FORMATO EUROPEO PER IL CURRICULUM VITAE

PERSONAL INFORMATIONS

Name	**BODOARDO SILVIA**
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E-mail	**Silvia.bodoardo@polito.it**
Nationality	italia
Date of birth	10,OTTOBRE,1965

WORK EXPERIENCE

•	24/12/2021- todate	Full Professor
	1/9/2015 – 23/12/2021	Associate Professor
	1/9/1995 - 31/08/2015	Researcher Politecnico di Torino
•	1/1/1991 - 31/8/1995	Technician Politecnico di Torino
•	9/1989 - 12/ 1990	Teacher of Chemistry
•		
• Main Responsibilities	Other activities	Vicepresident of EDISU (Ente per il diritto allo Studio Universitario Regione Piemonte) Responsible of the task force on Batteries named by ViceRector for Research. Former Responsible of the course of Chemistry ViceRector for Didactic Responsible of the research and laboratories on Storage at the Energy Center Lab and of the laboratory of CARS @ polito Responsible of the activities of the chemistry laboratories since 2000 to date.

EDUCATION

- 10/7/1989 Graduation in Chemistry 110/110 Università degli Studi di Torino
- October 1995 PhD in Materials Engineering (Politecnico di Milano)

LANGUAGE

ITALIAN

OTHER LANGUAGE

ENGLISH

COMPETENCES

The main research activity of Silvia Bodoardo is in the electrochemistry group of the Politecnico di Torino, a group that carries out consolidated national and international research activities documented by numerous publications with highly respected foreign researchers and national and European research projects of which the candidate he was the coordinator or local science officer.

Over the years, research has focused on various lines of research in the field of physical chemistry and in particular electrochemistry by studying the electrochemical behavior of catalytic materials and materials related to certain types of electrochemical energy generators.

The main themes studied are:

- structural characteristics and electrochemical properties of manganese dioxide as an active substance in alkaline batteries (1991-2001)
- lead-acid accumulator (1995-1999)
- study of superconducting materials (2003-2005)
- Study of electrode materials for lithium ion cells
- study of high capacity materials such as the anode for lithium ion cells
- Study of high potential materials such as cathode for lithium ion cells
- Study of electrodes and electrolytic materials for lithium-sulfur cells
- Study of electrodes and electrolytic materials for lithium air cells
- Characterization of industrial cells for lithium-ion batteries
- Study of electrochemical hybrid systems: high energy / high power

RESEARCH FUNDED PROJECTS

- PNRR projects: CN on Mobility MOST
- HEU GIGAGREEN – Toward Sustainable processing techniques applied to large scale electrode and cell component manufacturing for Li-ion batteries Coordinator 2022-2026
- HEU ADVAGEN Development of Advanced next Generation Solid Sate batteries for Electromobility Applications – Participant 2022-2026
- H2020 CSA Battery2030plus BATTERY 2030+ - large-scale research initiative: At the heart of a connected green society GA 957213 - prof.ssa Silvia Bodoardo coordinatrice locale e leader WP3 –
- H2020 CSA Battery2030+ large-scale research initiative: At the hearth of a connected green society – GA 854472 – prof.sa Bodoardo coordinatrice locale, WP3 leader
- H2020 HYDRA Hybrid power-energy electrodes for next generation lithium-ion batteries GA 875527 -prof.ssa Silvia Bodoardo coordinatrice locale e leader WP1 –
  - H2020 SUBLIME Solid state sUlfide Based LI-MEtal batteries for EV applications GA 875028 – coordinatrice locale prof.sa Amici Julia -
  - H2020 BIGMAP Battery Interface Genome - Materials Acceleration Platform – GA 957189 – coordinatore locale prof Chiavazzo e per il DISAT prof Marchisio –
- H2020 SENSIBAT Cell-integrated SENSIing functionalities for smart BATtery systems with improved performance and safety GA 957273 - prof.ssa Silvia Bodoardo coordinatrice locale e leader WP6 – 260375
- Contract ENEA Ricerca di Sistema Elettrico – PAR 2016 and PAR 2017 Progetto C.5 SISTEMI DI ACCUMULO DI ENERGIA PER IL SISTEMA ELETTRICO Accordo di Collaborazione ENEA – Politecnico di Torino
- Bando di mobilità con Argentina sept 2017-ago2 2018 with INIFTA (La Plata) and University of Cordoba Interdipartimental Lab: Energy Center lab.
- H2020 NMP-GV-2014 NMP-17-2014 Advanced Lithium Sulphur battery for xEV ALISE GA 666157

- H2020 GV-2014 GV-1-2014 eCAIMAN Electrolyte, Cathode and Anode Improvements for Market-near Next-generation Lithium Ion Batteries GA 653331 – WP2 leader
- FP7 GC.NMP.2013-1 2013-2017 MARS EV - Materials for Ageing Resistant Li-ion High Energy Storage for the Electric Vehicle GA 609201 responsabile scientifico locale e leader WP4
- FP7 EeB 2013-2017 RESSEPEE -REtrofitting Solutions and Services for the enhancement of Energy Efficiency in Public Edification " Grant agreement no: 609377 – responsabile scientifico locale
- FP7-ICT-2009-5: SMARTEC Smart electrochromic active matrix components for stand-alone multifunctional devices (GA 258203) Responsabile Scientifico locale
- FP7-NMP-2012-1: STABLE STable high-capacity lithium-Air Batteries with Long cycle life for Electric cars GA n 314508 – coordinatore del progetto
- Progetto Regione Piemonte C116 messa a punto di cella a ioni Li con materiali elettrodici nanostrutturati ed elettrolita polimerico in vista dell'uso su veicoli elettrici - partecipante
- Progetto Regione Piemonte Misura II.3 AMPERE - AUTOBUS MODULARI SU PIATTAFORMA ECOLOGICA A RECUPERO DI ENERGIA" 2010-2013 – responsabile scientifico locale
- Progetto Regione Piemonte Misura II.3 POLITIO : ricerca e sviluppo di processi per materiali e celle litio-ione innovativi ed ecocompatibili per applicazioni automotive 2010-2013 – responsabile scientifico locale
- Progetto Regione Piemonte 2006-2008 HYSYVISION: azioni di supporto alla creazione e consolidamento della filiera idrogeno in Piemonte - ATS per progetti di ricerca Nazionale e Regionale – partecipante
- Progetto Regione Piemonte – piattaforma automotive 2012-2015 CARVOUR - coordinatore
- Progetto Regione Piemonte – piattaforma automotive 2012-2015 PIE' VERDE - partecipante
- Progetto Regione Piemonte – piattaforma automotive 2012-2015 iDEA partecipante
- INDUSTRIA 2015: ALADIN Efficienza Energetica: Nuova Generazione Di Sistemi Di Illuminazione/Segnalazione Intelligenti Ad Alta Efficienza Che Incorporano Generazione Ed Accumulo Energetico – responsabile scientifico locale
- PRIN 1998 Reattività e Morfologia di Catalizzatori DeNOx: Studi Spettroscopici e di Microscopia Elettronica - partecipante
- PRIN 2000 MM03268231_004 Sintesi e caratterizzazione morfologica e cristallochimica di materiali a intercalazione di Litio con struttura a Spinello - partecipante
- PRIN 2002 2002024514_002 Caratterizzazione Mediante Tecniche Strutturali, Termiche E Di Spettroscopia Uv-Vis Di Materiali Avanzati Per Sensori E Studio Del Desorbimento Termico Da Particolato Atmosferico Pm10 - partecipante
- FIRB 2003-2006, titolo: Silicon micromachined photodetectors based on MgB2 superconductor films - partecipante
- PRIN 2008 2008PF9TWZ_001 assemblaggio del prototipo di cella Li/aria a partire dai componenti forniti dalle U. O. e valutazione delle prestazioni elettrochimiche - partecipante
- Interdipartimental Lab: SMART GRID partecipante
- Contratto Rockwood – anno 2008 – per lo sviluppo di materiali catodici innovativi
- Contratto PROSESC – anno 2011-12 – per attività di carattere tecnico e scientifico per la divulgazione dei risultati della ricerca e del trasferimento tecnologico delle Provincia di Torino nell'ambito di un progetto europeo FP7 omonimo sulla mobilità sostenibile.
- Progetto CARIPLO – anno 2012 e 2013 – per lo studio di materiali elettrodici per celle litio-aria.

OTHER EXPERIENCE

Silvia Bodoardo was indicated in March 2023 as the first among the 20 Italian scientists who have revolutionized the world of research from Wired.

She was also chairwoman of a new Horizon Award for Innovative Batteries DG Research European Commission, 14 May 2017

She gave a speech during the FET day (Brussels, 10 January 2018) and was the speaker of the table on mobility. She was in charge, with Marcel Meuss, Simon Perraud and Noshin Omar to reorganize new battery roadmaps.

Chair in WG3 on advanced materials in the European technological innovation platform BatteRIesEurope.

Leader of the Education task force of Batt4EU and Bepa (European Battery Partnership) and ETIP Batteries Europe

She was sent by the MFA (Ministry of Foreign Affairs) to Bolivia for a course on lithium systems in May 2010

National evaluator of FIRB and PRIN projects

Evaluator for the European Commission in the NMP and ICT area

Evaluator of PEPR french projects and of Norvegian Research Council

Contact person for the Ministry of Foreign Affairs for relations with Bolivia in the lithium battery sector (during your stay in Bolivia, you assisted in local research activities. You received public praise from the Bolivian and Italian ambassadors in Bolivia).

Silvia Bodoardo has been invited to present scientific papers at international conferences; ISE 2013 in Queretaro - Mexico, Italy-India Electrochemical Days in New Dehli 2012, ILED 2012 in Rome and Scientific Member of the EMRS 2011 and EMRS 2014 Fall Meeting; ISE Conference in Buenos Aires, March 2017

Silvia Bodoardo OTHER EXPERIENCES AND INVITATIONS

she was a member of the organizing committee of numerous national and international conferences:

AICING 2006 Turin

EUCHEM 2010 Turin

EMRS Fall meeting 2011 Warsaw (Poland)

EMRS Fall meeting 2014 Lille (France)

EMRS Fall meeting 2016 Warsaw (Poland)

She has been chairwoman of numerous international conferences

She is also an active member of the Telios Foundation.

She is referee of numerous international journals such as: Journal of Power Sources, Electrochemistry Acta, Thin Solid Film, Ionics, European Ceramic Society

She also organized dissemination conferences on sustainable mobility, such as the days organized for the province of Turin as part of the European project PROSESC in March 2012.

Silvia organized and invented the Young Scientists Event where some hundreds of young scientists in Europe met and wrote the Manifesto of Young Scientist in the field of Batteries (https://battery2030.eu/wp-content/uploads/2022/11/YSE_Manifesto.pdf)

MAIN PUBLICATIONS

1. Versaci, Daniele, Kastrinaki, Georgia;Ganas, George, Zarvalis, Dimitrios, Karagiannakis, George, Amici, Julia, Francia, Carlotta, Bodoardo, Silvia - Influence of electrode fabrication process on nanocrystalline tin oxide electrochemical behaviour for high voltage SnO_2/LNMO full cell Li-ion battery Journal of Energy Storage Volume 6515 August 2023 Article number 107357
2. Elizalde, Fermin; Amici, Julia; Trano, Sabrina; Vozzolo, Giulia; Aguirresarobe, Robert; Versaci, Daniele; Bodoardo, Silvia; Mecerreyes, David; Sardon, Haritz; Bella, Federico- Self-healable dynamic poly(urea-urethane) gel electrolyte for lithium batteries- JOURNAL OF MATERIALS CHEMISTRY A (2022) 10
3. Amici, Julia; Marquez, Paulina; Mangini, Anna; Torchio, Claudia; Dessantis, Davide; Versaci, Daniele; Francia, Carlotta; Aguirre, Maria Jesus; Bodoardo, Silvia - Sustainable, economic, and simple preparation of an efficient catalyst for Li-O-2 batteries - JOURNAL OF POWER SOURCES (2022) 546
4. Gandolfo, Matteo; Amici, Julia; Fagiolari, Lucia; Francia, Carlotta; Bodoardo, Silvia; Bella, Federico - Designing photocured macromolecular matrices for stable potassium batteries -SUSTAINABLE MATERIALS AND TECHNOLOGIES (2022) 34
5. Daniele Versaci, Melina Cozzarin, Julia Amici, Carlotta Francia, Ezequiel P.M. Leiva, Arnaldo Visintin, Silvia Bodoardo - Influence of synthesis parameters on g-C3N4 polysulfides trapping: a systematic study - Applied Materials Today 25 (2021) 101169- Accepted 28 August 2021- https://doi.org/10.1016/j.apmt.2021.101169
6. Zubair, U., Amici, J., Crespiera, S.M., Francia, C., Bodoardo, S. Rational design of porous carbon matrices to enable efficient lithiated silicon sulfur full cell (2019) Carbon, 145, pp. 100-111
7. Zubair, Usman; Amici, Julia; Francia, Carlotta; Mcnulty, David; Bodoardo, Silvia; O'Dwyer, Colm. Polysulfide Binding to Several Nanoscale TinO2n-1 Magnéli Phases by Simple Synthesis in Carbon for Efficient and Long Life, High Mass Loaded Lithium Sulfur Battery Cathodes / - In: CHEMSUSCHEM. - ISSN 1864-5631. - (2018).
8. Amici Julia; Alidoost Mojtaba; Francia Carlotta; Bodoardo Silvia; Martinez Crespiera Sandra; Amantia David; Biasizzo Miriam; Caldera Fabrizio; Trotta Francesco O2 selective membranes based on a dextrin-nanosponge (NS) in a PVDF-HFP polymer matrix for Li–air cells /. - In: CHEMICAL COMMUNICATIONS. - ISSN 1364-548X. - 52(2016), pp. 13683-13686.
9. Vankova; S. Zanarini; J. Amici; F. Cámara; R. Arletti; S. Bodoardo; N. Penazzi (2015) WO3 Nanorolls self-assembled as thin films by hydrothermal synthesis. In: NANOSCALE, vol. 7, pp. 7174
10. Zeng, J; Francia, C; Amici, J; Bodoardo, S; Penazzi, N (2015)
11. Zanarini S.; Di Lupo F.; Bedini A.; Vankova S.; Garino N.; Francia C.; Bodoardo S.Three-Colors Electrochromic Lithiated Vanadium Oxides: The Role of Surface Superoxide in the Electro-generation of Red State /. - In: JOURNAL OF MATERIALS CHEMISTRY. C. - ISSN 2050-7526. - 2(2014), pp. 8854-8857.
12. A highly reversible Li-O-2 battery utilizing a mixed electrolyte and a cathode incorporating Co3O4. In: RSC ADVANCES, vol. 5 n. 101, pp. 83056-83064.
13. Italo Doberdò; Nicholas Löffler; Nina Laszczynski; Dario Cericola; Nerino Penazzi; Silvia Bodoardo; Guk-Tae Kim; Stefano Passerini (2014) Enabling aqueous binders for lithium battery cathodes - Carbon coating of aluminum current collector. In: JOURNAL OF POWER SOURCES, vol. 248, pp. 1000-1006.
14. Bodoardo, S.; Zubair, Usman; Serrapede, M.; Amici, J.; Zaccagnini, P.; Versaci, D.; Francia, C.; Pirri, C.; Lamberti, A. - Dispositivo elettrochimico a commutazione automatica per l'accumulo ad alta energia e ad alta potenza - P2952PC00 - PCT/IB2019/053525

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Torino 16 May 2023