis (trifluoromethylsulfonyl) amide room-temperature ionic liquid: an in-situ X-ray imaging and spectromicroscopy study"
PhysChemChemPhys 13 (2011) 7968-7974.

[2011.03] Benedetto Bozzini*, Matteo Amati, Majid Kazemian Abyaneh, Luca Gregoratti and Maya Kiskinova.

"An investigation into the initial stages of the electrochemical reduction of Cr(VI) at Pt(111), based on scanning photoelectron microscopy."

Journal of Electroanalytical Chemistry. 657 (2011) 113-116.

[2011.04] Benedetto Bozzini*, Bertrand Busson, Christophe Humbert, Claudio Mele, Patrizio Raffa, Abderrahmane Tadjeddine.

"In situ SFG Investigation of Au electrodeposition from [BMP][TFSA], containing $\text{KAu}(\text{CN})_2$ "

Journal of Electroanalytical Chemistry 661 (2011) 20-24.

[2011.05] V. Martina, M.F. De Riccardis*, D. Carbone, P. Rotolo, B. Bozzini, C. Mele.

"Electrodeposition of polyaniline-carbon nanotube composite films for the corrosion protection of austenitic stainless steel PEMFC bipolar plates"

Journal of Nanoparticle Research 13 (2011) 6035-6047.

[2011.06] Benedetto Bozzini*, Claudio Mele, Alessandra Gianoncelli, Burkhard Kaulich, Maya Kiskinova, Mauro Prasciolu.

" In-situ X-ray spectromicroscopy study of bipolar plate material stability for nano-fuel-cells with ionic-liquid electrolyte"

Microelectronic Engineering 88 (2011) 2456-2458.

[2011.07] Benedetto Bozzini*, Matteo Amati, Marco Boniardi, Majid Kazemian Abyaneh, Luca Gregoratti, Maya Kiskinova.

"Study of a proton exchange membrane fuel cells catalyst subjected to anodic operating conditions, by synchrotron-based scanning photoelectron microscopy (SPEM) and high lateral-resolution X-ray photoelectron spectroscopy"

Journal of Power Sources, 196 (2011) 2513-2518.

[2011.08] Benedetto Bozzini*, Paolo Carlino, Claudio Mele.

"Electrochemical behaviour and surface characterisation of Zr exposed to an SBF solution containing glycine, in view of dental implant applications"

Journal of Materials Science - Materials in Medicine 22 (2011) 193-200.

[2011.09] Benedetto Bozzini*, Elisabetta Tondo, Andreas Bund, Adriana Ispas, Claudio Mele.

"Electrodeposition of Au from [EMIm][TFSA] room temperature ionic liquid: an electrochemical and Surface-Enhanced Raman Spectroscopy study"

Journal of Electroanalytical Chemistry - 651 (2011) 1–11.

[2011.10] A. Gianoncelli*, B. Kaulich, M. Kiskinova, M. Prasciolu, L. D.Urzo, B. Bozzini

"An In Situ Electrochemical Soft X-Ray Spectromicroscopy Investigation of Fe Galvanically Coupled to Au"

Micron 42 (2011) 342-347.

[2011.11] Benedetto Bozzini*, Stefano Maci, Ivonne Sgura, Roberto Lo Presti, Elisabetta Simonetti.

"Numerical modelling of MCFC cathode degradation in terms of morphological variations"

International Journal of Hydrogen Energy. 36 (2011) 10403-10413.

[2011.12] Adriana Ispas*, Hisayoshi Matsushima, Andreas Bund, Benedetto Bozzini.

"A study of external magnetic field effects on nickel-iron alloy electrodeposition, based on linear and non-linear differential AC electrochemical response measurements"
Journal of Electroanalytical Chemistry, 651 (2011) 197-203.

[2011.13] M.F. De Riccardis*, V. Martina, D. Carbone, M. Re, E. Pesce, R. Terzi, B. Bozzini.
"Incorporation of montmorillonite in epoxy to obtain a protective layer prepared by electrophoretic deposition"
Materials Chemistry and Physics 125 (2011) 271-276.

[2011.14] Benedetto Bozzini*, Marco Guerrieri, Flavio Capotondi, Ivonne Sgura, Elisabetta Tondo.
"Electrochemical preparation of particles for X-ray free electron laser based diffractive imaging"
International Journal of Electrochemical Science 6 (2011) 2609-2631.

[2011.15] Benedetto Bozzini*, Deborah Lacitignola, Ivonne Sgura.
"Frequency as the greenest additive for metal plating: mathematical and experimental study of forcing voltage effects on electrochemical growth dynamics"
International Journal of Electrochemical Science - 6 (2011) 4553-4571.

[2011.16] Benedetto Bozzini, Deborah Lacitignola, Ivonne Sgura*.
"Travelling Waves in a Reaction-Diffusion Model for Electrodeposition"
Mathematics and Computers in Simulation 81 (2011) 1027-1044.

2010

[2010.01] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Abderrahmane Tadjeddine
"In situ spectroelectrochemical measurements during the electro-oxidation of ethanol on WC-supported Pt-black. Part II - Monitoring of catalyst aging by in situ Fourier transform infrared spectroscopy "
Journal of Power Sources 195 (2010) 7968-7973.

[2010.02] Claudio Mele*, Benedetto Bozzini
"Localised corrosion processes of austenitic stainless steel PEMFC bipolar plates"
Journal of Power Sources. 195 (2010) 3590-3596.

[2010.03] Benedetto Bozzini*, Alessandra Gianoncelli, Burkhard Kaulich, Maya Kiskinova, Mauro Prasciolu, and Ivonne Sgura.
"Metallic Plate Corrosion and Uptake of Corrosion Products by Nafion in Polymer Electrolyte Membrane Fuel Cells"
ChemSusChem, 7 (2010) 846-850. *Selected for Eletttra Highlights*

[2010.04] Antonio Serra*, Daniela Manno, Emanuela Filippo, Rosa Vitale, Giuseppe Sarcinelli, Lucio Calcagnile, Gianluca Quarta, Giuseppe Giovannelli, Benedetto Bozzini, Also Siciliano.
"Unusual coin from the Parabita hoard: combined use of surface and micro-analytical techniques for its characterisation."
Journal of Cultural Heritage, 11 (2010) 233-238.

[2010.05] Benedetto Bozzini*, Andreas Bund, Bertrand Busson, Christophe Humbert, Adriana Ispas, Claudio Mele, Abderrahmane Tadjeddine.
"An SFG/DFG investigation of CN⁻ adsorption at an Au electrode in 1-butyl-1-methylpyrrolidinium bis (trifluoromethylsulfonyl) amide ionic liquid"

Electrochemistry Communications 12 (2010) 56-60.

[2010.06] Elisabetta Tondo, Claudio Mele and Benedetto Bozzini*.

"Silver electrodeposition from water-acetonitrile mixed solvents.

Part III – An in situ investigation by optical second harmonic generation spectroscopy."

Journal of Solid State Electrochemistry. 14 (2010) 989-995.

[2010.07] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Bertrand Busson, Christophe Humbert, Catherine Six, Audray Gayral, Abderrahmane Tadjedine.

"In situ spectroelectrochemical measurements during the electro-oxidation of ethanol on WC-supported Pt-black, based on sum-frequency generation spectroscopy"

Journal of Power Sources, 195 (2010) 4119-4123.

[2010.08] Elisabetta Tondo, Marco Boniardi, Donato Cannoletta, Maria Federica De Riccardis, Benedetto Bozzini*.

"Electrodeposition of yttria/cobalt oxide and yttria/gold coatings onto ferritic stainless steel for SOFC interconnects"

Journal of Power Sources 195 (2010) 4772-4778.

[2010.09] Benedetto Bozzini*, Deborah Lacitignola*, Ivonne Sgura*.

"Morphological Spatial Patterns in a Reaction Diffusion Model for Metal Growth"

Mathematical Biosciences and Engineering 7 (2010) 237-258.

[2010.10] Giuseppe Giovannelli, Lucia D'Urzo, Giovanna Maggiulli, Stefano Natali, Cosimo Pagliara, Ivonne Sgura and Benedetto Bozzini*.

"Cathodic Chloride Extraction Treatment of a Late Bronze-Age Artefact affected by Bronze Disease in Room-Temperature Ionic Liquid 1-Ethyl -3-methylimidazolium bis (trifluoromethanesulfonyl) imide (EMI-TFSI)"

Journal of Solid State Electrochemistry. 14 (2010) 479-494.

[2010.11] Benedetto Bozzini*, Claudio Mele, Elisabetta Tondo

"A SERS investigation of Cu electrodeposition in the presence of the model leveller 4-{2-[1-(2-cyanoethyl)-1,2,3,4-tetrahydroquinolin-6-yl]diazonyl} benzonitrile"

Electrochimica Acta 55 (2010) 3279-3285.

[2010.12] Benedetto Bozzini*, Lucia D'Urzo, Claudio Mele, Bertrand Busson and Abderrahmane Tadjedine.

"Au electrodeposition in presence of self-assembling organic: *in situ* study by sum frequency generation and surface enhanced Raman spectroscopy"

Transactions of the Institute of Metal Finishing, 88 (2010) 130-143.

2009

[2009.01] Benedetto Bozzini*, Lucia D'Urzo, Alessandra Gianoncelli, Burkhard Kaulich, Mauro Prasciolu, Ivonne Sgura, Elisabetta Tondo and Maya Kiskinova.

"An in Situ Synchrotron-Based Soft X-ray Microscopy Investigation of Ni Electrodeposition in a Thin-Layer Cell"

Journal of Physical Chemistry C. 113 (2009) 9783-9787.

[2009.02] Elisabetta Tondo, Marco Boniardi, Donato Cannoletta, Marcella D'Elia, Lucia D'Urzo and Benedetto Bozzini*.

"Electrodeposition of NiO/YSZ from hydroalcoholic solutions containing Chitosan"
Surface & Coatings Technology. 203 (2009) 3427-3434.

[2009.03] Benedetto Bozzini*, Lucia D'Urzo.

"An in-situ SERS study of the interfacial behaviour of Coumarin during the electrodeposition of Cobalt"

International Journal of Electrochemical Science 4 (2009) 1028-1051.

[2009.04] Benedetto Bozzini*, Giulio Cerullo, Lucia D'Urzo, Dario Polli.

"In situ femtosecond spectroelectrochemistry of Au(111) in an aqueous chloride solution"
Electrochemistry Communications. 11 (2009) 799-803.

[2009.05] M.F. De Riccardis*, D. Carbone, V. Martina, M. Re, B. Bozzini, L. D'Urzo.

"Study on the adhesion mechanism of electrodeposited nickel clusters on carbon substrates"
Applied Surface Science. 255 (2009) 4309-4315.

[2009.06] Benedetto Bozzini*, Matteo Dalmiglio, Gian Pietro De Gaudenzi, Lucia D'Urzo, Luca Gregoratti.

"An investigation of the corrosion of WC-Co cermets in CN^- -containing aqueous solutions.

Part II - Synchrotron-based high lateral-resolution XPS study"

Corrosion Science 51 (2009) 1675-1678.

[2009.07] Adriana Ispas*, Hisayoshi Matsushima, Andreas Bund and Benedetto Bozzini.

Nucleation and growth of thin nickel layers under the influence of a magnetic field.

Journal of Electroanalytical Chemistry, 626 (2009) 174-182.

[2009.08] Claudio Mele*, Benedetto Bozzini.

"Silver Electrodeposition from water-acetonitrile mixed solvents in the presence of tetrabutylammonium perchlorate. Part II - A SERS study of acetonitrile reactivity and tetrabutylammonium adsorption"

Journal of Solid State Electrochemistry, 13 (2009) 1553-1559.

[2009.09] Benedetto Bozzini and Ivonne Sgura*.

"A mathematical model for the corrosion of metallic bipolar plates in PEM fuel cells: numerical and experimental issues"

SIAM Journal on Applied Mathematics 70 (2009) Vol. No.2, pp. 579-599.

[2009.10] Benedetto Bozzini*, Lucia D'Urzo, Deborah Lacitignola, Claudio Mele, Ivonne Sgura, Elisabetta Tondo.

"An investigation into the dynamics of Au electrodeposition based on the analysis of SERS spectral time series"

Transactions of the Institute of Metal Finishing. 87 (2009) 193-200.

[2009.11] Benedetto Bozzini*, Silvia Maffi, Lucia D'Urzo and Luisa Peraldo Bicelli.

"Thermodynamics of the photocorrosion of n-ZnSe and p-ZnTe"

Corrosion Reviews 27 (2009) 83-115.

[2009.12] Lucia D'Urzo*, Benedetto Bozzini.

"Corrosion of electrodeposited copper by exposure to volatile organic compounds"

Journal of Materials Science: Materials in Electronics. 20 (2009) 666-670.

[2009.12] Benedetto Bozzini, Lucia D'Urzo*, Marcello Della Pia, Kuan Chich Yu and Qin Qin Yu.
"A novel selective removal process of Cobalt Silicide"
Journal of Materials Science: Materials in Electronics. 20 (2009) 1164–1171.

[2009.13] Claudio Mele*, Sandra Rondinini, Lucia D'Urzo, Vincenzo Romanello, Elisabetta Tondo, Alessandro Minguzzi, Alberto Vertova and Benedetto Bozzini.
"Silver electrodeposition from water-acetonitrile mixed solvents and mixed electrolytes, in the presence of tetrabutylammonium perchlorate. Part I - Electrochemical nucleation on glassy carbon electrode."
Journal of Solid State Electrochemistry. 13 (2009) 1577-1584.

[2009.14] Lucia D'Urzo*, Benedetto Bozzini.
"A SERS study of the galvanostatic sequence used for the electrochemical deposition of copper from baths employed in the fabrication of interconnects"
Journal of Materials Science: Materials in Electronics. 20 (2009) 217-222.

2008

[2008.01] Benedetto Bozzini*, Lucia D'Urzo, Alessandra Gianoncelli, Burkhard Kaulich, Maya Kiskinova, Mauro Prasciolu, Abderrahmane Tadjeddine.
"In situ soft X-ray dynamic microscopy of electrochemical processes"
Electrochemistry Communications 10 (2008) 1680-1683.

[2008.02] Benedetto Bozzini*, Lucia D'Urzo, Marilena Re, Federica De Riccardis.
"Electrodeposition of Cu from acidic sulphate solutions containing cetyltrimethylammonium bromide (CTAB)"
Journal of Applied Electrochemistry 38 (2008) 1561-1569.

[2008.03] Benedetto Bozzini*, Lucia D'Urzo, Luca Gregoratti, Abderrahmane Tadjeddine.
"Study of Surface Compositional Waves in Electrodeposited Au-Cu Alloys by Synchrotron-Based High Lateral-Resolution Photoemission Spectroscopy"
Journal of the Electrochemical Society 155 (2008) F165-F168.

[2008.04] Hisayoshi Matsushima*, Adriana Ispas, Andreas Bund, Benedetto Bozzini.
"Magnetic field effects on the initial stages of electrodeposition processes"
Journal of Electroanalytical Chemistry 615 (2008) 191-196.

[2008.05] Benedetto Bozzini*, Lucia D'Urzo, Claudio Mele.
"Electrochemical fabrication of nano- and micrometric Cu particles: in situ investigation by electroreflectance and optical second harmonic generation"
Transactions of the Institute of Metal Finishing 86 (2008) 267-274.

[2008.06] Benedetto Bozzini*, Lucia D'Urzo, Chang-Jian Lin.
"An in situ optical second harmonic generation study of carbon steel in contact with an alkaline aqueous solution containing glutamic acid"
Materials and Corrosion 59 (2008) 303-305.

[2008.07] Benedetto Bozzini*, Lucia D'Urzo, Claudio Mele and Vincenzo Romanello.

" A SERS Investigation of Cyanide Adsorption and Reactivity during the Electrodeposition of Gold, Silver, and Copper from Aqueous Cyanocomplex Solutions"
Journal of Physical Chemistry C 112 (2008) 6352-6358.

[2008.08] Benedetto Bozzini, Ivonne Sgura*.

"A computational approach to morphological control in electrodeposition by molecular targeting"
Computational Materials Science 42 (2008) 394-406.

[2008.09] Benedetto Bozzini*, Lucia D'Urzo, Sheng-Juang Huo, Wen-Bin Cai.

"ATR FTIR study of levellers for Cu electrodeposition from acidic sulphate solution"
Transactions of the Institute of Metal Finishing 86 (2008) 41-50.

[2008.10] Benedetto Bozzini*, Lucia D'Urzo, Claudio Mele, Bertrand Busson, Christophe Humbert and Abderrahmane Tadjeddine.

"Doubly Resonant Sum frequency Generation Spectroscopy of Adsorbates at an Electrochemical Interface"

Journal of Physical Chemistry C 112 (2008) 11791-11795.

[2008.11] Benedetto Bozzini*, Paolo Carlino, Lucia D'Urzo, Valentina Pepe, Claudio Mele, Francesco Venturo.

"An electrochemical impedance investigation of the behaviour of anodically oxidised titanium in human plasma and cognate fluids, relevant to dental applications"

Journal of Materials Science: Materials in Medicine 19 (2008) 3443-3453.

[2008.12] Benedetto Bozzini*, Bertrand Busson, Claudio Mele, Abderrahmane Tadjeddine.

"SFG and DFG investigation of Au(111), Au(210), polycrystalline Au, Au-Cu and Au-Ag-Cu electrodes in contact with aqueous solutions containing KCN and 4-cyanopyridine"

Journal of Applied Electrochemistry 38 (2008) 897-906.

[2008.13] Benedetto Bozzini*, Bertrand Busson, Gian Pietro De Gaudenzi, Claudio Mele, Abderrahmane Tadjeddine.

"An SFG and DFG investigation of Au(111), Au(100), Au(110) and Au(210) electrodes in contact with aqueous solutions containing KCN"

Journal of Solid State Electrochemistry 12 (2008) 303-313.

[2008.14] Benedetto Bozzini, Ivonne Sgura*.

" A class of mathematical models for alternated-current electrochemical measurements accounting for non-linear effects"

Nonlinear Analysis: Real World Applications 9 (2008) 412-429.

[2008.15] Luisa Peraldo Bicelli, Benedetto Bozzini*, Claudio Mele, Lucia D'Urzo.

"A Review of Nanosstructural Aspects of Metal Electrodeposition"

International Journal of Electrochemical Science 3 (2008) 356-408.

2007

[2007.01] Benedetto Bozzini*, Lucia D'Urzo, Claudio Mele.

"A novel polymeric leveller for the electrodeposition of copper from acidic sulphate bath: A spectroelectrochemical investigation"

Electrochimica Acta 52 (2007) 4767-4777.

[2007.02] Benedetto Bozzini*, Bertrand Busson, Gian Pietro De Gaudenzi, Lucia D'Urzo, Claudio Mele, Abderrahmane Tadjeddine.

"An in situ SFG and SERS investigation into the electrodeposition of Au from $\text{Au}(\text{CN})_2^-$ and $\text{Au}(\text{CN})_4^-$ solutions"

Journal of Electroanalytical Chemistry 602 (2007) 61-69.

[2007.03] Benedetto Bozzini*, Bertrand Busson, Gian Pietro De Gaudenzi, Lucia D'Urzo, Claudio Mele, Abderrahmane Tadjeddine.

"An SFG and ERS investigation of the corrosion of $\text{CoW}_{0.013}\text{Co}_{0.001}$ alloys and WC-Co cermets in CN^- -containing aqueous solutions"

Corrosion Science 49 (2007) 2392-2405.

[2007.04] Benedetto Bozzini*, Claudio Mele, Vincenzo Romanello.

"An in situ FT-IR evaluation of candidate organic corrosion inhibitors for carbon steel in contact with alkaline aqueous solutions"

Materials and Corrosion 58 (2007) 362-368.

[2007.05] Benedetto Bozzini*, Vincenzo Romanello, Claudio Mele.

"A SERS investigation of the electrodeposition of Au in a phosphate solution"

Surface & Coatings Technology 201 (2007) 6267-6272.

[2007.06] Benedetto Bozzini*, Sheelagh Anne Campbell and Lucia D'Urzo.

"Electrodeposition of Cu onto Pt in presence of egg ovalbumin"

Transactions of the Institute of Metal Finishing 85 (2007) 123-134.

[2007.07] Benedetto Bozzini*, Bertrand Busson, Gian Pietro De Gaudenzi, Claudio Mele, Abderrahmane Tadjeddine.

"An SFG and DFG investigation of polycrystalline Au, Au-Cu and Au-Ag-Cu electrodes in contact with aqueous solutions containing KCN"

Journal of Alloys and Compounds 427 (2007) 341-349.

[2007.08] Benedetto Bozzini*, Giuseppe Giovannelli, Claudio Mele.

" Electrochemical dynamics and structure of the Ag/AgCl interface in chloride-containing aqueous solutions"

Surface & Coatings Technology 201 (2007) 4619-4627.

[2007.09] Benedetto Bozzini*, Vincenzo Romanello, Claudio Mele and Francesco Bogani.

"A SERS investigation of carbon steel in contact with aqueous solutions containing BenzylDiMethylPhenylAmmonium Chloride"

Materials and Corrosion 58 (2007) 20-24.

2006

[2006.01] Giuseppe Giovannelli, Stefano Natali and Benedetto Bozzini*.

"Silver coated lead coins: An appraisal of ancient technology"

Journal of Applied Electrochemistry 36 (2006) 951-956.

[2006.02] Benedetto Bozzini, Lucia D'Urzo*, Claudio Mele, Vincenzo Romanello.

" Electrodeposition of Cu from acidic sulphate solutions in the presence of polyethylene glycol and chloride ions"

Journal of Materials Science: Materials in Electronics 17 (2006) 915-923.

[2006.03] Benedetto Bozzini*, Claudio Mele, Lucia D'Urzo, Giuseppe Giovannelli and Stefano Natali.

"Electrodeposition of Cu from Acidic Sulphate Solutions in the Presence of PEG: An Electrochemical and Spectroelectrochemical Investigation – Part I"

Journal of Applied Electrochemistry 36 (2006) 789-800.

[2006.04] Benedetto Bozzini*, Claudio Mele, Vincenzo Romanello.

"Time-dependent in situ SERS study of CN⁻ adsorbed on gold"

Journal of Electroanalytical Chemistry 592 (2006) 25-30.

[2006.05] Benedetto Bozzini* and Ivonne Sgura.

"A non-linear AC spectrometry study of the electrodeposition of Cu from acidic sulphate solutions in the presence of PEG"

Journal of Applied Electrochemistry 36 (2006) 983-989.

[2006.06] Benedetto Bozzini*, Claudio Mele, Lucia D'Urzo, Vincenzo Romanello and Giuseppe Giovannelli.

"Study on levellers for Cu electrodeposition from acidic sulphate solution: an *in situ* spectroelectrochemical approach"

Transactions of the Institute of Metal Finishing 84 (2006) 177-187.

[2006.07] Benedetto Bozzini*, Vincenzo Romanello, Gian Pietro De Gaudenzi and Claudio Mele.

"Controlled corrosion of micrometric and submicrometric metal powders in fluidised bed reactor"

Transactions of the Institute of Metal Finishing 84 (2006) 154-158.

[2006.08] Benedetto Bozzini*, Claudio Mele, Lucia D'Urzo, Vincenzo Romanello.

"An Electrochemical and in situ SERS Study of Cu Electrodeposition from Acidic Sulphate Solutions in the Presence of 3-Diethylamino-7-(4-dimethylaminophenylazo)-5-phenylphenazinium chloride (Janus Green B)"

Journal of Applied Electrochemistry 36 (2006) 973-981.

[2006.09] Benedetto Bozzini*, Lucia D'Urzo, Claudio Mele and Vincenzo Romanello.

"Electrodeposition of Cu from acidic sulphate solutions in presence of Bis-(3-sulfopropyl)-disulphide (SPS)"

Transactions of the Institute of Metal Finishing 84 (2006) 83-93.

[2006.10] Benedetto Bozzini*, Lucia D'Urzo, Vincenzo Romanello and Claudio Mele.

"Electrodeposition of Cu from Acidic Sulfate Solutions in the Presence of Bis-(3-sulfopropyl)-disulfide (SPS) and Chloride Ions"

Journal of the Electrochemical Society 153 (2006) C254-C257.

[2006.11] Benedetto Bozzini*, Claudio Mele and Lucia D'Urzo.

"Electrodeposition of Cu from Acidic Sulphate Solutions in the Presence of PEG - Part II Visible Electroreflectance Spectroscopy Measurements during Electrodeposition"

Journal of Applied Electrochemistry 36 (2006) 87-96.

[2006.12] Benedetto Bozzini*, Giuseppe Giovannelli, Claudio Mele, Francesca Brunella, Sara Goidanich and Pietro Pedferri.

"An investigation into the corrosion of Ag coins from the Greek colonies of Southern Italy. Part I: An in situ FT-IR and ERS investigation of the behaviour of Ag in contact with aqueous solutions containing 4-cyanopyridine"

Corrosion Science 48 (2006) 193-208.

2005

[2005.01] Benedetto Bozzini*, Gian Pietro De Gaudenzi and Claudio Mele.

"Corrosion Behaviour of $\text{CoW}_{0.013}\text{C}_{0.001}$ in aqueous acidic sulphate solutions containing sodium lauryl sulphate and sodium citrate"

Corrosion Engineering, Science and Technology 40 (2005) 290-300.

[2005.02] Benedetto Bozzini*, Lucia D'Urzo and Claudio Mele.

"Electrodeposition of Cu from Cyanoalkaline Solutions in the Presence of CPC and PEG"

Journal of the Electrochemical Society 152 (2005) C255-C264.

[2005.03] Giuseppe Giovannelli, Stefano Natali, Benedetto Bozzini, Aldo Siciliano, Giuseppe Sarcinelli, Rosa Vitale.

"MICROSTRUCTURAL CHARACTERIZATION OF EARLY WESTERN GREEK INCUSE COINS"

Archaeometry 47 (2005) 817-833.

[2005.04] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Claudio Mele.

"Electrochemical behaviour of alloy $\text{CoW}_{0.013}\text{C}_{0.001}$ in acidic sulphate solutions."

Corrosion Engineering, Science and Technology 40 (2005) 149-157.

[2005.05] Ivonne Sgura, Benedetto Bozzini*.

"Numerical issues related to the modelling of electrochemical impedance data by non-linear least-squares"

International Journal of Non-Linear Mechanics 40 (2005) 557-570.

2004

[2004.01] Valentin M. Kozlov, Benedetto Bozzini*, Luisa Peraldo Bicelli.

"Formation of GaAs by annealing of two-layer Ga-As electrodeposits"

Journal of Alloys and Compounds 379 (2004) 209-215.

[2004.02] Benedetto Bozzini*, Claudio Mele, Adberrahmane Tadjeddine.

"Electrochemical adsorption of cyanide on Ag(111) in the presence of cetylpyridinium chloride"

Journal of Crystal Growth 271 (2004) 274-286.

[2004.03] Benedetto Bozzini*, Lucia D'Urzo, Giuseppe Giovannelli and Claudio Mele.

" An in situ Raman Investigation of Organic Species Incorporated in Cu Layers Electrodeposited from PEG-containing Acidic Sulphate and Cyanoalkaline Electrolytes"

Transactions of the Institute of Metal Finishing 82 (2004) 118-122.

[2004.04] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Claudio Mele.

"A SERS investigation of the electrodeposition of Ag–Au alloys from free-cyanide solutions – part II"

Journal of Electroanalytical Chemistry 570 (2004) 29-34.

[2004.05] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Claudio Mele.

"A SERS investigation of the electrodeposition of Ag–Au alloys from free-cyanide solutions"

Journal of Electroanalytical Chemistry 563 (2004) 133-143.

[2004.06] Francisco Huerta, Claudio Mele, Benedetto Bozzini, Emilia Morallón*.

"Voltammetric and in situ FTIRS study on CN⁻ and Au(CN)_x complexes at the polycrystalline gold surface in citrate medium."

Journal of Electroanalytical Chemistry 569 (2004) 53-60.

[2004.07] Benedetto Bozzini*, Claudio Mele, Ameriga Fanigliulo, Bertrand Busson, Frank Vidal, Abderrahmane Tadjeddine.

"An SFG investigation of Au(111) and Au(210) electrodes in aqueous solutions containing KCN and cetylpyridinium chloride."

Journal of Electroanalytical Chemistry 574 (2004) 85-94.

[2004.08] Benedetto Bozzini*, Claudio Mele, Ivonne Sgura.

"On the observation of inductive high-frequency impedance behaviour during the electrodeposition of Au-Sn alloys."

Journal of Applied Electrochemistry 34 (2004) 277-281.

[2004.09] Benedetto Bozzini*, Pietro Luigi Cavallotti, Ameriga Fanigliulo, Giuseppe Giovannelli, Claudio Mele, Stefano Natali.

"Electrodeposition of white gold alloys: an electrochemical, spectroelectrochemical and structural study of the electrodeposition of Au-Sn alloys in the presence of 4-cyanopyridine"

Journal of Solid State Electrochemistry 8 (2004) 147-158.

[2004.10] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Ameriga Fanigliulo, Claudio Mele.

"Electrochemical oxidation of WC in acidic sulphate solution"

Corrosion Science 46 (2004) 453-469.

[2004.11] Valentin M. Kozlov, Benedetto Bozzini*, Luisa Peraldo Bicelli.

"Preparation of InAs by annealing of two-layer In–As electrodeposits"

Journal of Alloys and Compounds 366 (2004) 152-160.

[2004.12] Silvia Maffi*, Benedetto Bozzini, Ameriga Fanigliulo, Luisa Peraldo Bicelli.

"A photoelectrochemical and spectroscopic investigation of oxide layers on AISI 301 in sulfate solutions at different pH"

Journal of Applied Electrochemistry 34 (2004) 71-77.

2003

[2003.01] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Claudio Mele.

"An in-situ FT-IR investigation of the anodic behaviour of WC-Co hardmetal."

Materials and Corrosion 54 (2003) 694-696.

[2003.02] Ameriga Fanigliulo, Claudio Mele, Benedetto Bozzini*.
“An Electrochemical and in-situ SERS Study of Au Electrodeposition from a Thiourea Solution.”
Transactions of the Institute of Metal Finishing 81 (2003) 75-78.

[2003.03] Benedetto Bozzini*, Marco Enrico Ricotti, Marco Boniardi, Claudio Mele.
“Evaluation of erosion–corrosion in multiphase flow via CFD and experimental analysis.”
Wear 255 (2003) 237-245.

[2003.04] Benedetto Bozzini*, Ameriga Fanigliulo, Claudio Mele.
“An Electrochemical and Spectroelectrochemical Study of the Electrodeposition of Au from $\text{KAu}(\text{CN})_2$ Solutions containing 4-Cyanopyridine and cetylpyridinium Chloride”
Transactions of the Institute of Metal Finishing 81 (2003) 59-67.

[2003.05] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Ameriga Fanigliulo and Claudio Mele.
"Anodic behaviour of WC-Co type hardmetal"
Materials and Corrosion 54 (2003) 295-303.

[2003.06] B. Bozzini*, A. Fanigliulo, E. Lanzoni, C. Mele.
“Mechanical and tribological characterisation of electrodeposited Au-Cu-Cd”
Wear 255 (2003) 903-909.

[2003.07] Ameriga Fanigliulo, Benedetto Bozzini*.
“Damage to gold surfaces induced by cathodic polarisation”
Corrosion Engineering, Science and Technology 38 (2003) 228-234.

[2003.08] Benedetto Bozzini*, Ameriga Fanigliulo, Giuseppe Giovannelli, Stefano Natali, Claudio Mele.
“Electrodeposition of Au–Sn alloys from acid Au(III) baths”
Journal of Applied Electrochemistry 33 (2003) 747-754.

[2003.09] Benedetto Bozzini*, Carla Martini, Ameriga Fanigliulo, Francesco Bogani.
“A tribological study of electrodeposited gold-copper-cadmium”
Materials Chemistry and Physics 101 (2003) 42-47.

[2003.10] Benedetto Bozzini*, Pietro Luigi Cavallotti, Jean-Pierre Celis, Ameriga Fanigliulo.
“Anodic behaviour of amorphous NiP/tin multilayers in an acidic chloride solution”
Corrosion Science 45 (2003) 1161-1171.

2002

[2002.01] Ameriga Fanigliulo*, Benedetto Bozzini.
“An electrochemical and SERS study of benzyldimethylphenylammonium chloride at a polycrystalline gold electrode”
Electrochimica Acta 47 (2002) 4511-4521.

[2002.02] Ameriga Fanigliulo, Benedetto Bozzini*.
“An electrochemical and in situ Raman investigation of the electrodeposition of gold from a sulphite electrolyte”
Transactions of the Institute of Metal Finishing 80 (2002) 132-136.

- [2002.03] Ameriga Fanigliulo*, Benedetto Bozzini.
“In-situ SERS experiments during the electrodeposition of gold in the presence of benzyldimethylphenylammonium chloride”
Journal of Electroanalytical Chemistry 530 (2002) 53-62.
- [2002.04] Benedetto Bozzini*, Giuseppe Giovannelli, Stefano Natali, Ameriga Fanigliulo, Pietro Luigi Cavallotti.
“Crystallographic structure of gold films electrodeposited at low current densities”
Journal of Materials Science 37 (2002) 3903-3913.
- [2002.05] Benedetto Bozzini*, Ameriga Fanigliulo.
“Effects of TI on the electrocrystallisation of thick Au layers from $\text{KAu}(\text{CN})_2$ solutions”
Journal of Crystal Growth 243 (2002) 190-203.
- [2002.06] Ameriga Fanigliulo, Benedetto Bozzini*.
“Raman Spectroscopy of Organic Species Incorporated into Electrodeposited Gold Layers”
Transactions of the Institute of Metal Finishing 80 (2002) 25-28.
- [2002.07] Benedetto Bozzini*, Gian Pietro De Gaudenzi, Marco Serra, Ameriga Fanigliulo, Francesco Bogani.
“Corrosion behaviour of WC-Co based hardmetal in neutral chloride and acid sulphate media”
Materials and Corrosion 53 (2002) 328-334.
- [2002.08] Benedetto Bozzini*, Egidijus Griskonis, Ameriga Fanigliulo, Algirdas Sulcius.
“Electrodeposition of Zn–Mn alloys in the presence of thiocarbamide”
Surface & Coatings Technology 154 (2002) 294-303.
- [2002.09] Silvia Maffi*, Cristina Lenardi, Benedetto Bozzini, Luisa Peraldo Bicelli.
“Photoelectrochemical imaging of non-planar surfaces: the influence of geometrical and optical factors on image formation”
Measurement Science & Technology 13 (2002) 1398-1403.
- [2002.10] Benedetto Bozzini*, Ameriga Fanigliulo.
“An in situ spectroelectrochemical Raman investigation of Au electrodeposition and electrodisolution in $\text{KAu}(\text{CN})_2$ solution”
Journal of Applied Electrochemistry 32 (2002) 1043-1048.
- [2002.11] Benedetto Bozzini*, Giuseppe Giovannelli, Stefano Natali, Marco Serra, Ameriga Fanigliulo.
“Electrodeposition of Au-Sn alloys from alkaline baths”
Journal of Applied Electrochemistry 32 (2002) 165-171.
- [2002.12] Benedetto Bozzini*, Ameriga Fanigliulo.
“An electrochemical investigation into the galvanic corrosion of carbon steel coupled to carbon fibres”
Materials and Corrosion 53 (2002) 875-885.
- [2002.13] Benedetto Bozzini*, Cristina Lenardi, Marco Serra, Ameriga Fanigliulo.
“Electrochemical and X-ray photoelectron spectroscopy investigation into anodic behavior of electroless Ni-9.5 wt-%P in acidic chloride environment”
British Corrosion Journal 37 (2002) 173-181.

[2002.14] Benedetto Bozzini*, Emanuela Cerri.
“Numerical reliability of hot working processing maps”
Materials Science and Engineering A 328 (2002) 344-347.

[2002.15] Benedetto Bozzini*, Pietro Luigi Cavallotti, Giuseppe Giovannelli.
“Electrokinetic behavior of gold alloy and composite plating baths”
Metal Finishing 100 (2002) 50-60.

[2002.16] Benedetto Bozzini*, Ameriga Fanigliulo, Dario Picononi.
“Observation of Pentagonal Crystallites in Electrodeposited Gold and Copper”
Practical Metallography 49 (2002) 580-586.

2001

[2001.01] Benedetto Bozzini*, Ameriga Fanigliulo, Marco Serra.
“Electrodeposition of star-shaped gold crystallites”
Journal of Crystal Growth 231 (2001) 589-598.

[2001.02] Benedetto Bozzini*, Marco Boniardi, Ameriga Fanigliulo, Francesco Bogani.
“Tribological properties of electroless Ni-P/diamond composite films”
Materials Research Bulletin 36 (2001) 1889-1902.

[2001.03] Benedetto Bozzini*, Pietro Luigi Cavallotti, Giuseppe Parisi.
“Corrosion and erosion-corrosion of electrodeposited Ni-P/B₄C composites”
British Corrosion Journal 36 (2001) 49-55.

[2001.04] Benedetto Bozzini.
“Electrochemical pore-filling of ceramics with metal fibres”
Journal of Materials Science Letters 20 (2001) 867-868.

[2001.05] Benedetto Bozzini*, Egidijus Griskonis, Algirdas Sulcius, Pietro Luigi Cavallotti.
“Influence of selenium-containing additives on the electrodeposition of zinc-manganese alloys”
Plating and Surface Finishing 88 (2001) 64-72.

[2001.06] Benedetto Bozzini*, Pietro Luigi Cavallotti.
“Effects of cathodic hydrogen evolution on electrodeposited Au-Cu-Cd alloys”
Journal of the Electrochemical Society 148 (2001) C231-C235.

[2001.07] Benedetto Bozzini*, Pietro Luigi Cavallotti.
“Electrodeposition and characterization of Au-Cu-Cd alloys”
Journal of Applied Electrochemistry 31 (2001) 897-903.

[2001.08] Benedetto Bozzini*, Pietro Luigi Cavallotti.
“Morphology evolution of Au/B₄C electrodeposited composites”
Practical Metallography 38 (2001) 88-111.

[2001.09] Benedetto Bozzini*, Marco Boniardi.
“A model for the evaluation of indentation crack arrest fracture toughness of supported films”
Journal of Materials Science 36 (2001) 511-518.

[2001.10] Benedetto Bozzini*, Marco Serra, Ameriga Fanigliulo.
“Electrochemical behaviour of baths for the codeposition of Au/B₄C composites”
Transactions of the Institute of Metal Finishing 79 (2001) 133-135.

2000

[2000.01] Benedetto Bozzini*, Pietro Luigi Cavallotti.
“Hydrodynamic effects in the electrodeposition of Au-Cu-Cd alloys: an experimental and numerical study”
Transactions of the Institute of Metal Finishing 78 (2000) 227-230.

[2000.02] Benedetto Bozzini.
“Morphological Artefacts in EDX analyses of electrodeposited Zn-Mn films”
Transactions of the Institute of Metal Finishing 78 (2000) 93-95.

[2000.03] B. Bozzini*, V.E. Sidorov, A.S. Dovgopol, J.P. Birukov.
“Magnetic susceptibility of electroless Ni₈₄P₁₆ and Ni₈₄P₁₆-B₄C”
International Journal of Inorganic Materials 2 (2000) 437-442.

[2000.04] Benedetto Bozzini*, Giuseppe Giovannelli, Stefano Natali.
“Metastable Structures in Electrodeposited AuCu”
Scripta Materialia 43 (2000) 877-880.

[2000.05] B. Bozzini*, M.A. Baker, P.L. Cavallotti, E. Cerri, C. Lenardi.
“Electrodeposition of ZnTe for photovoltaic cells”
Thin Solid Films 361-362 (2000) 388-395.

[2000.06] Benedetto Bozzini*, Cristina Lenardi, Nicola Lovergine.
“Electrodeposition of stoichiometric polycrystalline ZnTe on n⁺-GaAs and Ni-P”
Materials Chemistry and Physics 66 (2000) 219-228.

[2000.07] Benedetto Bozzini*, Giuseppe Giovannelli, Pietro Luigi Cavallotti.
“An investigation into the electrodeposition of AuCu-matrix particulate composites. Part II: Baths not containing free cyanide”
Journal of Applied Electrochemistry 30 (2000) 591-594.

[2000.08] Benedetto Bozzini*, Bruno Brevaglieri, Pietro Luigi Cavallotti, Giuseppe Giovannelli, Stefano Natali.
“Hydrodynamic problems related to the electrodeposition of AuCu/B₄C composites”
Electrochimica Acta 45 (2000) 3431-3438.

[2000.09] Benedetto Bozzini.
“Mass transport effects on the texture formation of nickel electrodeposits”
Materials Chemistry and Physics
66 (2000) 278-285.

[2000.10] Benedetto Bozzini.
“A simple numerical procedure for the simulation of "life-like" linear sweep voltammograms”
Journal of Chemical Education 77 (2000) 100-103.

1999

[1999.01] Benedetto Bozzini.

“Cathode growth stability of electrodeposited metal matrix particulate composites”

Transactions of the Institute of Metal Finishing 77 (1999) 135-138.

[1999.02] B. Bozzini*, C. Martini, P.L. Cavallotti, E. Lanzoni.

“Relationships among crystallographic structure, mechanical properties and tribological behaviour of electroless Ni-P(9%)/B₄C films”

Wear 225-229 (1999) 225-229.

[1999.03] B. Bozzini*, G. Giovannelli, S. Natali, B. Brevaglieri, P.L. Cavallotti, G. Signorelli.

“Hydrogen incorporation and embrittlement of electroformed Au, Cu and Au–Cu”

Engineering Failure Analysis 6 (1999) 83-92.

[1999.04] B. Bozzini*, F. Pavan, V. Accardi, P.L. Cavallotti.

“Electrodeposition and plastic behaviour of low-Mn Zn-Mn alloys for automotive applications”

Metal Finishing 97 (1999) 33-42.

[1999.05] Benedetto Bozzini*, Giuseppe Giovannelli, Pietro Luigi Cavallotti.

“An investigation into the electrodeposition of Au–Cu-matrix particulate composites”

Journal of Applied Electrochemistry 29 (1999) 685-692.

[1999.06] Benedetto Bozzini*, Giuseppe Giovannelli, Marco Boniardi, Pietro Luigi Cavallotti.

“Mechanical properties of ACD and ECD particulate metal matrix composite thin films”

Composites Science and Technology 59 (1999) 1579-1587.

[1999.07] M. Boniardi, B. Bozzini, G.C. Martinelli.

“An investigation into the fracture toughness of nitride layers by Vickers indentation”

Revue de metallurgie 96 (1999) 253-258.

1998-1991

[1998.01] Benedetto Bozzini*, Federico Pavan, Pietro Luigi Cavallotti.

“Experience with a pilot plant for the electrodeposition of Zn-Mn on wire”

Transactions of the Institute of Metal Finishing 76 (1998) 171-178.

[1998.02] Benedetto Bozzini*, Nora Lecis, Pietro Luigi Cavallotti.

“Structure and magnetic properties of nanocrystalline Ni-P prepared by autocatalytic chemical deposition”

Journal de physique IV 8 (1998) 371-374.

[1997.01] Benedetto Bozzini*, Marco Boniardi*.

“Fracture toughness of supported Ni-P films prepared by autocatalytic chemical deposition”

Zeitschrift für Metallkunde 88 (1997) 493-497.

- [1997.02] Benedetto Bozzini*, Pietro Luigi Cavallotti.
“Evidence of clustering in X-ray amorphous Ni-P prepared by autocatalytic chemical deposition”
Scripta Materialia 36 (1997) 1245-1248.
- [1997.03] Benedetto Bozzini*, Pietro Luigi Cavallotti, Federico Pavan.
“Metastable intermetallics in the Zn-Mn system obtained by electrodeposition”
Journal de Chimie Physique et de Physico-Chimie Biologique 94 (1997) 1009-1013
- [1997.04] Benedetto Bozzini*, Giuseppe Giovannelli, Pietro Luigi Cavallotti.
“An investigation into microstructure and particle distribution of Ni-P/diamond composite thin films”
Journal of Microscopy 185 (1997) 283-291.
- [1997.05] Benedetto Bozzini*, Giulia Bollini, Federico Pavan, Pietro Luigi Cavallotti.
“Zn-Mn alloy electrodeposition on steel”
Transactions of the Institute of Metal Finishing 75 (1997) 175-180.
- [1996.01] Benedetto Bozzini*, Pietro Luigi Cavallotti, Giuseppe Giovannelli, Bruno Brevaglieri, Stefano Natali.
“Quantitative metallography and image analysis of composite coatings obtained by autocatalytic chemical deposition”
Practical metallography 33 (1996) 130-145.
- [1994.01] G. Zangari*, B. Bozzini, P. L. Cavallotti, G. Fontana, P.G. Maisto, E. Terrenzio.
“Coercivity and microstructure of CoPt and CoPd thin films”
Journal of Magnetism and Magnetic Materials 133 (1994) 511-515.
- [1994.02] Pietro Luigi Cavallotti, Benedetto Bozzini, Luca Nobili, Giovanni Zangari.
“Alloy electrodeposition for electronic applications”
Electrochimica Acta 39 (1994) 1123-1131.
- [1994.03] Benedetto Bozzini, Giovanni Zangari, Pietro Luigi Cavallotti.
“Hydrogen evolution in Co alloy thin films prepared by electrochemical and autocatalytic deposition techniques”
Electrochimica Acta 39 (1994) 1787-1793.
- [1993.01] Benedetto Bozzini, Davide De Vita, Alberto Sportoletti, Giovanni Zangari, Pietro Luigi Cavallotti*, E. Terrenzio.
“Electrodeposited CoPt thin films for magnetic hard disks”
Journal of Magnetism and Magnetic Materials 120 (1993) 300-304.
- [1992.01] P.L. Cavallotti, M. Alberti, B. Bozzini, A. Iudica, L. Nobili, P.M. Ossi.
“Statistical thermodynamics of ordering in ferromagnets”
Journal of Magnetism and Magnetic Materials 104-107 (1992) 905-907.
- [1992.02] P.L. Cavallotti, M. Alberti, B. Bozzini, A. Iudica, L. Nobili, P. Ossi
“Statistical thermodynamics of ordering systems: an improved quasi chemical approximation”

in "Ordering and Disordering of Alloys", A.R. Yavari ed., Elsevier, London (GB) (1992), p. 229-238. ISBN 1851667628

[1992.03] P.L. Cavallotti, B. Bozzini, R. Cecchini, G.F. Bava, H.A. Davies, C. Hoggarth.
"Corrosion and protection of NdFeB-type magnets"
Journal of Magnetism and Magnetic Materials 104-107 (1992) 1216-1218.

[1990.01] B. Bozzini, P.L. Cavallotti, M. Ivanov, L. Arras, S. Garbarino, E. Terrenzio, P. Visigalli.
"Microstructure and magnetic properties of ACD Co-P thin films for magnetic recording"
IEEE Transactions on Magnetics 26 (1990) 45-47.