1. Invited lectures at international conferences/workshops

1) 207th ECS Meeting - Quebec City, Canada, May 14-20, 2005. "In situ Sum Frequency Generation Spectroscopy of the CN^- Resonance at Au Single- and Polycrystalline Electrodes in the presence of Organic Additives for Electrodeposition Baths".
2) 58th ISE Meeting - Banff, Canada, September 9-14, 2007.
"An in situ SFG and SERS Investigation of Copper in contact with aqueous solutions containing 4-2-[1-(cyanoethyl)-1,2,3,4-tetrahydroquinolin-6-yl]diazenl benzonitrile".
3) Shanghai - 2007 National Conference on Electroplating and Surface Finishing (China), Shanghai, November 3rd, 2007 "On the use of in situ Raman spectroscopy for the study of Cu plating".
4) 35th Colloquim Spectroscopicum Internationale - Xiamen PRN September 21-27, 2007
"An DR-SFG and SERS investigation of Levellers for Copper Electrodeposition".
5) Eurocorr 2008 - Edimburgh, September 11-17, 2008 "Linear and Non-linear Spectroelectrochemical Studies of Metal Electrodeposition and Corrosion Processes": **keynote lecture**.
6) Shanghai - 2009 National Conference on Electroplating and Surface Finishing (China), Shanghai, November 17th, 2009 "Effects of organic additives on morphological evolution of electrodeposited Ay and Ay alloys".
7) SPEM2010 - present and future of ScanningPhoyoElectron Microscopy: bridging the pressure gap. Center for Theoretical Physics, Grignano (TS) 13-14/12/2010. "Studies of electrochemical systems with running faradaic reactions by in situ SPEM".
8) WASCOM Waves and Stability in Continuous Media 2011 Brindisi 12-18 June 2011
Invited talk in Plenary session of 17/06/2011 on "Morphogenesis in Electrodeposition": **plenary lecture.**
9) Diamond I08 workshop @ Diamond Light Source, Harwell Science and Innovation Campus, Didcot, Oxfordshire, OX11 0DE, UK - October 5th, 2011, "In situ electrochemical soft X-ray micro-spectroscopy".
10) 11th International Conference on X-ray Microscopy (XRM2012) in Shanghai, China August 5-10th, 2012. "New Energy sources: in-situ characterization of fuel cell and supercapacitor components: complementary studies using transmission, fluorescence and photoelectron microscopy and imaging".
11) 18th Interfinish 2012, Milan November 14th-17th, 2012 "Electrochemical fabrication of NPG-supported manganese oxide nanowires based on electrodeposition from eutectic urea/choline chloride ionic liquid: an electrochemical in situ study based on soft X-ray spectromicroscopy and visible reflectivity".
12) 2nd I08-SXM Workshop of Scanning X-ray Microscopy at Diamond. March 25th, 2014.
13) 562nd Wilhelm and Else Heraeus-Seminar: "From Sunlight to Fuels - Novel Materials and Processes for Photovoltaic and (Photo)Catalytic Applications" at the Physikzentrum in Bad Honnef, Germany, May 11-16, 2014.
14) Gordon Research Conference on Aqueous Corrosion 2014, Hew Hampshire, July 13-18, 2014.
15) 65th Annual Meeting of the International Society of Electrochemistry, 31 August - 5 Semptember 2014, Lausanne, Switzerland.
16) AVS (American Vacuum Sociey) 61st International Symposium and Exhibition, Baltimore MD, November 9-14, 2014. Invited talk. Requested topic: "In-situ Characterization of PEMFC, SOFC, and Supercapacitor Components" for session: "Synchrtotron Studies of Processes in Energy Conversion, Electronic Devices and Other Materials II".
17) NSS8 (Nanoscale Spectroscopy and Nanotechnology 8) Chicago 28-31 July 2014. M. K. Abyaneh, B. Bozzini, T. Araki, B. Kaulich Invited talk: “Exploring ZnO nanostructures by synchrotron-based scanning x-ray and photoelectron microscopes.”
18) 39th International Conference on Vacuum Ultraviolet and X-ray Physics, VUVX2016 July 3 to July 8, 2016 in Zürich, Switzerland.
19) Workshop on “Advances in Electrocatalysis”, Strasbourg, November 13th, 2015.

20) First Internationl Zn/Air Battery Workshop 1st IZABW, Ulm (G) April 5th-7th, 2016.
21) NSS10 – International Workshop on Nanoscale Spectroscopy and Nanotechnology, organized by Diamond Light Source in Oxford (UK) 10th-13th September 2018.

2. Invitated international seminars/symposia

1) Sinctrotrone ELETTRA, Trieste. January 10th, 2006. Seminar on: "Electrochemical In situ Sum Frequency Generation Spectroscopy for Electrodeposition and Corrosion Applications"
2) Technische Universität Dresden, June 13th, 2006, seminar on: "Spectroelectrochemical Investigations of Metal Electrodeposition Processes"
3) ShangHai, FuDan University - January 24th, 2007. Seminar on "Spectroelectrochemical Studies of Metal Electrodeposition and Corrosion Processes
4) Xiamen University - January 27th, 2007. Seminar on :"Non-linear Spectroelectrochemical Studies of Metal Electrodeposition and Corrosion Processes"
5) SMIC Inc., ShangHai, July 9th-13th 2007: short course on: "Surface Physico-Chemical Aspects of Wafer-Cleaning Technology".
6) MINDE Course, Trento September 21st, 2008: "Linear and non-linear optical methods for in situ electrochemical spectroscopy and spectromicroscopy: applications to electrodeposition and corrosion processes"
7) Technische Universität Dresden, October 28th, 2008, seminar on: "Ultrafast and soft X-ray based spectroelectrochemical approaches to electrodeposition and corrosion studies"
8) Sheelagh Campbell Memorial Symposium London, Royal Society of Chemistry - April 8th, 2011 "In situ electrochemical soft X-ray spectromicroscopy."
9) Inaugural STFC Network Meeting: June 27-28th 2013, Cosener's House, Abingdon (UK).
10) Technische Universität Ilmenau, Department: Elektrochemie und Galvanotechnik, 25/07/2013 seminar: “Studying electrochemical reactions with Synchroton radiation”.
11) Workshop: "The Future of Elettra" April 8-9, 2014 at ICTP Adriatico Guesthouse.
12) Invited Speaker "Frontier Researchers form Yamanashi to the World. University of Yamanashi, Kofu, Japan. Oct. 15-16th, 2013.
13) Seminar lecture at the Department for Physical and Theoretical Chemistry of the Technical University of Munich: 20/12/2015.
14) Seminar at the Rostislaw Kaischew Institute of Physical Chemistry Bulgarian Academy of Sciences. 13/09/2016.

3. Invited lectures at national conferences/workshops

1) School of Electrochemistry of the Electrochemistry Division of the Italian Chemical Society (Scuola di Elettrochimica della Divisione di Elettrochimica della Società Chimica Italiana) 2005 – Ferrara. One-day course on Electrochemical Reactors.
2) XXIII SILS Meeting (Trento, 8-10 luglio 2015), Società Italiana Luce di Sincrotrone: **keynote lecture**.
3) Giornata di Studio AIM: “Metallo duro: applicazioni e fatica, usura, corrosione”, Anzola d’Ossola (VB) 23/11/2016. Memoria invitata su: “Il comportamento a corrosione del metallo duro”
4) Giornata di Studio AIM: “Energia: materiali metallici e accumulo”, Milano 16/12/2016. Memoria invitata su: “Elementi di scienza e tecnologia delle batterie e pile a combustibile: il linguaggio per comprendere la tecnologie”.
5) GdS Metalli (Centro Studi Leggeri) “ Metallurgia: dalla fonderia all’ingegnerizzazione delle superfici - Aspetti scientifici e applicazioni industriali Napoli 03/07/2017 Memoria invitata “Batterie metallo-aria con anodi in leghe leggere per applicazioni in velivoli ibridi”.

4. Patents

- F. Pavan, P.L. Cavallotti, B. Bozzini. EPA 98830090.1-2309 (12/05/1998) "Filo metallico trattato superficialmente per la realizzazione di strutture di rinforzo di manufatti in materiale elastomerico e procedimento per la sua realizzazione"
- B. Bozzini, G. Giovannelli EPA 98124576.4 (17/03/1999) "Solution and processes for the electodeposition of gold and gold alloys"

5. Funding ID

1) PRIN National Research Projects

1.1) 1999 *Evaluation of residual stresses and damaging in plastically deformed Al-matrix composites: expriments and FEM-based modelling* (WP leader): € 20,000 (£ equiv.).
1.2) 2000 *Electrochemical and tribological studies of Ni- and Cd-free white gold alloys* (research-unit coordinator): € 43,500 (£ equiv.).
1.3) 2002 *Surface physical chemistry of archaeological gold artefacts* (research-unit coordinator): € 90,200.
1.4) 2005 *Surface physico-chemical studies of electrodeposited layers for perpendicular magnetic recording* (research-unit coordinator): € 64,286.
1.5) 2008 *Electrochemical and spectroelectrochemical corrosion and electrodeposition studies of RE-TM magnetostrictive alloys* (research-unit coordinator): € 43,811.

2) Indirect EU funding

2.1) POR 2000-7 (2000) project *Electrodeposited tribological coatings* (project coordinator): € 70,500 (£ equiv.).
2.2) POR 2000-7 (2000) project *Electrochemical fabrications of materials for laser-alloying* (project coordinator): € 30,000 (£ equiv.).
2.3) POR 2000-7 (2001) project *Corrosion problems of plain steel, coupled to carbon-fiber reinforced polymer composites* (subcontractor of CETMA - Mesagne (BR)): € 48,000 (£ equiv.).
2.4) PON 2000-7 (2002) project *TEPLAN Design and construction of a plasma thermodestructor prototype* (subcontractor of CETMA - Mesagne (BR)): € 50,000.
2.5) PON 2000-7 (2003) project *Nitrite- and nichel-free phosphating of Zn-coated steel* (research-unit coordinator): € 90,000.
2.6) PON 2000-7 (2006) project SIDART *Integrated system for cultural heritage diagnostics* (WP leader): € 85,000.
2.7) POR 2007-13 (2007) project RECARCO *Electrochemical techniques for the recovery of hardmetal scraps* (project coordinator): € 100,000.
2.8) POR 2007-13 (2007) project RECIST *Electrochemical techniques for the recovery of automotive WEEE* (project coordinator): € 100,000.
2.9) POR 2007-13 (2007) project RINNOVA *Innovative nanostructured coatings* (research-unit coordinator): € 128,000.
2.10) "Green Engine" Laboratory Network Project (2009-2012) GREEN ENGINE *Technologies for sustainable propulsion* (Leader of Task: *Characterization of the corrosion performance of metallic materials in combustion and propulsion systems*): € 133,700.
2.11) PON 2007-13 (2011) *Reseach and Competitiveness project SMATI Development of advanced materials and innovative technologies for turbomachinery operating under extreme conditions* (WP leader): € 550,000.
2.12) PON 2007-13 (2011) project CSEEM *Strengthening scientific and tecnological structures and infrastructures* (WP leader): € 237,865.

3) Direct EU funding

3.1) EU-FP5 CRAFT project (2001-2003) NEWALLOY *Electrodeposition of Mn-based alloys* (research-unit coordinator): € 160,000.
3.2) EU-FP5 CRAFT project (2003-2005) HIDUR *Nanocrystalline wear-resistant materials* (research-unit coordinator): € 80,520.

4) EU networking actions funding

4.1) COST action e-MINDS (oc-2014-1-18648) 2014-2018 *Electrochemical processing methodologies and corrosion protection for device and systems miniaturization*. Participant

4.2) Erasmus Bilateral Agreement for Teaching Staff Mobility of short duration. Academic Years 2013-2014. Promoter and contact person.
4.3) Erasmus+ Programme, Key Action 1 – Mobility for learners and staff – Higher Education Student and Staff Mobility – Inter-institutional agreement 2014-2020. Agreement between Technische Universität Ilmenau (D) and Università del Salento. Promoter and contact person.

5) Competitive access to big facilities as PI

(nb: 1 shift = 8 hours, 1 run = 1 day)

5.1) ELETTRA synchrotron (Trieste, Italy)

5.1.1) 2006217 *Water-Window spectromicroscopic investigation of Ag corrosion in aqueous chloride solutions* TWINMIC beamline; proposal quarter: middle top, 15 shifts.
5.1.2) 2006837 *Identification of corrosion products on WC-Co type hardmetal by Photoelectron Spectromicroscopy* ESCAMICROSCOPY beamline; proposal quarter: middle top, 15 shifts.
5.1.3) 2007616 *An investigation into electrochemical degradation processes of fuel-cell bipolar-plate materials by in-situ by soft-X-ray spectromicroscopy* TWINMIC beamline; **proposal quarter: top**, 18 shifts.
5.1.4) 2007657 *An investigation into the corrosion of metallic PEMFC bipolar plates based on ESCA microscopy* ESCAMICROSCOPY beamline; **proposal quarter: top**, 18 shifts.
5.1.5) 2008262 *A Soft-X-Ray Spectromicroscopic Investigation of the Interaction of Bipolar-Plate Corrosion and Membrane Degradation in a Wet-Cell simulating PEMFC Operating Conditions* TWINMIC beamline; **proposal quarter: top**, 18 shifts.
5.1.6) 20085102 *An in situ Electrochemical Study by Soft-X-Ray Spectromicroscopy of Nanometric Pt-Catalyst Degradation induced by the Corrosion of Bipolar Plates in a Wet-Cell simulating Fuel Cell Operating Conditions* TWINMIC beamline; **proposal quarter: top**, 18 shifts.
5.1.7) 20095020 *Investigation of nanostructural aspects of the durability of fuel cell components, based at the combination of SPEM and in situ electrochemistry* ESCAMICROSCOPY beamline; **proposal quarter: top**, 24 shifts.
5.1.8) 20095021 *A in situ Electrochemical Study by Soft-X-Ray Spectromicroscopy of Nanotechnological Issues of Polymer Electrolyte Membrane Fuel Cells* TWINMIC beamline; **proposal quarter: top**, **long-term project**: 18x4 shifts.
5.1.9) 20100222 *SPEM analysis of of a Late Bronze-Age Artefact affected by Bronze Disease before and after electrochemical chloride extraction in Room-Temperature Ionic Liquid 1-Ethyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide (EMI-TFSI)* ESCAMICROSCOPY beamline; **proposal quarter: top**, 24 shifts.
5.1.10) 20105433 *Quasi-environmental SPEM-based investigation of the material stability of interconnects of a nano-solid-oxide fuel cell (SOFC) during in situ cathodic operation* ESCAMICROSCOPY beamline; proposal quarter: middle top, 24 shifts.
5.1.11) 20110226 *In situ electrochemical SPEM and XPS investigation of solid-oxide fuel-cell (SOFC) catalyst/interconnect material combinations in anodic and cathodic gas environments* ESCAMICROSCOPY beamline; **proposal quarter: top**, 24 shifts.
5.1.12) 20115045 *An in situ study by soft-X-ray spectromicroscopy of the electrochemical fabrication of nanoporous gold decorated with manganese oxide nanowires from eutectic urea/choline chloride ionic liquid* TWINMIC beamline; **proposal quarter: top**, 18 shifts.
5.1.13) 20115155 *In situ SPEM investigation of a single-chamber SOFC running on a CH_4/O_2 mixture during electrochemical operation* ESCAMICROSCOPY beamline; **proposal quarter: top**, 24 shifts.
5.1.14) 20120094 *In situ SPEM investigation of a single-chamber SOFC running on a hydrocarbon/air mixtures with high-pressure pulsing, during electrochemical operation* ESCAMICROSCOPY beamline; **proposal quarter: top**, 24 shifts.
5.1.15) 20120107 *An in situ study by soft-X-ray microspectroscopy of the electrodeposition of manganese oxide nanowires from eutectic urea/choline chloride ionic liquid* TWINMIC beamline; proposal quarter: middle top, 24 shifts.
5.1.16) 20125211 *In situ STXM investigation of a solid-state PE fuel-cell based on an anhydrous proton conducting electrolyte* TWINMIC beamline; **long-term project**, **proposal quarter: top**, 24x4 shifts.
5.1.17) 20125228 *In situ investigation of low- and intermediate-temperature solid-state fuel-cells based on proton conducting electrolytes* ESCAMICROSCOPY beamline; **proposal quarter: top**, 24 shifts.
5.1.18) 20130310 *In situ investigation of thin-film solid-state electrochemical supercapacitors* ESCAMICROSCOPY beamline; **proposal quarter: top**, 24 shifts.
5.1.19) 20135249 *In situ electrochemical investigation of CO_2 and H_2O splitting in Solid-Oxide Electrolysis Cells (SOEC)* ESCAMICROSCOPY beamline; proposal quarter: middle top, 24 shifts.
5.1.20) 20145307 *In-situ soft X-ray microspectrosocpy fCDI study of electrodeposited metal-polypyrrole nanocomposite oxygen electrocatalyst for Pt replacement* TWINMIC beamline; **proposal quarter: top**, 21 shifts.
5.1.21) 20155153 *An SPEM study of electrochemical pattern formation in Ag-alloy electrodeposits* ESCAMICROSCOPY beamline; **proposal quarter: top**, 24 shifts.
5.1.22) 20160090 *In-situ soft X-ray microspectroscopy study of electrodeposited MnCo/polypyrrole nanocomposites for bifunctional oxygen electrodes* TWINMIC beamline; **proposal quarter: top**, 18 shifts.

5.1.23) 20165061 *X-ray microtomography in operando study of novel Zn-sponge anodes for rechargeable Zn-air batteries* SYRMEP beamline; **proposal quarter: top**, 12 shifts.
5.1.24) 20165300 *In operando study of a Zn/O_2 microbattery* TWINMIC beamline; **proposal quarter: top**, 15 shifts.

5.2) BESSY-II synchrotron Berlin (D)
2014 - 2013_2_130542 *A high-pressure in situ XPS and NEXAFS study of Solid Oxide Electrolysis Cells in operando conditions* ISISS beamline: 21 shifts.

5.3) Diamond Synchrotron, Didcot (UK)
2016 – SP14027 *In situ SXM, XRF and micro-XAS investigation of Mn-Co/polypyrrole nanocomposite bifunctional oxygen electrodes* I08 beamline; **best-score proposal**, 21 shifts.

5.4) OPO-SFG facility (Universite' Paris XI, Orsay, F)
5.4.1) (OPO-2002) *SFG study of the electrodeposition of gold*: 4 runs.
5.4.2) (OPO-2003) *SFG/DFG study of the coadsorption of CN^- and aromatics on gold electrodes*: 8 runs.
5.4.3) (OPO-2004) *OPO/SFG-DFG study of the coadsorption of CN^- and aromatics from KCN and metal cyanocomplexes with organic cations and polymers containing aromatic groups on gold, copper and alloy electrodes*: 8 runs.
5.4.4) (OPO-2005) *OPO/SFG-DFG study of the coadsorption of CN^- from KCN and metal cyanocomplexes with organic cations and polymers containing aromatic groups on gold, copper and alloy electrodes*: 8 runs.
5.4.5) (OPO-2006) *OPO-SFG study of Cu electrodeposition from acid sulphate solutions in the presence of levellers*: 4 runs.
5.4.6) (OPO-2007) *OPO Electrochemical SFG/DFG study of copper in contact with aqueous solutions containing 4-{2-[1-(2-cyanoethyl)-1,2,3,4-tetrahydroquinolin-6-yl]diazenyl} benzonitrile (CTDB)*: 4 runs.
NB - Funded access to OPO has been terminated in 2007, but a self-funded collaboration with the OPO-SFG beamline has continued and is still running.

5.5) CLIO free-electron laser (Universite' Paris XI, Orsay, F)
5.5.1) (CLIO-2004) *CLIO-SFG/DFG study of the adsorption of benzyldimethylphenylammonium chloride and other aromatics in the absence and in the presence of CN^- on gold and gold-base alloy electrodes*: 8 runs.
5.5.2) (CLIO-2005) *SFG/DFG study of the adsorption of aromatic molecules on gold, copper and Au-Cu alloy electrodes in the absence and in the presence of electroactive metal complexes*: 8 runs.
5.5.3) (CLIO-2006) *CLIO-SFG study of Cu electrodeposition from acid sulphate solutions in the presence of levellers*: 4 runs.
5.5.4) (CLIO-2007) *CLIO Electrochemical SFG study of copper in contact with aqueous solutions containing 4-{2-[1-(2-cyanoethyl)-1,2,3,4-tetrahydroquinolin-6-yl]diazenyl} benzonitrile (CTDB)*: 4 runs.
5.5.5) (CLIO-2008) *CLIO-SFG/DFG study of the stability of Pt and PtRu nanoparticles for ethanol fuel-cell catalysts*: 4 runs.
5.5.6) (CLIO-2009) *Dynamic SFG/DFG study of the adsorption of CN^- from the room-temperature ionic liquid BMP-TFSI at Au(111), Cu(111), Ag(111) and Pt(111) electrodes*: 4 runs.
5.5.7) (CLIO-2010) *SFG investigation of Au electrodeposition from the room-temperature ionic liquid BMP-TFSA, containing Au(I) and Au(III) cyanocomplexes*: 4 runs.
5.5.8) (CLIO-2011) *SFG investigation of Au electrodeposition from a deep eutectic solvent based on choline chloride and urea, containing Au(I) and Au(III) cyanocomplexes*: 4 runs.
5.5.9) (CLIO-2012) *In situ electrochemical SFG study of the adsorption on stainless steel grades of corrosion-enhancing and -inhibiting species for petrochemical applications*: 4 runs.
5.5.10) (CLIO-2013) *In situ electrochemical SFG study of the adsorption on WC/Co, WC/Ni and WC/Co-Ni hardmetal grades of corrosion-enhancing and -inhibiting species for petrochemical applications*: 4 runs.
5.5.11) (CLIO-2017) *In situ electrochemical SFG study of WC-hardmetal corrosion in the presence of inhibitors for petrochemical applications*: 4 runs.

5.6) Tomolab@Elettra (X-ray microtomography) Trieste, Italy
5.6.1) 2013 *X-ray tomography of ancient corroded coins from the Saturo (TA) hoard*: 4 days.
5.6.2) 2016 *X-ray tomography of pristine and aged Zn-air fuel-cell components*: 2 days.
5.6.3) 2017 *In situ X-ray tomography of Zn-air battery anodes*: 3 days.

6) Research contracts with private companies

6.1) 2002 *Study of the anodic behaviour of WC-Co type hardmetal* (F.I.L.M. s.r.l., Megolo (VB)): € 26,400 (£ equiv.).
6.2) 2004 *FTIR measurements on corrosion protection afforded by cement additives* (Dipartimento di Chimica, Materiali e Ingegneria Chimica "Giulio Natta", Politecnico di Milano): € 12,000.
6.3) 2004-2005 Project HALOCLEAN: *Electrochemical recovery of metals from WEEE* (Sea Marconi Envirotech Italia s.r.l., Lecce) : € 50,000.
6.4) 2011 – Consultancy contract according to art. 3.1. DM 13/3/2009 *Elimination/replacement of hexavalent chromium* (art. 57 CE regulation 1907/2006) in hard-chromium applications " Soc. Tecnologie Galvaniche s.r.l., Potenza: € 7,500.
6.5) 2013-2015 – Research Agreement with ARGO s.r.l. Segrate (MI), that yielded the free fabrication and delivery of three zinc-air battery systems.

7) Miscellaneous funding sources
7.1) 1999 - Competitive MURST/Region Apulia grant for the creation of new academic laboratories (1999) € 193,500 (£ equiv.).
7.2) 2003 – Consultancy contract with Province of Lecce, Environment Dept. (Provincia di Lecce - Settore Territorio e Ambiente): assessment of an industrial pollution case: € 12,000.
7.3) "VIGONI" CRUI-DAAD project for researcher exchange between Italian and German Universities 2006-2007: € 16,000.
7.4) 2007 – Dedicated funding grated by the Province of Brindisi for the creation of a teaching-laboratory for the study of fuel-cell durability at the Industrial Engineering Faculty based in Mesagne (BR): € 44,000.
7.5) 2011 – Dedicated funding grated by the Province of Brindisi for the creation of a teaching-laboratory for the study of stress-corrosion cracking at the Industrial Engineering Faculty based in Mesagne (BR): € 22,150.

6. Description of the Electrochemisty Laboratories at University of Salento

The Innovation Engineering Department of University of Salento operates the Applied Electrochemistry Laboratory and the Spectroelectrochemistry Laboratories, headed by Prof. Benedetto Bozzini.

1) Appied Electrochemistry Laboratory (AEL)
27 m^2, chemical tables (6 × 2 m modules) (8.500 €), fume cupboard (2.500 €), 3 PC positions (1.200 €).
- General-purpose laboratory equipment, including tube oven (up to 1200°C (5.500 €)), rotary pumps (3.700 €), pH-meters (850 €), thermostatic baths (1.250 €).
- 4 electrochemical statations (2 AMEL, 1 PAR tot. 85.000 €), including EIS capabilties and original modifications for non-linear AC measurements.
- 3 potentiostats (AMEL) (12.000 €)
- VERSAST e PARSTAT potentiostats EG&G (50.000 €)
- rotating-disk electrode (EG&G) (15.000 €)
- 2 mass-flow controllers (manual and electronic) for the management of 5 gases each (9.000 €)
- PEMFC testing system (22.000 €)
- SOFC testing system (14.000 €))
- MCFC testing system (11.000 €)
- ZAFC testing system (30.000 €)
- Cell for high-temperature measurements (up to 1000°C) with controlled atmosphere (3.800 €)
- 2 fluidized-bed electrochemical reactors (two- and three-compartment versions) (4.700 €)
- CSTR- and PFR-type electrochemical reactors (2.400 €)
- Impinging-jet rig for erosion-corrosion testing with electrochemical control capabilities (3.700 €)

- Rig erosion-corrosion testing in petrochemical ambient (including H_2S saturation) with electrochemical control capabilities (ca. 150.000 €)
- Facilities for the sythesis and application of fuel-cell catalysts (7.800 €).

2) Spectroelettrochimistry Laboratory (SEL)
160 m^2, chemical tables (4 × 2 m modules), 2 PC positions (complessivamente 6.500 €).
- Spectrometer for in situ electrochemical FT-IR (including Balston system for the generation of dry and CO_2-free air) (65.000 €)
- Spectrometer for in situ electrochemical Raman (125.000 €), with upgraded CCD (2014) 25.000 €.
- Spectrometer for in situ electrochemical VIS-UV spectral electroreflectance (27.000 €)
- VIS-UV spectroellipsometer for in situ electrochimical measurements (75.000 €)
- Spectrometer for in situ Surface Optical Second Harmonic Generation with phase-measurement capability (80.000 €)
- Electrochemical Scanning Tunneling Microscope (2 systems: (1) E-STM 50.000 €; (2) E-STM/E-AFM 230.000 €): dedicated room equipped with suspension system and devices for: (i) tip fabrication; electropoloshing of samples; solution pre-treatmet and transfer to electrochemical STM cell.
- Each spectrometer is equipped with eletrochemical facilities for the simultaneous recording of electrochemical data with state-of-the-art steady-state and dynamic techniques.
- MilliQ system for the fabrication of hyperpure water.