CURRICULUM VITAE

Surname Name	BODOARDO SILVIA
03/B2	Associate Professor

University	Politecnico di Torino
Department	Applied Science and Technology - DISAT

Work experience

September 1989 December 1990	Chemistry Teacher at technical high schools
1/1/1991 a 31/8/1995	Technical graduate. Politecnico di Torino
1/9/1995 a 31/08/2015	Researcher Politecnico di Torino
1/9/2015 – to date	Associate professor
Other activities	Responsible for the task force on batteries appointed by the Vice rector for research. Responsible for the courses of chemistry appointed by the Deputy Rector Responsible for Storage research and laboratories at the Energy Center Lab and in CARS@polito interdipartimental lab Responsible for the activity of the didactic chemistry laboratories from 2000 to present Local scientific manager of many European, national and regional projects Appointed by the Deputy Rector for the organization of the Summer Junior University

Degree 10/7/1989 110/110
Università degli Studi di Torino
Laurea in Chimica, dottorato in Ingegneria dei Materiali (Politecnico di Milano)

Scientific activity

Silvia Bodoardo main research activity is in the Electrochemistry Group of the Politecnico di Torino, a group that conducts well-established national and international research activities documented by numerous publications with highly respected foreign researchers and national and European research projects Of which the candidate was coordinator or local scientific officer.
Over the years, research has been focusing on various research lines 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 active matter 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 anode for Li-ion cells
- Study of high potential materials such as cathode for Li-ion cells
- Study of Electrode 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 –

Projects

1. LCBAT 13 SENSIBAT
2. KIC INNOENERGY ESTORE
3. CSA SYNERGY
4. LCBAT12 BIGMAP
5. LCBAT 11 SEABAT
6. LCBAT1 SUBLIME
7. LCBAT5 HYDRA
8. Large Research Initiative Battery2030+
9. 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
10. Bando di mobilità con Argentina sept 2017-ago2 2018 with INIFTA (La Plata) and University of Cordoba Interdipartimental Lab: Energy Center lab.
11. H2020 NMP-GV-2014 NMP-17-2014 Advanced Lithium Sulphur battery for xEV ALISE GA 666157
12. H2020 GV-2014 GV-1-2014 eCAIMAN Electrolyte, Cathode and Anode Improvements for Market-near Next-generation Lithium Ion Batteries GA 653331 – WP2 leader
13. 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
14. 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
15. FP7-ICT-2009-5: SMARTEC Smart electrochromic active matrix components for stand-alone multifunctional devices (GA 258203) Responsabile Scientifico locale
16. FP7-NMP-2012-1: STABLE STable high-capacity lithium-Air Batteries with Long cycle life for Electric cars GA n 314508 – coordinatore del progetto
17. 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
18. Progetto Regione Piemonte Misura II.3 AMPERE - AUTOBUS MODULARI SU PIATTAFORMA ECOLOGICA A RECUPERO DI ENERGIA" 2010-2013 – responsabile scientifico locale
19. 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
20. 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
21. Progetto Regione Piemonte – piattaforma automotive 2012-2015 CARVOUR - coordinatore
22. Progetto Regione Piemonte – piattaforma automotive 2012-2015 PIE' VERDE - partecipante
23. Progetto Regione Piemonte – piattaforma automotive 2012-2015 iDEA partecipante
24. 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
25. PRIN 1998 Reattività e Morfologia di Catalizzatori DeNOx: Studi Spettroscopici e di Microscopia Elettronica - partecipante
26. PRIN 2000 MM03268231_004 Sintesi e caratterizzazione morfologica e cristallochimica di materiali a intercalazione di Litio con struttura a Spinello - partecipante
27. 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
28. FIRB 2003-2006, titolo: Silicon micromachined photodetectors based on MgB2 superconductor films - partecipante
29. 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
30. Interdipartimental Lab: SMART GRID partecipante
31. Contratto Rockwood – anno 2008 – per lo sviluppo di materiali catodici innovativi
32. 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.
33. Progetto CARIPLO – anno 2012 e 2013 – per lo studio di materiali elettrodici per celle litio-aria.

Other assignments and invitations

She was sent by MAE (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
Referent for the MAE Ministry for Relations with Bolivia in the Lithium Battery Industry (during his stay in Bolivia, assisted with local research activities. He received public praise from Bolivian and Italian ambassadors in Bolivia).
Silvia Bodoardo was invited to present scientific papers at international conferences; ISE 2013 at Queretaro - Mexico, Italian-India Electrochemical Days at New Dehli 2012, ILED 2012 in Rome and Scientific Member of EMRS 2011 Meetings and EMRS 2014 Fall Meeting; ISE confernece in Buenos Aires March 2017
Silvia Bodoardo has been a member of the organizing committee of several national and international conferences:
AICING 2006 Torino
EUCHEM 2010 Torino
EMRS Fall meeting 2011 Varsavia (Polonia)
EMRS Fall meeting 2014 Lille (France)
EMRS Fall meeting 2016 Varsavia (Polonia)
She was chairman in several international conferences
She has also been chairman for a new Horizon Prize on Innovative Batteries DG Research European Commission May 14th 2017
She presented a talk during FET day (Bruxelles 10 Jan 2018) and was rapporteur of table on mobility. She was in charge, with Marcel Meuss, Simon Perraud and Noshin Omar to reorganize new roadmaps on batteries.
Cochair in WG3 on advanced materials in the European Technology Innovation Platform BatteRIesEurope.
He also organized dissemination conferences on sustainable mobility, such as the days organized for the province of Turin within the European PROSESC project in March 2012.
He is also an active member of the Telios Foundation.
Referee of numerous international journals such as: Journal of Power Sources, Electrochemistry Acta, Thin Solid Film, Ionics, European Ceramic Society.

Selection of Main publications

1. 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).
2. Alidoost, Mojtaba; Caldera, Fabrizio; Versaci, Daniele; Zubair, Usman; Trotta, Francesco; Francia, Carlotta; Bodoardo, Silvia PEEK-WC / nanosponge membranes for lithium anode protection in rechargeable Li-O2 batteries / Amici, Julia;. - In: CHEMELECTROCHEM. - ISSN 2196-0216. - (2018).
3. Vankova, Svetoslava; Francia, Carlotta; Amici, JULIA GINETTE NICOLE; Zeng, Juqin; Bodoardo, Silvia; Penazzi, Nerino;Influence of Binders and Solvents on Stability of Ru/RuOx Nanoparticles on ITO Nanocrystals as Li–O2 Battery Cathodes / Collins, Gillian; Geaney, Hugh; O'Dwyer, Colm. - In: CHEMSUSCHEM. - ISSN 1864-5631. -10:3(2017), pp. 575-586.
4. 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.
5. 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
6. Zeng, J; Francia, C; Amici, J; Bodoardo, S; Penazzi, N (2015)
7. 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.
8. 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.
9. 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.

10. Bodoardo S. , Gerbaldi C., Meligrana G., Di Lupo F., Penazzi N., Fontana D. (2011) Hydrothermal Process for the production of LiFePO4 powder. WO 2011/057646 A1.