

# Curriculum vitae of Giovanni Battista Appetecchi



## Personal information

First name: Giovanni Battista  
Family name: Appetecchi  
Born: Civitavecchia (Rome), Italy, January 10, 1963  
Working address: ENEA-Casaccia, Via Anguillarese 301, 00123 S. Maria di Galeria (Rome)  
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**Actual position** Senior researcher at ENEA (Italian National Agency for New Technologies, Energy and Economic Sustainable Development), Casaccia Research Centre (Rome), Department for Sustainability (SSPT), Division for Sustainable Materials (PROMAS), Materials and Physicochemical Processes Technical Unit (MATPRO)

**Main topics** Research & Development of electrolyte/electrode materials/components for electrochemical energy storage systems; lithium metal & lithium-ion batteries; polymer & gel electrolytes; composite electrodes; ionic liquids

**Education** Nov. 21-26, 1993  
School of Electrochemistry, Energy Conversion & Storage, Modena (Italy); winner of the award for the work "*The optimal electrolyte for lithium batteries*"

Oct. 21, 1993  
Graduated in Industrial Chemistry at La Sapienza University of Rome, Title of the experimental thesis: "*Synthesis and physical-chemical characterization of PAN-based gel electrolytes*"

## Professional experience

Oct. 1 - Dec. 31, 2018 Visiting scientist at Karlsruhe Institute of Technology of the Helmholtz Institute of Ulm, Germany

Sept. 12 - Dec. 11, 2016 Visiting scientist at Karlsruhe Institute of Technology of the Helmholtz Institute of Ulm, Germany

Sept. 1 - Nov. 30, 2015 Visiting scientist at Karlsruhe Institute of Technology of the Helmholtz Institute of Ulm, Germany

Jan. 1 - Dec. 31, 2013 Sabbatical period as visiting scientist at La Sapienza University of Rome (Department of Chemistry)

From May 17, 2004	Researcher at ENEA in the field of electrochemical energy storage, lithium batteries and ionic liquids
Dec. 10, 2002 - May 16, 2004	Contract researcher at ENEA for research and development of gel polymer electrolytes and lithium battery components
Feb.1, 2002 - Sept.30, 2003	Contract researcher at La Sapienza University of Rome (Dept. of Chemistry) for research and development of polymer electrolytes prepared by hot-pressing and extrusion
May 1, 2000 - Mar. 30, 2002	Post-graduate fellow of Eldor Corporation Industry (Italy) for research and development of electrodes for lithium-ion batteries
Dec.11, 2000 - Dec.10, 2001	Contract researcher of DAIKIN INDUSTRIES Ltd (Japan) for research and development of polymer electrolytes based on cross-linked PolyFluoroSilicone precursors for lithium ion batteries
Nov. 1, 1999 - Apr. 30, 2000	Contract researcher at the University of Bologna (Dept. of Physical Chemistry) for research and development of solvent-free, polymer electrolytes for lithium metal batteries
Nov. 1, 1998 – Oct. 31, 1999	Contact researcher at ENEA-Casaccia for: i) preparation and characterization of lithium polymer battery components; ii) development of a interpretative equivalent model for composite cathodes utilized in lithium polymer batteries
July 1, 1998 - Oct.30 1998	Post-graduate fellowship of NEDO (International Joint Research Grant, Japan) for researches on new electrode/electrolyte materials for advanced lithium batteries
Aug.1, 1996 – June 30 1998	Post-graduate fellowship of Arcotronics Industry (Italy) for research and development of lithium polymer batteries for electric traction
Nov.1, 1995 - Sept.1, 1996	Post-graduate fellowship at La Sapienza University of Rome (Dept. of Chemistry) for researches on polymer gel electrolytes and plastic-like electrodes for lithium-ion batteries
Nov.1, 1993 - Oct.30, 1995	Post-graduate fellowship of SINAC-ARCOTRONICS Industries (Italy) for research and development of lithium metal polymer batteries for electric traction

### **Qualifications**

October 7, 2014	Qualified as full professor (Italian Scientific Qualifications accordingly to D.D. 161/2013, January 28, 2013) in the sector 03/B2 “Chemical Basis of Technology Applications”
December 1, 2014	Qualified as full professor (Italian Scientific Qualifications accordingly to D.D. 161/2013, January 28, 2013) in the sector 03/B1 “Principles of Chemistry and Inorganic Systems”

### **Charges**

June 1, 2019 - May 31, 2020	Scientific responsible for ENEA of the National Project PROMESSA ( <b>PRO</b> cesso <b>ME</b> ccanochimico non-convenzionale per la <b>S</b> intesi <b>S</b> ostenibile di materiali <b>A</b> nodici a elevata capacità), Grant number SSPT-201801, in the frame of the Proof of Concept Program supported by ENEA
Jan. 1, 2019 - Jan. 31, 2023	Scientific responsible for ENEA of the European Project Si-DRIVE ( <b>S</b> ilicon Alloying anodes for high energy <b>D</b> ensity batteries comprising lithium <b>R</b> ich cathodes and safe <b>I</b> onic

liquid based electrolytes for enhanced High Voltage performance) H2020-NMBP-ST-IND-2018” (Topic LC-NMBP-30-2018)

- Apr. 1, 2016 - Dec. 31, 2018 Scientific responsible for ENEA of the European Project ECO COMBAT (**ECO**logical **COM**posites for high-efficient li-ion **BAT**teries) under Framework Partnership Agreement No. [FPA 2016/EIT/EIT Raw Materials], Specific Agreement No. EIT/ EIT RAW MATERIALS/SGA2016/1, KIC Raw Materials Internal Agreement of DE. 4, 2015
- Nov. 1, 2013 - Oct. 31, 2017 Scientific responsible for ENEA of the European Project MARS-EV (**M**aterials **A**geing **R**esistant li-ion high energy **S**torage for the **E**lectric **V**ehicle), Grant agreement n°609201 (GC.NMP.2013-1)
- Nov. 1, 2011 - Oct. 31, 2015 Scientific responsible for ENEA of the European Project GREENLION (*Eco-manufacturing of **GREEN Lithium ION** batteries*) Grant agreement n°285268 (GC.NMP.2011-1GC.SST.2011.7-7. ENV)
- May 1, 2010 - Oct. 31, 2013 Scientific responsible for ENEA of the European Project HELIOS (**H**igh **E**nergy **L**ithium-**I**on **S**torage solutions), Grant agreement n°233765 (SST.2008.1.1.2.)
- Oct. 1, 2010 - Sept. 30, 2012 Scientific responsible for ENEA of the research activities on electrochemical storage in the frame of the National Program (*Electric Research System*) Agreement between the Italian Ministry of the Economic Development and ENEA
- March 1, 2009 - Aug. 31, 2012 Scientific responsible for ENEA of the research activities on electrochemical storage in the frame of the National Project ALADIN (Nuova generazione di sistemi di illuminazione/segna**l**azione intelligenti a**D** alta efficienza che incorporano generazione ed accumulo energetico) in the frame of the Program Industria 2015 (Bando Efficienza Energetica) supported by the Italian Ministry of the Economic Development
- March 1, 2008 - June 30, 2010 Scientific responsible for ENEA of the European Project ILLIBATT (Ionic Liquid-based Lithium **BAT**teries), STRP033181 (FP6-2004-NMP-TI-4)
- March 1, 2008 – May 31, 2009 Scientific responsible for ENEA of the European Project ILHYPOS (Ionic Liquid-based **HY**brid **PO**wer **S**upercapacitors), Grant agreement n°518307

### Involvement in other projects

- Jan.1, 2007 – Feb. 28, 2008 European Project ILLIBATT (ENEA)
- Dec.1, 2005 – Feb. 28, 2008 European Project ILHYPOS (ENEA)
- July 1, 2003 – Dec. 31, 2005 Program MURST L. 95/95 (ENEA); Project 1 (Lithium polymer batteries for electric vehicles); Project 2 (Rechargeable lithium batteries for consumers)
- Nov. 2, 1993 – June 30, 1998 National and foreign projects on Research & Development of materials/components for lithium batteries (La Sapienza University of Rome/ENEA)
- Nov. 2, 1993 – June 30, 1998 Integrated National Project A.L.P.E. (Advanced Lithium Polymer Electrolytes) supported by the Italian Ministry of the Economic Development (La Sapienza University of Rome /ENEA)

## **Committees**

From Dec. 2018	Guest Editor of the Special Issue “Composite Electrode Membranes for Electrochemical Energy Storage & Conversion Devices” of the Journal <i>Membranes</i>
From Dec. 2018	Editorial Board Member of the Journal <i>Membranes</i>
From Dec. 2018	Editorial Board Member of the International Journal of Molecular Sciences for the Section “Materials Science”
April 2018 – Dec. 2019	Member of the Scientific Board the 6 <sup>th</sup> Edition of the International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2018), Rome (Italy), September 9-11, 2018
From Nov. 2017	Guest Editor of the Special Issue “Membranes for Lithium Batteries” of the journal <i>Membranes</i>
April 3, 2017	Chairman for the MARS-EV Workshop “On the cutting edge of high energy materials for lithium-ion batteries”, ENEA Headquarters, Rome
Sept. 19 -21, 2016	Co-Chairman for the Symposium <i>N</i> “Materials for electrochemical storage systems for the electric vehicles” at the EMRS Fall 2016 Meeting in Warsaw (Poland)
From 2001	Member of numerous graduation and PhD committees in National and Foreign Universities

## **Supervision**

From 1998	Dr. G.B. Appetecchi is/was supervisor of numerous ungraduated/graduated students (national and foreign) at ENEA and La Sapienza University of Rome
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## **Awards**

Nov. 8, 2012	Winner of the Award “Energia e Mobilità 2012” from “H2 Roma Energy & Mobility show” (Rome, Nov. 8-10, 2012) for the scientific article “ <i>Development of ionic liquid-based lithium battery prototypes</i> ” published in Journal of Power Sources, year 2012, volume 199, page 239
Nov. 8, 2011	Winner of the Award “Energia e Mobilità 2011” from “H2 Roma Energy & Mobility show” (Rome, Nov. 8-10, 2011) for the scientific article “ <i>Synthesis of hydrophobic ionic liquids for electrochemical applications</i> ” published in Journal of Electrochemical Society, year 2006, volume 153, page A1685
May 2, 1996	Winner of the Award “ <i>Rotary Club Firenze Est - Herberto Hauda</i> ” for the investigation performed at University of Rome “La Sapienza” in the frame of Chemistry and Technology of Polymers

## Publications

H-index = 51, Citations: 9,296

- 1) F. Croce, F. Gerace, G. Dautzenberg, S. Passerini, G.B. Appetecchi, B. Scrosati;  
**"Synthesis and characterization of highly conducting gel electrolytes".**  
Electrochimica Acta, 39 (1994) 2187-2194.
- 2) G.B. Appetecchi, F. Croce, B. Scrosati;  
**"Gelionics for lithium battery applications".**  
Proceedings of the 36<sup>th</sup> Power Sources Conference, ARL, 1994 (pages 233-235).
- 3) S. Kakuda, T. Momma, T. Osaka, G.B. Appetecchi, B. Scrosati;  
**"Ambient-temperature, rechargeable, all-solid lithium/polypyrrole polymer battery."**  
Journal of The Electrochemical Society, 142 (1995) L1-L2.
- 4) G.B. Appetecchi, F. Croce, B. Scrosati;  
**"Kinetics and stability of the lithium electrode in poly(methylmethacrylate)-based gel electrolytes".**  
Electrochimica Acta, 40 (1995) 991-997.
- 5) E. Cazzanelli, G. Mariotto, F. Croce, G.B. Appetecchi, B. Scrosati;  
**"Study of ion-molecule interaction in poly(methylmethacrylate)-based gel electrolytes by raman spectroscopy".**  
Electrochimica Acta, 40 (1995) 2379-2382.
- 6) P. Mustarelli, C. Tomasi, M. Villa, G.B. Appetecchi, F. Croce;  
**"Lattice and ion dynamics in gel electrolytes based on poly(acrylonitrile) by <sup>6</sup>Li-<sup>7</sup>Li NMR".**  
Ionics, 1 (1995) 147-152.
- 7) G.B. Appetecchi, F. Croce, F. Gerace, S. Panero, S. Passerini, E. Spila, B. Scrosati;  
**"New concepts in primary and rechargeable solid state lithium polymer batteries".**  
Proceedings of "Material Research Society Symposium", Vol. 369, MRS, Pu. 1995, 495-504.
- 8) G.B. Appetecchi, F. Croce, E. Moyroud, B. Scrosati;  
**"A thin layer, solid state, primary Li/Ag<sub>2</sub>CrO<sub>4</sub> polymer battery".**  
Journal of Applied Electrochemistry, 25 (1995) 987-988.
- 9) G.B. Appetecchi, G. Dautzenberg, B. Scrosati;  
**"Highly conductive gel electrolyte membranes".**  
Proceedings of International Workshop on Advanced Batteries, 1995, 72-81.
- 10) V.R. Koch, C. Nanjundiah, G.B. Appetecchi, B. Scrosati;  
**"The interfacial stability of Li with two new solvent-free ionic liquids; 1,2 dimethyl-3-propylimidazolium imide and methide".**  
Journal of The Electrochemical Society, 142 (1995) L116-L118.
- 11) G.B. Appetecchi, G. Dautzenberg, B. Scrosati;  
**"A new class of advanced polymer electrolytes and their relevance in plastic-like, rechargeable lithium batteries".**  
Journal of The Electrochemical Society, 143 (1996) 6-12.
- 12) E. Cazzanelli, G. Mariotto, G.B. Appetecchi, F. Croce;  
**"Raman study of ion-molecules interaction in poly(methylmethacrylate)-based gel electrolytes".**  
Ionics, 2 (1996) 81-87.

- 13) E. Cazzanelli, P. Mustarelli, F. Benevelli, G.B. Appetecchi, F. Croce;  
**“Raman and NMR analysis of LiClO<sub>4</sub> concentrated solutions in ethylene carbonate-propylene carbonate”**.  
 Solid State Ionics, 86-88 (1996) 379-384.
- 14) F. Croce, G.B. Appetecchi, S. Slane, M. Salomon, M. Tavaréz, S. Arumugam, Y. Wang, S.G. Greenbaum;  
**“Impedance and lithium<sup>7</sup>-NMR studies of polymer electrolytes based on poly(vinylidene fluoride)”**.  
 Solid State Ionics, 86-88 (1996) 307-312.
- 15) G.B. Appetecchi, F. Croce, G. Dautzenberg, S. Panero, B. Scrosati;  
**“Thin-film polymers for solid ionic devices”**.  
 Proceedings “Thin Film Solid Ionic Devices and Materials”, J. Bates Ed., Volume 95-22, The Electrochemical Society, 1996, 13-22.
- 16) F. Croce, G.B. Appetecchi, F. Ronci, Y. Wang, Y. Dai, S.G. Greenbaum, M. Salomon;  
**“Effect of nanoscale-size particles addition on the electrochemical properties of poly(vinylidene fluoride)-based solid polymer electrolytes”**.  
 Proceedings of the Symposium on Lithium Polymer Batteries, Electrochemical Society Proceeding, 1996, Volume 96-17, 162-167.
- 17) G.B. Appetecchi, F. Croce, G. Dautzenberg, F. Gerace, B. Scrosati;  
**“Novel electrolyte materials for lithium plastic batteries”**.  
 Proceedings of the Symposium on Lithium Polymer Batteries, Electrochemical Society Proceeding, 1996, Volume 96-17, 52-53.
- 18) G.B. Appetecchi, F. Croce, G. Dautzenberg, F. Gerace, S. Panero, F. Ronci, E. Spila, B. Scrosati;  
**“New generation of polymer electrolytes and their impact on the technology of advanced electrochemical power sources”**.  
 Gazzetta Chimica Italiana, 126 (1996) 405-413.
- 19) G.B. Appetecchi, F. Croce, B. Scrosati;  
**“High performance electrolyte membranes for plastic lithium batteries”**.  
 Journal of Power Sources, 66 (1997) 77-82.
- 20) V. Rossi Albertini, G.B. Appetecchi, R. Caminiti, F. Croce, F. Cilloco, C. Sadun;  
**“Crystallization kinetics of PEO-alkaline perchlorate solutions observed by energy dispersive X-ray diffraction”**.  
 Journal of Macromolecular Science-Physic, B36(5) (1997) 629-641.
- 21) E. Cazzanelli, F. Croce, G.B. Appetecchi, F. Benevelli, P. Mustarelli;  
**“Li<sup>+</sup> solvation in ethylenecarbonate-propylene carbonate concentrated solutions: a comprehensive model”**.  
 Journal of Chemical Physic, 107 (1997) 5740-5747.
- 22) G.B. Appetecchi, B. Scrosati;  
**A lithium plastic battery using a Cr-stabilized manganese spinel cathode”**.  
 Journal of The Electrochemical Society, 144 (1997) L138-L140.
- 23) A. Deptula, W. Lada, F. Croce, G.B. Appetecchi, A. Ciancia, L. Giorgi, A. Brignocchi, A. Di Bartolomeo;  
**“Synthesis and preliminary electrochemical characterization of Li<sub>x</sub>Mn<sub>2</sub>O<sub>4+d</sub> (x= 0.55-1.1) powders obtained by the complex sol gel process (CSGP)”**.  
 Proceedings of Second International Symposium on “New Materials for Fuel Cell and Modern Battery Systems”, Editors O. Savadogo and P.R. Roberge, published at Ecole Polytechnique de Montreal (ISBN2-553-00624-1), 1997, 732-742.

- 24) G.B. Appetecchi, F. Croce, B. Scrosati, M. Wakihara;  
**“Plastic lithium batteries”**.  
 Proceedings of the Symposium Volume “Batteries for Portable and Electric Vehicle Applications”, Joint International Meeting of Electrochemical Society and International Society of Electrochemistry, Volume PV97-18, 1997, 1-6.
- 25) G.B. Appetecchi, F. Croce, F. Gerace, S. Panero, E. Spila, B. Scrosati;  
**“Electrode and electrolyte materials for plastic lithium ion batteries”**.  
 Gazzetta Chimica Italiana, 127 (1997) 325-330.
- 26) E. Quartarone, C. Tomasi, P. Mustarelli, G.B. Appetecchi, F. Croce;  
**“Long-term structural stability of PMMA-based gel polymer electrolytes”**.  
 Electrochimica Acta, 43 (1998) 1435-1439.
- 27) F. Croce, G.B. Appetecchi, P. Mustarelli, E. Quartarone, C. Tomasi, E. Cazzanelli;  
**“Investigation of ion dynamics in  $\text{LiClO}_4/\text{EC}/\text{PC}$  highly concentrated solutions by ionic conductivity and DSC measurements”**.  
 Electrochimica Acta, 43 (1998) 1441-1446.
- 28) G.B. Appetecchi, F. Croce, G. Dautzenberg and B. Scrosati;  
**“Dry composite polymer electrolytes for lithium batteries”**.  
 Proceedings Symposium Y “Materials for Electrochemical Energy Storage and Conversion MRS Symposium Proceedings Series, 496 (1998) 511-516.
- 29) D. Ostrovskii, L.M. Torell; G.B. Appetecchi, B. Scrosati;  
**“An electrochemical and raman spectroscopical study of gel polymer electrolytes for lithium batteries”**.  
 Solid State Ionics, 106 (1998) 19-24.
- 30) G.B. Appetecchi, B. Scrosati;  
**“A lithium ion polymer battery”**.  
 Electrochimica Acta, 43 (1998) 1105-1107.
- 31) F. Croce, G.B. Appetecchi, L. Persi, B. Scrosati;  
**“Nanocomposite polymer electrolytes for lithium batteries”**.  
 Nature, 394 (1998) 456-458.
- 32) D. Ostrovskii, A. Brodin, L.M. Torell; G.B. Appetecchi, B. Scrosati;  
**“Molecular and ionic interactions in poly(acrylonitrile)-and poly(methylmethacrylate)-based gel electrolytes”**.  
 Journal of Chemical Physics, 109 (1998) 7618-7624.
- 33) G.B. Appetecchi, F. Croce, G. Dautzenberg, F. Ronci, B. Scrosati; M. Mastragostino, F. Soavi, A. Zanelli;  
 F. Alessandrini, M. Carewska, P.P. Prosini;  
**“Composite polymer electrolytes with improved lithium metal electrode interfacial properties. I. Electrochemical properties of dry PEO-LiX systems”**.  
 Journal of The Electrochemical Society, 145 (1998) 4126-4132.
- 34) G.B. Appetecchi, F. Croce, B. Scrosati; M. Mastragostino, F. Soavi, A. Zanelli;  
**“Composite polymer electrolytes with improved lithium metal electrode interfacial properties. II. Application in rechargeable batteries”**.  
 Journal of The Electrochemical Society, 145 (1998) 4133-4135.
- 35) G.B. Appetecchi, B. Scrosati;  
**“A  $\text{C}/\text{LiCr}_y\text{Mn}_{2-y}\text{O}_4$  lithium ion polymer electrolyte battery”**.

- Denki-Kagacu, 66 (1998) 1299-1303.
- 36) G.B. Appetecchi, S. Panero, E. Spila, B. Scrosati;  
**"Plastic power sources"**.  
Journal of Applied Electrochemistry, 28 (1998) 1299-1304.
- 37) M.C. Borghini, M. Mastragostino, A. Zanelli; G.B. Appetecchi, F. Croce, B. Scrosati; M. Conte, S. Passerini, P.P. Prosini; P.G. Bernini, S. Saguatti;  
**"Accumulatori solidi al litio con componenti polimerici"**.  
Automazione Energia Informazione, 85 (1998) 62-64.
- 38) G.B. Appetecchi, F. Croce, A. De Paolis, B. Scrosati;  
**"A poly(vinylidene fluoride)-based gel electrolyte membrane for lithium batteries"**.  
Journal of Electroanalytical Chemistry, 463 (1999) 248-252.
- 39) G.B. Appetecchi, F. Croce, P. Romagnoli, B. Scrosati, U. Heider, R. Oesten;  
**"High-performance gel-type lithium electrolyte membranes"**.  
Electrochemistry Communications, 1 (1999) 83-86.
- 40) G.B. Appetecchi, F. Croce, R. Marassi, L. Persi, P. Romagnoli, B. Scrosati;  
**"Lithium insertion into carbonaceous materials and transition metal oxides from high performance polymer electrolytes"**.  
Electrochimica Acta, 45 (1999) 23-30.
- 41) G.B. Appetecchi, F. Croce, F. Ronci, B. Scrosati; F. Alessandrini, M. Carewska, P.P. Prosini;  
**"Electrochemical characterization of a composite polymer electrolyte with improved lithium metal electrode interfacial properties"**.  
Ionics, 5 (1999) 59-63.
- 42) G.B. Appetecchi, F. Croce, L. Persi, F. Ronci, B. Scrosati;  
**"Transport and interfacial properties of composite polymer electrolytes"**.  
Electrochimica Acta, 45 (2000) 1481-1490.
- 43) G.B. Appetecchi, M. Carewska, F. Alessandrini, P.P. Prosini, S. Passerini;  
**"Characterization of PEO-based composite cathodes. I. Morphological, thermal, mechanical and electrical properties"**.  
Journal of The Electrochemical Society, 147 (2000) 451-459.
- 44) G.B. Appetecchi, S. Passerini;  
**"PEO-carbon composite lithium polymer electrolyte"**.  
Electrochimica Acta, 45 (2000) 2139-2145.
- 45) G.B. Appetecchi, S. Scaccia, S. Passerini;  
**"Investigation on the stability of the lithium-polymer electrolyte interface"**.  
Journal of The Electrochemical Society, 147 (2000) 4448-4452.
- 46) M. Carewska, G.B. Appetecchi, F. Cardellini, S. Passerini;  
**"Synthesis of a bi-continuous electrically conductive nanocomposite via in-situ formation of RuO<sub>2</sub> nanoparticles"**.  
Solid State Ionics, 139 (2001) 211-218.
- 47) G.B. Appetecchi, F. Alessandrini, M. Carewska, T. Caruso, P.P. Prosini, S. Scaccia, S. Passerini;  
**"Investigation on the lithium polymer electrolyte batteries"**.  
Journal of Power Sources, 97 (2001) 790-794.



- 48) G.B. Appetecchi, F. Alessandrini, R.G. Duan, A. Arzu, S. Passerini;  
**“Electrochemical testing of industrially produced PEO-based polymer electrolytes”**.  
 Journal of Power Sources, 1 (2001) 42-46.
- 49) G.B. Appetecchi, F. Croce, R. Marassi, S. Panero, F. Ronci, G. Savo, B. Scrosati;  
**“Novel types of lithium ion polymer electrolyte batteries”**.  
 Solid State Ionics, 143 (2001) 73-81.
- 50) G.B. Appetecchi, P. Romagnoli, B. Scrosati;  
**“Composite gel membranes: a new class of improved polymer electrolytes for lithium batteries”**.  
 Electrochemistry Communications, 3 (2001) 281-284.
- 51) G.B. Appetecchi, W. Henderson, P. Villano, M. Berrettoni, S. Passerini;  
**“PEO-LiN(SO<sub>2</sub>CF<sub>2</sub>CF<sub>3</sub>)<sub>2</sub> polymer electrolytes. I. XRD, DSC and ionic conductivity characterization”**.  
 Journal of The Electrochemical Society, 148 (2001) 1171-1178.
- 52) S. Passerini, G.B. Appetecchi, P. Villano, M. Carewska, M.G. Puppo;  
**“PEO-LiBETI dry polymer electrolyte for EV lithium batteries”**.  
 Proceedings of the 200<sup>th</sup> Meeting of The Electrochemical Society, The Electrochemical Society Inc., G.A. Nazri Ed., San Francisco, Ca, USA, 2001, Abs. 94.
- 53) G.B. Appetecchi, S. Passerini;  
**“PEO-LiN(SO<sub>2</sub>CF<sub>2</sub>CF<sub>3</sub>)<sub>2</sub> polymer electrolytes. II. Characterization of the interface with lithium”**.  
 Journal of The Electrochemical Society, 149 (2002) A891-A897.
- 54) Y. Aihara, G.B. Appetecchi, B. Scrosati;  
**“A new concept for the formation of homogeneous gel-type polymer electrolytes”**.  
 Journal of The Electrochemical Society, 149 (2002) A849-A854.
- 55) G. Ardel, D. Golodnitsky, K. Freedman, E. Peled, G.B. Appetecchi, P. Romagnoli, B. Scrosati;  
**“Rechargeable lithium/hybrid-electrolyte/pyrite battery”**.  
 Journal of Power Sources, 110 (2002) 152-162.
- 56) Y. Aihara, G.B. Appetecchi, B. Scrosati, K. Hayamizu;  
**“Investigation on the ionic conduction mechanism of composite poly(ethyleneoxide) PEO-based polymer gel electrolytes including nano-size SiO<sub>2</sub>”**.  
 Journal of Physical Chemistry, 4 (2002) 3443-3447.
- 57) P. Villano, M. Carewska, G.B. Appetecchi, S. Passerini;  
**“PEO-LiN(SO<sub>2</sub>CF<sub>2</sub>CF<sub>3</sub>)<sub>2</sub> polymer electrolytes. III. Tests in batteries”**.  
 Journal of The Electrochemical Society, 149 (2002) A1282-A1285.
- 58) G.B. Appetecchi, F. Croce, J. Hassoun, B. Scrosati, M. Salomon, F. Cassel;  
**“Hot-pressed, dry, composite, PEO-based electrolyte membranes. I. Ionic conductivity characterization”**.  
 Journal of Power Sources, 114 (2003) 105-112.
- 59) G.B. Appetecchi, Y. Aihara, B. Scrosati;  
**“Investigation of swelling phenomena in Poly(Ethyleneoxide)-based polymer electrolytes. III. Preliminary battery tests”**.  
 Journal of The Electrochemical Society, 150 (2003) A301-A305.
- 60) G.B. Appetecchi, F. Croce, J. Hassoun, B. Scrosati, M. Salomon, F. Cassel;  
**“Hot-pressed, solvent-free, nanocomposite, PEO-based electrolyte membranes”**.

## II. All-solid, Li/LiFePO<sub>4</sub> polymer batteries”.

Journal of Power Sources, 124 (2003) 246-253.

- 61) G.B. Appetecchi, Y. Aihara, B. Scrosati;  
**“Investigation of swelling phenomena in PEO-based polymer electrolytes. II. Chemical and electrochemical characterization”**.  
Solid State Ionics, 170 (2004) 63-72.
- 62) G.B. Appetecchi, F. Alessandrini, S. Passerini, G. Caporiccio, B. Boutevin, F. Guida-Pietra Santa;  
**“Novel polymeric systems for lithium-ion batteries gel electrolytes. I. Cross-linked PolyFluoroSilicone”**.  
Electrochimica Acta, 50 (2004) 149-158.
- 63) G.B. Appetecchi, D. Zane, B. Scrosati;  
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- 3) O. Miguel, I. Cendoya, G.-T Kim, N. Löffler, N. Laszczynski, S. Passerini, P.M. Schweizer, F. Castiglione, A. Mele, G.B. Appetecchi, M. Moreno, M. Brandon, T. Kennedy, E. Mullane, K.M. Ryan, M. Olive, I. de Meazza;  
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## Book Editor

- 1) **Composite Electrolyte & Electrode Membranes for Electrochemical Energy Storage & Conversion Devices**, edited by Giovanni Battista Appetecchi, printed edition of the Special Issue Published in *Membranes*, MDPI St. Alban-Anlage 66, 4052 Basel, Switzerland, 2020.

## Invited lectures

- 1) G.B. Appetecchi;  
**“Polymeric ionic liquids as advanced hosts for solvent-free, polymer electrolytes in all-solid-state, electrochemical storage devices”**.  
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- 2) G.B. Appetecchi;  
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- 3) G.B. Appetecchi;  
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- 4) G.B. Appetecchi;  
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- 5) G.B. Appetecchi;  
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- 6) G.B. Appetecchi;  
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- 7) G.B. Appetecchi;  
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*MARS-EV Seminar: Energy materials for Lithium ion batteries, Torino (Italy), June 27, 2017.*
- 8) G.B. Appetecchi;  
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- 9) G.B. Appetecchi;  
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ItaKa: The 1<sup>st</sup> Italian-Korean Bilateral Workshop on Electrochemical Energy Storage Università degli Studi di Milano “Bicocca”, Milan (Italy), October 25-26, 2018.
- 10) G.B. Appetecchi;  
**“Advanced electrolyte/electrode materials for electrochemical energy storage devices”**.  
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- 11) G.B. Appetecchi;  
**“Advanced electrolyte materials for safer electrochemical energy storage devices”**.  
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- 12) G.B. Appetecchi;

**“Advanced electrolyte components for electrochemical energy storage systems”.**

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13) G.B. Appetecchi;

**“Innovative electrolyte components for safer electrochemical energy storage devices”.**

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14) G.B. Appetecchi;

**“Electrolyte systems for rechargeable lithium batteries”.**

Materials Engineering Doctoral School, Polytechnic of Turin, Department of Applied Science and Technology, Turin, May 4, 2020.

## Oral communications at scientific international meetings

- 1) F. Croce, F. Gerace, G. Dautzenberg, S. Passerini, G.B. Appetecchi, B. Scrosati;  
**"Synthesis and characterization of highly conducting gel electrolytes"**.  
*183<sup>rd</sup> Meeting of The Electrochemical Society, Inc., Honolulu (Hawaii), May 16-21, 1993.*
- 2) G.B. Appetecchi, F. Croce, F. Gerace;  
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*GEI 93 (Giornate dell'Elettrochimica Italiana), Trieste (Italy), 25-28 Ottobre 1993.*
- 3) G.B. Appetecchi, F. Croce, B. Scrosati;  
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- 4) G.B. Appetecchi, F. Croce, G. Dautzenberg, F. Gerace, B. Scrosati;  
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*Fourth International Symposium on Polymer Electrolytes, Newport, Rhode Island, June 19-24, 1994.*
- 5) E. Cazzanelli, G. Mariotto, G.B. Appetecchi, F. Croce, B. Scrosati;  
**"Study of molecular interactions in poly(methylmethacrylate)-based gel electrolytes using raman spectroscopy"**.  
*Fourth International Symposium on Polymer Electrolytes, Newport, Rhode Island, June 19-24, 1994.*
- 6) E. Cazzanelli, G. Mariotto, G.B. Appetecchi, F. Croce, B. Scrosati;  
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- 7) P. Mustarelli, C. Tomasi, F. Croce, G.B. Appetecchi;  
**"<sup>6</sup>Li-<sup>7</sup>Li NMR, conductivity and thermal studies of gel electrolytes based on poly(acrylonitrile)"**.  
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- 8) G.B. Appetecchi, M. C. Borghini, G. Dautzenberg, M. Mastragostino, B. Scrosati, A. Zanelli;  
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*GEI 94 (Giornate dell'Elettrochimica Italiana), Padova (Italy), October 11-14, 1994.*
- 9) G.B. Appetecchi, F. Croce, F. Gerace, S. Panero, S. Passerini, E. Spila, B. Scrosati;  
**"New concepts in primary and rechargeable solid state lithium polymer batteries"**.  
*Material Research Society Symposium, Pittsburg (PA), 1995.*
- 10) P. Mustarelli, C. Tomasi, F. Croce, G.B. Appetecchi;  
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*2<sup>o</sup> Convegno Scientifico del Consorzio InterUniversitario Nazionale per la Chimica dei Materiali, Firenze (Italy), February 13-15, 1995.*
- 11) G.B. Appetecchi, G. Dautzenberg, B. Scrosati;  
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*International Workshop on Advanced Batteries, Osaka (Japan), February 22-24, 1995.*
- 12) G.B. Appetecchi, F. Croce, B. Scrosati;  
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- 15) G.B. Appetecchi, G. Dautzenberg, B. Scrosati;  
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*XIX Congresso Nazionale Ricerca e Tecnologia, Riccione (Italy), June 9-14, 1996.*
- 16) G.B. Appetecchi, F. Croce, F. Ronci, B. Scrosati;  
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*8<sup>th</sup> International Meeting on Lithium Batteries, Nagoya (Japan), June 16-21, 1996.*
- 17) G.B. Appetecchi, F. Croce, B. Scrosati;  
**“High performance polymer electrolytes for new types of solid state devices”**.  
*Fifth International Symposium on Polymer Electrolytes, Uppsala (Sweden), August 11-16, 1996.*
- 18) E. Quartarone, C. Tomasi, P. Mustarelli; G.B. Appetecchi, F. Croce; E. Cazzanelli;  
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*Fifth International Symposium on Polymer Electrolytes, Uppsala (Sweden), August 11-16, 1996.*
- 19) F. Croce, G.B. Appetecchi; E. Quartarone, C. Tomasi, P. Mustarelli; E. Cazzanelli;  
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- 20) G.B. Appetecchi, F. Croce and F. Ronci;  
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- 21) S.G. Greenbaum, Y. Dai, Y. Wang, M. Salomon, F. Croce, G.B. Appetecchi, F. Ronci;  
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- 22) B. Scrosati, G.B. Appetecchi, F. Croce, G. Dautzenberg, F. Gerace;  
**“Novel electrolyte materials for lithium plastic batteries”**.  
*Symposium on Lithium Polymer Batteries, San Antonio (Texas), October 6-11, 1996.*
- 23) S. Saguatti, P. Bernini; F. Alessandrini, M. Carewska, M. Conte, L. Giorgi, S. Passerini, P. Prosini, R. Vellone;  
M.C. Borghini, M. Mastragostino, A. Zanelli; G.B. Appetecchi, F. Croce, G. Dautzenberg, B. Scrosati;  
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*International Conference on: Applications of Conducting Polymers: Batteries, Electrochromics, Supercapacitors and Other Devices, Rome (Italy), April, 13-16, 1997.*
- 24) A. Deptula, W. Lada, F. Croce, G.B. Appetecchi, A. Ciancia, L. Giorgi, A. Brignocchi, A. Di Bartolomeo;  
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- 25) G.B. Appetecchi, F. Croce, B. Scrosati, M. Wakihara;  
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- 26) G.B. Appetecchi, F. Croce, G. Dautzenberg, B. Scrosati;  
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- 27) G.B. Appetecchi, F. Croce, B. Scrosati;  
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- 28) F. Croce, G.B. Appetecchi, L. Persi, B. Scrosati;  
**"Nanocomposite polymer electrolytes"**.  
*193<sup>rd</sup> Meeting of the Electrochemical Society, S. Diego (California), May 1998.*
- 29) M. Furlani, G.B. Appetecchi, F. Ronci, B.E. Mellander, B. Scrosati;  
**"Stability and ion conductivity of polyethylene oxide-LiCF<sub>3</sub>SO<sub>3</sub> electrolytes plasticized with perfluoroethers in the presence of lithium electrodes"**.  
*9<sup>th</sup> International Meeting on Lithium Batteries', Edinburgh (Scotland), July 12-17, 1998.*
- 30) G.B. Appetecchi, F. Croce, F. Ronci, B. Scrosati; F. Alessandrini, M. Carewska, P.P. Prosini;  
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- 31) G.B. Appetecchi, F. Croce, B. Scrosati;  
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- 33) G.B. Appetecchi, F. Croce, L. Persi, B. Scrosati;  
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- 34) G.B. Appetecchi, M. Carewska, F. Alessandrini, P.P. Prosini, S. Passerini;  
**"Characterization of PEO-based composite cathodes"**.  
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- 35) G.B. Appetecchi, M. Carewska, F. Alessandrini, P.P. Prosini, S. Passerini;  
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- 36) G.B. Appetecchi, F. Alessandrini, S. Passerini;

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- 38) G.B. Appetecchi, F. Alessandrini, M. Carewska, T. Caruso, P.P. Prosini, S. Scaccia, S. Passerini;  
**“Investigation on the lithium polymer electrolyte batteries”.**  
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- 39) G. Ardel, D. Golodnitsky, E. Peled; G.B. Appetecchi, P. Romagnoli, B. Scrosati;  
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- 40) G.B. Appetecchi, Y. Aihara, B. Scrosati;  
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- 41) S. Passerini, G.B. Appetecchi, P. Villano, M. Carewska, M.G. Puppo;  
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- 42) S. Passerini, G.B. Appetecchi, P. Villano, M. Carewska, M.G. Puppo;  
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- 43) G.B. Appetecchi, F. Croce, A. D'Epifanio, J. Hassoun, L. Persi, B. Scrosati;  
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*11<sup>th</sup> International Meeting on Lithium Batteries, Monterey, California, June 23-28, 2002.*
- 44) G.B. Appetecchi, F. Croce, J. Hassoun, M. Salomon, B. Scrosati;  
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- 45) G.B. Appetecchi, D. Zane, B. Scrosati;  
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- 46) A. Blazejczyk, W. Wieczorek; G.B. Appetecchi, B. Scrosati; D. Golodnitsky, R. Kovarsky, E. Peled;  
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- 47) G.B. Appetecchi, D. Zane, B. Scrosati;  
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- 48) P.P. Prosini, G.B. Appetecchi, P. Villano, M. Lisi; M. Carewska, M.G. Puppo, P. Bernini;

- “Free-standing lithium-ion batteries with a novel intrinsically porous separator”**.  
12<sup>th</sup> International Meeting on Lithium Batteries, Nara (Japan), June 27-July 2, 2004.
- 49) G.B. Appetecchi, D. Zane, B. Scrosati;  
**“Dry LiBOB-based polymer electrolytes for lithium batteries”**.  
12<sup>th</sup> International Meeting on Lithium Batteries, Nara (Japan), June 27-July 2, 2004.
- 50) W.H. Henderson, J.-H Shin, G.B. Appetecchi, F. Alessandrini, S. Passerini;  
**“Recent developments of ENEA lithium metal battery project”**  
9<sup>th</sup> International Symposium on Polymer Electrolytes, Mragowo (Poland), August 22-27, 2004.
- 51) A. Balducci, P. Simon, M. Mastragostino, F. Soavi, G.B. Appetecchi, S. Passerini;  
**“Hybrid supercapacitors with ionic liquids as solvent-free electrolytes”**.  
7<sup>th</sup> International Symposium on Molten Salty Chemistry & Technology, Toulouse (France), 29 August-2 September, 2005.
- 52) C. Tizzani, G.B. Appetecchi, F. Alessandrini, S. Passerini;  
**“Solvent-free polymer electrolyte based on PYR<sub>14</sub>TFSI ionic liquid”**.  
GEI 2005 (Giornate dell’Elettrochimica Italiana), Spoleto (Italy), September 11-15, 2005.
- 53) S. Passerini, F. Alessandrini, G.B. Appetecchi, M. Conte;  
**“Ionic liquid-based electrolytes for high energy electrochemical storage devices”**.  
208<sup>th</sup> Meeting of The Electrochemical Society, Los Angeles (California), October 16-21, 2005.
- 54) S. Passerini, G.B. Appetecchi, W.A. Henderson, G.-T. Kim, C. Tizzani;  
**“Investigation on polymer-LiX-IL systems for electrochemical applications”**.  
2<sup>nd</sup> Australian Symposium on Ionic Liquids, Clayton (Australia), May 11-12, 2006.
- 55) S. Passerini, G.B. Appetecchi, S. Randstrom, M. Montanino, F. Alessandrini;  
**“Investigation on ionic liquids as electrolytes for electrochemical supercapacitors”**.  
International Conference on Advanced Capacitors, Kyoto (Japan), May 28-30, 2007.
- 56) G.B. Appetecchi, G.-T. Kim, F. Alessandrini, S. Passerini;  
**“Solvent-free, PYR<sub>1A</sub>TFSI ionic liquids-based ternary polymer electrolytes for low temperatures lithium battery systems”**.  
International Conference on Polymer Batteries-Fuel Cells, Rome (Italy), June 11-14, 2007.
- 57) G.-T. Kim, G.B. Appetecchi, M. Montanino, W.H. Henderson, F. Alessandrini, S. Passerini;  
**“Solvent-free lithium polymer batteries with PYR<sub>1A</sub>TFSI ionic liquids”**.  
212<sup>th</sup> Meeting of The Electrochemical Society, Washington (USA), October 7-12, 2007.
- 58) S. Passerini, M. Winter, G.B. Appetecchi;  
**“Long-term cycling of lithium-polymer electrolyte batteries containing ionic liquids”**.  
LLIBTA-08, Tampa (Florida), May 2008.
- 59) S. Passerini, G.B. Appetecchi;  
**“Polymer electrolytes containing ionic liquids for high-energy supercapacitors and batteries”**.  
EUPOC 2008, Gargnano (Italy), June 1-5, 2008.
- 60) G.B. Appetecchi, G.-T. Kim, M. Montanino, F. Alessandrini, S. Passerini;  
**“Ionic liquid-based ternary polymer electrolytes for all-solid-state lithium batteries”**  
1<sup>st</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2008), Rome (Italy), June 9-11, 2008.

- 61) G.B. Appetecchi, M. Montanino, W.A. Henderson, F. Alessandrini, S. Passerini;  
**"Low temperature highly conductive ionic liquid-based on bis(fluorosulfonyl)imide, FSI, anion".**  
*1<sup>st</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2008), Rome (Italy), June 9-11, 2008.*
- 62) M. Montanino, G.B. Appetecchi, M. Carewska, D. Zane, F. Alessandrini, S. Passerini;  
**"Effect of the alkyl chain length and structure on the physical-chemical properties of N-alkyl-N-methylpyrrolidinium and piperidinium bis(trifluoromethanesulfonyl) imide ionic liquids".**  
*1<sup>st</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2008), Rome (Italy), June 9-11, 2008.*
- 63) M. Furlani, I. Albinsson, B.-E. Mellander, G.B. Appetecchi, S. Passerini;  
**"Calorimetric and dielectric measurements on undercooled and annealed ionic liquids".**  
*1<sup>st</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2008), Rome (Italy), June 9-11, 2008.*
- 64) Q. Zhou, W.H. Henderson, G.B. Appetecchi, M. Montanino, S. Passerini;  
**"Phase behavior and electrochemical characteristics of PYR<sub>13</sub>FSI and PYR<sub>14</sub>FSI ionic liquids".**  
*214<sup>th</sup> Meeting of The Electrochemical Society, Honolulu (Hawaii), October 12-17, 2008.*
- 65) A. Balducci, G.B. Appetecchi, S. Lux, M. Schmuck, M. Winter, S. Passerini;  
**"Mixtures of ionic liquid in combination with graphite electrodes: the role of electrolyte additives and Li-salt".**  
*214<sup>th</sup> Meeting of The Electrochemical Society, Honolulu (Hawaii), October 12-17, 2008.*
- 66) E. Paillard, Q. Zhou, W. Henderson, G. Appetecchi, M. Montanino, S. Passerini;  
**"Electrochemical and physico-chemical properties of PYR<sub>14</sub>FSI-based electrolytes with LiFSI".**  
*214<sup>th</sup> Meeting of The Electrochemical Society, Honolulu (Hawaii), October 12-17, 2008.*
- 67) S. Lux, M. Schmuck, A. Balducci, B. Fuchsbichler, C. Stangl, H. Kren, S. Michael, C. God, B. Cornelia, S. Koller, G.B. Appetecchi, S. Passerini, M. Winter;  
**"Different room temperature ionic liquids and their mixtures as electrolytes for graphite negative electrodes in lithium ion batteries".**  
*214<sup>th</sup> Meeting of The Electrochemical Society, Honolulu (Hawaii), October 12-17, 2008.*
- 68) W.H. Henderson, E. Paillard, Q. Zhou, G. Appetecchi, M. Montanino, S. Passerini;  
**"Electrochemical and physicochemical properties of PY<sub>14</sub>FSI-based electrolytes with LiFSI".**  
*215<sup>th</sup> Meeting of The Electrochemical Society, San Francisco (USA), May 24-29, 2009.*
- 69) F. Castiglione, M. Moreno, S. Passerini, G.B. Appetecchi, A. Formulari, G. Raos, A. Mele;  
**"Fluorous domains formation in pyrrolidinium-based ionic liquids with different perfluoroalkylsulphonylimide anions".**  
*3<sup>rd</sup> Congress on Ionic Liquids, Cairns (Australia), May 31-June 4, 2009.*
- 70) G.-T. Kim, G.B. Appetecchi, M. Carewska, M. Joost, A. Balducci, M. Winter, S. Passerini;  
**"UV cross-linked ternary polymer electrolytes for lithium-ion batteries".**  
*4<sup>th</sup> International Conference on Polymer batteries and Fuel Cells, Yokohama (Japan), August 2-6, 2009.*
- 71) S. Passerini, G.B. Appetecchi, M. Winter;  
**"Ionic liquid-based electrolytes: a step further towards high-energy lithium batteries".**  
*60<sup>th</sup> Annual meeting of International Society of Electrochemistry, Beijing (China), August 16-21, 2009.*
- 72) M. Kunze, G.B. Appetecchi, S.S. Jeong, A. Balducci, M. Schoenhoff, M. Winter, S. Passerini;  
**"Ionic conductivity in ionic liquid-based electrolytes".**

17<sup>th</sup> Conference on Solid State Ionics, Toronto (Canada), June 28-July 3, 2009.

- 73) G.B. Appetecchi, M. Montanino, M. Carewska, F. Alessandrini, S. Passerini;  
**"LiFSI-PYR<sub>14</sub>FSI binary electrolyte mixtures for lithium batteries"**  
216<sup>th</sup> Meeting of The Electrochemical Society, Vienna (Austria), October 4-10, 2009.
- 74) G.-T. Kim, G.B. Appetecchi, S. Passerini, M. Joost, A. Balducci, M. Winter;  
**"Cross-linked, lithium-conducting ternary polymer electrolytes containing ionic liquids"**.  
216<sup>th</sup> Meeting of The Electrochemical Society, Vienna (Austria), October 4-10, 2009.
- 75) G.-T. Kim, G.B. Appetecchi, M. Montanino, S. Passerini;  
**"Long-term cyclability of lithium electrode in LiFSI-PYR<sub>14</sub>FSI electrolyte at room temperature"**.  
216<sup>th</sup> Meeting of The Electrochemical Society, Vienna (Austria), October 4-10, 2009.
- 76) G.B. Appetecchi, C. Bianchini, A. Curulli, S. Passerini, D. Zane;  
**"Pulse electrosynthesis of polypyrrole in N-methyl-N-butyl-pyrrolidinium (bistrifluoromethanesulfonyl)imide ionic liquids to assemble an interference-free glucose biosensor"**.  
216<sup>th</sup> Meeting of The Electrochemical Society, Vienna (Austria), October 4-10, 2009.
- 77) M. Kunze, G.B. Appetecchi, S.S. Jeong, A. Balducci, M. Schoenhoff, M. Winter, S. Passerini;  
**"Melting behavior and ionic conductivity in ionic liquid-based electrolytes for high energy electrochemical devices"**.  
216<sup>th</sup> Meeting of The Electrochemical Society, Vienna (Austria), October 4-10, 2009.
- 78) S. Passerini, G.B. Appetecchi, A. Lex-Balducci, A. Balducci, M. Winter;  
**"Ionic liquid-based electrolytes for safer lithium batteries"**.  
2<sup>nd</sup> German Symposium - Advanced Battery Development for Automotive and Utility Applications and Their Electric Power Grid Integration, Mainz (Germany), February 1-2, 2010.
- 79) M. Kunze, M. Montanino, G.B. Appetecchi, S. Jeong, M. Schoenhoff, M. Winter, S. Passerini;  
**"Ionic conduction and mobility in ionic liquids"**.  
EUCHEM 2010, Conference on Molten Salts and Ionic Liquids, Bamberg (Germany), March 14-19, 2010.
- 80) C. Bianchini, G.B. Appetecchi, A. Curulli, S. Passerini, D. Zane;  
**"Improved polypyrrole-based biosensors using EIS as electrochemical technique of detection"**.  
Biosensors 2010, Glasgow (UK), May 26-28, 2010.
- 81) M. Montanino, G.B. Appetecchi, M. Carewska, M. Moreno, F. Alessandrini, S. Passerini;  
**"Chemical-physical properties of bis(perfluoroalkylsulfonyl)imide anion-based ionic liquids with different cations"**.  
European Energy Conference, Barcelona (Spain), April 19-23, 2010.
- 82) G.B. Appetecchi, G.-T. Kim, M. Montanino, M. Carewska, F. Alessandrini, S. Passerini, R. Marcilla, D. Mecerreyes, I. De Meaza;  
**"Ternary polymer electrolytes containing pyrrolidinium-based polymeric ionic liquids for lithium batteries"**.  
2<sup>nd</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2010), Rome (Italy), June 9-11, 2010.
- 83) M. Montanino, G.B. Appetecchi, M. Carewska, F. Alessandrini, M. Moreno, S. Passerini;  
**"Chemical-physical investigation on N-alkyl-N-methyl(ethyl)piperidinium bis (trifluoromethanesulfonyl) imide ionic liquids as a function of the alkyl side chain length"**.  
2<sup>nd</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2010), Rome (Italy), June 9-11, 2010.

- 84) O. Russina, A. Triolo, S. Passerini, G. B. Appetecchi, M. Montanino, R. Caminiti;  
**“Phase diagram and structural properties of piperidinium based ionic liquids”**.  
*2<sup>nd</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2010), Rome (Italy), June 9-11, 2010.*
- 85) L. Gontrani, A.H.H. Padua, R. Caminiti, S. Passerini, G.B. Appetecchi, M. Montanino, A. Triolo;  
**“Anion conformational patterns and bulk properties in bis(perfluoroalkylsulfonyl) imide -based ionic liquids studied with X-ray diffraction and molecular dynamics simulations”**.  
*2<sup>nd</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2010), Rome (Italy), June 9-11, 2010.*
- 86) P. Johansson, L.-E. Fast, A. Matic, G.B. Appetecchi, S. Passerini;  
**“The conductivity of pyrrolidinium and sulfonylimide-based ionic liquids: a combined experimental and computational study”**.  
*2<sup>nd</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2010), Rome (Italy), June 9-11, 2010.*
- 87) G.B. Appetecchi, M. Montanino, M. Carewska, F. Alessandrini, S. Passerini;  
**“Ionic liquid mixtures for low temperature applications”**.  
*5<sup>th</sup> Forum on New Materials (CIMTEC 2010), Montecatini (Italy), June 13-18, 2010.*
- 88) G.B. Appetecchi, G.T. Kim, M. Montanino, M. Carewska, F. Alessandrini, S. Passerini;  
**“Room temperature lithium polymer batteries based on ionic liquids”**.  
*15<sup>th</sup> International Meeting on Lithium Batteries, Montreal (Canada), June 27-July 2, 2010.*
- 89) S. Passerini, M. Kunze, G.-T. Kim, S.S. Jeong, G.B. Appetecchi, M. Winter;  
**“Ionic liquid-based electrolytes for lithium batteries”**.  
*International Society of Electrochemistry Meeting (ISE 2010), Nice (France), September 26-October 1, 2010.*
- 90) S. Passerini, G.B. Appetecchi;  
**“Binary and ternary ionic liquid electrolytes”**.  
*International Symposium on Polymer Electrolytes (ISPE-12), Padova (Italy), August 30- September 3, 2010.*
- 91) F. Castiglione, E. Ragg, A. Mele, G.B. Appetecchi, M. Montanino, S. Passerini;  
**“Transport properties and structural features of ionic liquid N-butyl-N-methyl-pyrrolidinium bis(trifluoromethanesulfonyl)imide (PYR<sub>14</sub>TFSI) containing LiTFSI”**.  
*International Symposium on Polymer Electrolytes (ISPE-12), Padova (Italy), August 30-September 3, 2010.*
- 92) M. Furlani, I. Albinsson, B.-E. Mellander, G.B. Appetecchi, S. Passerini;  
**“Thermal properties of ionic liquids”**.  
*International Symposium on Polymer Electrolytes (ISPE-12), Padova (Italy), August 30-September 3, 2010.*
- 93) M. Kunze, G.-T. Kim, S.S. Jeong, G.B. Appetecchi, M. Schonoff, M. Winter, S. Passerini;  
**“Ionic liquids and ionic liquid binary mixtures as electrolytes for lithium batteries”**.  
*218<sup>th</sup> Meeting of The Electrochemical Society, Las Vegas (Nevada), October 10-15, 2010.*
- 94) M. Joost, M. Kunze, R. Schmitz, G.B. Appetecchi, S. Passerini, M. Winter;  
**“Li<sup>+</sup> environment and mobility in PEO-based, ternary solid polymer electrolytes containing ionic liquids”**.  
*218<sup>th</sup> Meeting of The Electrochemical Society, Las Vegas (Nevada), October 10-15, 2010.*
- 95) M. Destro, J.R. Nair, C. Gerbaldi, G.B. Appetecchi, M. Montanino, S. Bodoardo, R. Bongiovanni, N. Penazzi;  
**“UV-curing process for 3D Li-ion polymer cells”**.  
*LIBD – Electrode Materials, Arcachon (France), June 12-17, 2011.*

- 96) F. Castiglione, E. Ragg, A. Mele, G.B. Appetecchi, M. Montanino, S. Passerini;  
**“Ion-ion interactions and diffusion properties of ionic liquids: PYR<sub>14</sub>BETI and PYR<sub>14</sub>IM<sub>14</sub>”**.  
*4<sup>th</sup> Congress on Ionic Liquids (COIL-4), Washington (USA), June 15-18, 2011*
- 97) A. Mele, F. Castiglione, E. Ragg, G.B. Appetecchi, M. Montanino, S. Passerini;  
**“Molecular environment and transport properties of pyrrolidinium-based ionic liquid doped with lithium salts by heteronuclear NOE and diffusion NMR spectroscopy”**.  
*Faraday Discussion 154: Ionic Liquids, Belfast (UK), August 22-24, 2011.*
- 98) G.-T. Kim, S.S. Jeong, M.-Z. Xue, A. Balducci, M. Winter, S. Passerini, F. Alessandrini, M. Montanino, G.B. Appetecchi;  
**“Development of ionic liquid-based (1 Ah) lithium battery prototypes”**.  
*220<sup>th</sup> Meeting of The Electrochemical Society, Boston (Illinois), October 9-14, 2011.*
- 99) M. Moreno, M. Montanino, M. Carewska, S. Jeremias, S. Passerini, F. Alessandrini, G.B. Appetecchi;  
**“Water-soluble, triflate-based, pyrrolidinium ionic liquids: I. Synthesis, thermal characterization and transport properties”**.  
*3<sup>rd</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2012), Rome (Italy), May 30 – June 1, 2012.*
- 100) M. Montanino, M. Moreno, M. Carewska, S. Jeremias, S. Passerini, F. Alessandrini, G.B. Appetecchi;  
**“Water-soluble, triflate-based, pyrrolidinium ionic liquids: II. Influence of the oxygen introduction into the cation alkyl side chain.**  
*3<sup>rd</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2012), Rome (Italy), May 30 – June 1, 2012.*
- 101) M. Montanino, M. Moreno, Q. Zhou, W.A. Henderson, S. Passerini, F. Alessandrini, G.B. Appetecchi;  
**“(1-x)PYR<sub>14</sub>TFSI-(x)PYR<sub>14</sub>IM<sub>14</sub> ionic liquid mixtures as electrolyte components for low temperature lithium batteries”**.  
*16<sup>th</sup> International Meeting on Lithium Batteries, Jeju Island (Korea), June 17-22, 2012.*
- 102) G.T. Kim, G.B. Appetecchi, M. Winter, S. Passerini;  
**“High temperature electrochemical properties of lithium polymer batteries with PEO-LiTFSI-PYR<sub>14</sub>TFSI”**.  
*16<sup>th</sup> International Meeting on Lithium Batteries, Jeju Island (Korea), June 17-22, 2012.*
- 103) M. Furlani, I. Albinsson, B.-E. Mellander, G.B. Appetecchi, S. Passerini;  
**“Ionic liquid dielectric and calorimetric study on the ionic liquid PYR<sub>14</sub> TFSI and FSI after different thermal processes”**.  
*XIII International Symposium on Polymer Electrolytes (ISPE-13), Selfoss (Iceland), August 26 – 3, 2012.*
- 104) O. Russina, F. Lo Celso, M. Di Michiel, S. Passerini, G.B. Appetecchi, F. Castiglione, A. Mele, R. Caminiti, A. Triolo;  
**“Room temperature ionic liquids with fluorinated tails: evidences of triphilic behaviour and structural implications”**.  
*5<sup>th</sup> Congress on Ionic Liquids (COIL-5), Alvarge (Portugal), April 21-25, 2013.*
- 105) O. Miguel, I. Cendoya, G.-T. Kim, N. Löffler, N. Laszczynski, S. Passerini, P.M. Schweizer, F. Castiglione, A. Mele, G.B. Appetecchi, M. Moreno, M. Brandon, T. Kennedy, E. Mullane, K.M. Ryan, M. Olive, I. de Meatza;  
**“GREENLION project: advanced manufacturing processes for low cost greener li-ion batteries”**.  
*Joint European Commission / European Green Cars Initiative PPP Workshop 2013 Electric Vehicle Batteries: Moving from Research towards Innovation. Fondation Universitaire, Rue d'Egmont 11, 1000 Brussels, 10 April 2013.*
- 106) G. Frucci, M. Moreno, U. Besi Vetrella, V. Corato, A. Pozio, G.B. Appetecchi, G. De Marzi;  
**“Fabrication and physical characterization of electrochemically deposited FeSe”**.



11<sup>th</sup> European Conference on Applied Superconductivity, EUCAS 2013, Genova (Italy), September 15-19, 2013.

- 107) A. Moretti, G. Giffin J. Serra Moreno, S. Panero, G.B. Appetecchi, S. Passerini;  
**“Ionic conductivity: a useful probe for ionic liquid characterization”**.  
*Analytical Tools for Fuel Cells and Batteries, Wilhelm and Else Heraeus Seminar 2014, 2014, Bad Honnef (Germany), March 23 - 26, 2014.*
- 108) M. Moreno, M. Carewska, M. Montanino, G. Maresca, E. Simonetti, R. Lo Presti, F. Alessandrini, G.B. Appetecchi;  
**“Ionic liquid mixtures as components for lithium battery electrolytes”**.  
*4<sup>th</sup> International Conference on Ionic Liquids for Electrochemical Devices (ILED 2014), Rome (Italy), May 28 - 30, 2014.*
- 109) Y. Deguchi, J. Serra Moreno, S. Panero, B. Scrosati, H. Ohno, G.B. Appetecchi;  
**“Innovative ionic liquid electrolytes, based on the FSI Anion, for highly safe lithium batteries”**.  
*17<sup>th</sup> International Meeting on Lithium Batteries, June 10-14, 2014, Como (Italy).*
- 110) J. Serra Moreno, S. Jeremias, A. Moretti, S. Panero, S. Passerini, B. Scrosati, G.B. Appetecchi;  
**“Can the cation alkyl side chain length affect the thermal and transport properties of pyrrolidinium-TFSI ionic liquid mixtures?”**  
*17<sup>th</sup> International Meeting on Lithium Batteries, June 10-14, 2014, Como (Italy).*
- 111) K. Kimura, J. Serra Moreno, G.B. Appetecchi, S. Panero, Y. Tominaga;  
**“Electrochemical properties of novel poly(ethylene carbonate)-based electrolytes including ionic liquids for lithium rechargeable batteries”**.  
*17<sup>th</sup> International Meeting on Lithium Batteries, June 10-14, 2014, Como (Italy).*
- 112) M. Montanino, M. Moreno, M. Carewska, F. Alessandrini, G.B. Appetecchi;  
**“Safer lithium battery electrolyte systems based on organic solvent-ionic liquid mixtures”**.  
*17<sup>th</sup> International Meeting on Lithium Batteries, June 10-14, 2014, Como (Italy).*
- 113) R.E. Sousa, J. Nunes-Pereira, C.M. Costa, M.M. Silva, S. Lanceros-Méndez, J. Hassoun, B. Scrosati, G.B. Appetecchi;  
**“Influence of the degree of porosity of poly(vinylidene fluoride-co-hexafluoropropylene) separator membranes in the performance of Li-ion batteries”**.  
*XIX Meeting of the Portuguese Electrochemical Society, XVI Iberic Meeting of Electrochemistry, Aveiro (Portugal), June 30 – July 2, 2014.*
- 114) G. Maresca, E. Simonetti, M. Moreno, G.B. Appetecchi, G.-T. Kim, N. Löffler, S. Passerini;  
**“Ionic liquid-based electrolyte systems for safer lithium batteries”**.  
*International Workshop 2014, “On the green road to environmentally friendly lithium-ion cells”, Helmholtz Institute Ulm (HIU), Ulm (Germany), October 28-29, 2014.*
- 115) A. Mele, F. Castiglione, A. Famulari, S.V. Meille, G.B. Appetecchi, S. Passerini;  
**“Blending ionic liquids: anomalous diffusion of TFSI and FSI anions in the pure pyrrolidinium-based ILs and their blends”**.  
*3<sup>rd</sup> International symposium of Green Chemistry, La Rochelle (France), May 3-7, 2015.*
- 116) A. Triolo, G.B. Appetecchi, R. Caminiti, O. Russina;  
**“Structural and dynamic exploration of triphilic room temperature ionic liquids”**.  
*Joint EMLG/JMLG Annual Meeting, “Molecular Liquids Meet Ionic Liquids: from Fundamentals to Applications”, Rostock (Germany), September 6-10, 2015.*
- 117) R. Nair Jijeesh, L. Porcarelli, F. Bella, R. Lin, S. Fantini, M. Moreno, G.B. Appetecchi, C. Gerbaldi;

- “New insights in aging resistant lithium polymer batteries for highly stressful applications”.**  
*GEI 2015 - Giornate dell'Elettrochimica Italiana, 20-24 Settembre 2015, Bertinoro (FC).*
- 118) G.-T. Kim, N. Löffler, S. Passerini, M. Brandon, T. Kennedy, K.M. Ryan, G. Maresca, E. Simonetti, M. Moreno, G.B. Appetecchi;  
**“Battery performance of ionic liquid-based electrolyte systems with innovative electrodes”.**  
*GREENLION Closing Workshop , “Advanced manufacturing processes for Low Cost Greener Li-Ion Batteries”, CIDETEC, San Sebastian, Spain, October 29, 2015.*
- 119) F. Castiglione, A. Mele, G.B. Appetecchi, S. Passerini, G. Raos, A. Famulari, S.V. Meille;  
**“Ionic liquids for lithium batteries: a nuclear magnetic resonance investigation”.**  
*GREENLION Closing Workshop , “Advanced manufacturing processes for Low Cost Greener Li-Ion Batteries”, CIDETEC, San Sebastian, Spain, October 29, 2015.*
- 120) J.R. Nair, L. Porcarelli, F. Bella, R. Lin, S. Fantini, G. Maresca, M. Moreno, G.B. Appetecchi, C. Gerbaldi;  
**“New insights towards ageing resistant lithium polymer batteries for wide temperature applications”.**  
*ENERCHEM-1, 1<sup>st</sup> Enerchem Congress, Florence, Italy, February 18-20, 2016.*
- 121) M.A. Navarra, L. Lombardo, A. D'Annibale, G.B. Appetecchi, S. Panero;  
**“Novel ether- or sulfur-functionalized ionic liquids as electrolyte components in advanced lithium batteries”.**  
*229<sup>th</sup> Meeting of The Electrochemical Society, S. Diego (USA), May 29 – June 3, 2016.*
- 122) E. Simonetti, G. Maresca, M. Carewska, M. Moreno, M. De Francesco, G.B. Appetecchi;  
**“Highly conductive, ionic liquid-rich polymer electrolytes”.**  
*International Meeting of Lithium Batteries (IMLB 2016), Chicago (USA), June 19-24, 2016.*
- 123) M. Moreno, M. Montanino, M. Carewska, E. Simonetti, G.-T. Kim, N. Loeffler, S. Passerini, M. De Francesco, G.B. Appetecchi;  
**“Ionic liquid electrolytes for safer lithium batteries: I. Investigation around optimal formulation”.**  
*International Meeting of Lithium Batteries (IMLB 2016), Chicago (USA), June 19-24, 2016.*
- 124) E. Simonetti, G. Maresca, G.-T. Kim, N. Loeffler, S. Passerini, G.B. Appetecchi;  
**“Ionic liquid electrolytes for safer lithium batteries: “II. Performance in NMC and graphite electrodes”.**  
*International Meeting of Lithium Batteries (IMLB 2016), Chicago (USA), June 19-24, 2016.*
- 125) N. Loeffler, G.-T. Kim, S. Passerini, C. Gutierrez, I. Cendoya, I. De Meatza; F. Alessandrini, G.B. Appetecchi;  
**“Superior performance and ageing robustness of 17 A h class, graphite/NMC stacked cells manufactured through eco-friendly materials and processes”.**  
*International Meeting of Lithium Batteries (IMLB 2016), Chicago (USA), June 19-24, 2016.*
- 126) A. Mele, F. Castiglione, E. Ragg, G.B. Appetecchi, H. de Vries, S. Passerini;  
**“NMR microimaging investigation of IL-PEO mixtures: the morphology of dynamics”.**  
*26<sup>th</sup> EUICHEM on Molten Salts and Ionic Liquids, Wien (Austria), July 3-8, 2016.*
- 127) G.-T. Kim, S. Passerini; T. Kennedy, M. Brandon, K.M. Ryan; G.B. Appetecchi;  
**“Enhanced battery performance of germanium and silicon anodes in ionic liquid electrolytes”.**  
*International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2016), Rome (Italy), July 11-13, 2016.*
- 128) O. Palumbo, F. Trequattrini, M. A. Navarra, S. Panero, G.B. Appetecchi, P. Roy, J.-B. Brubach, A. Paolone;  
**“Tailoring the physical properties of the mixtures of ionic liquids: a microscopic point of view”.**  
*International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2016), Rome (Italy), July 11-13, 2016.*
- 129) M.A. Navarra, A. Tsurumaki, G.B. Appetecchi, S. Panero, B. Scrosati;

- “Novel ionic liquids with ether or sulfur functionalization as electrolyte components in lithium-ion batteries”**.  
*International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2016), Rome (Italy), July 11-13, 2016.*
- 130) G.B. Appetecchi, A. D’Annibale, G. Maresca, M.A. Navarra, S. Panero;  
**“Novel ionic liquids functionalized with sulfur atom”**.  
*International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2016), Rome (Italy), July 11-13, 2016.*
- 131) C. Gerbaldi, J.R. Nair, L. Porcarelli, F. Bella, R. Lin, S. Fantoni, G. Maresca, M. Moreno, G.B. Appetecchi;  
**“New insights towards aging resistant Li-ion polymer batteries for wide temperature applications”**.  
*International Symposium on Polymer Electrolytes (ISPE-XV), Uppsala (Sweden), August 15-19, 2016.*
- 132) E. Simonetti, M. Carewska, M. Di Carli, M. Moreno, G.B. Appetecchi;  
**“Towards improvement of electrochemical properties of ionic liquid-containing polymer electrolytes”**.  
*EMRS (European Materials Research Society) Fall Meeting 2016 (Symposium N: Materials for Electrochemical Storage Systems for the Electric Vehicles), Warsaw (Poland), September 19-23, 2016.*
- 133) E. Simonetti, M. Carewska, M. Di Carli, M. Moreno, M. De Francesco, F. Alessandrini, G.B. Appetecchi;  
**“Improved performance of ionic liquid-based PEO electrolytes”**.  
*MARS-EV Workshop “On the cutting edge of high energy materials for Lithium ion batteries”, Rome (Italy), April 3, 2017.*
- 134) G.B. Appetecchi;  
**“Development of innovative electrolyte materials/components for advanced electrochemical energy storage devices”**.  
*“NanoSimposio 2017 - Nanotecnologie e Scienze delle Superfici relative ai Sistemi di Accumulo per la Mobilità” San Benedetto del Tronto (Italy), May 18-20, 2017.*
- 135) M. Keller, G.-T. Kim, G.B. Appetecchi, S. Passerini;  
**“Composite electrolytes for all-solid-state batteries”**.  
*231<sup>th</sup> Meeting of The Electrochemical Society, New Orleans (USA), May 28 – June 2, 2017.*
- 136) F. Castiglione, E. Ragg, G.B. Appetecchi, H de Vries, S. Passerini, A. Mele;  
**“Anisotropic diffusion of pyrrolidinium cations in Pyr<sub>14</sub>TFSI-PEO-LiTFSI ternary systems: <sup>1</sup>H microimaging NMR study”**.  
*7<sup>th</sup> International Congress on Ionic Liquids (COIL 7), Mont Tremblant, Quebec (Canada), June 25-30, 2017.*
- 137) J.R. Nair, L. Porcarelli, M. Falco, F. Bella, F. Colò, G. Meligrana, R. Lin, G.B. Appetecchi, S. Passerini, C. Gerbaldi;  
**“Towards Aging Resistant Lithium Polymer Batteries for Safe Wide Temperature Applications”**.  
*21<sup>th</sup> International Conference on Solid State Ionics (SSI 2017), Padua (Italy), June 18-23, 2017.*
- 138) M. Falco, J.R. Nair, R. Lin, G.B. Appetecchi, F. Colò, G. Meligrana, S. Passerini, F. Bella, C. Gerbaldi;  
**“Safe and Highly Conducting Polymer Electrolytes for Ageing Resistant Li-ion Energy Storage”**.  
*68<sup>th</sup> Annual ISE Meeting (ISE 2017), Providence, RI (USA), August 27 – September 1, 2017.*
- 139) G.B. Appetecchi, M. Bellusci, F. Varsano, E. Simonetti;  
**“Large-capacity ZnFe<sub>2</sub>O<sub>4</sub> anode material synthesized by solvent-free, high-energy ball milling”**.  
*69<sup>th</sup> Annual ISE Meeting (ISE 2018), Bologna (Italy), September 2-7, 2018*
- 140) E. Simonetti, M. De Francesco, R. Lo Presti, G.B. Appetecchi;  
**“One-pot synthesis route for hydrophobic ionic liquids”**.  
*6<sup>th</sup> International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2018), Rome (Italy), Sept. 9-11, 2018.*

- 141) G. D'Orsi, E. Simonetti, M. De Francesco, S. Panero, G.B. Appetecchi;  
**“Quaternary phosphonium-based, hydrophobic ionic liquids”**.  
*6<sup>th</sup> International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2018), Rome (Italy), Sept. 9-11, 2018.*
- 142) S. Brutti, M.A. Navarra, G. Maresca, S. Panero, J. Manzi, E. Simonetti, G.B. Appetecchi;  
**“Ionic liquid electrolytes for room temperature sodium battery systems”**.  
*6<sup>th</sup> International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2018), Rome (Italy), Sept. 9-11, 2018.*
- 143) F. Castiglione, E. Ragg, M. Casalegno, G. Raos, G.B. Appetecchi, H. de Vries, S. Passerini, A. Mele;  
**“Dynamics in ternary polymer-electrolyte-ionic liquid systems: a NMR  $\mu$ -imaging-molecular dynamics study”**.  
*6<sup>th</sup> International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2018), Rome (Italy), Sept. 9-11, 2018.*
- 144) O. Russina, F. Lo Celso, G.B. Appetecchi, A. Triolo;  
**“Nanoscale organization in bis(perfluoroalkylsulfonyl)imide-based ionic liquids”**.  
*6<sup>th</sup> International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2018), Rome (Italy), Sept. 9-11, 2018.*
- 145) M. Alidoost, G.B. Appetecchi, S. Bodoardo;  
**“Ionic liquids as electrolyte additives for lithium-sulfur batteries”**.  
*6<sup>th</sup> International Meeting on Ionic Liquids for Electrochemical Devices (ILED 2018), Rome (Italy), Sept. 9-11, 2018.*
- 146) F. Castiglione, M. Casalegno, G. Raos, G.B. Appetecchi, H. deVries, S. Passerini, A. Mele;  
**“Anisotropic diffusion of pyrrolidinium cations in PYR<sub>4</sub>TFSI-PEO-LiTFSI ternary systems: insights from <sup>1</sup>H microimaging NMR and molecular dynamics”**.  
*27<sup>th</sup> Conference on Molten Salts and Ionic Liquids (EuCheMSIL 2018), Lisbon (Portugal), October 7-12, 2018.*
- 147) E. Simonetti, M. De Francesco, A. Paolone, O. Palumbo, S. Fantini, R. Lin, A. Falgayrat, G.B. Appetecchi;  
**“Ammonium- and Imidazolium-based ionic liquids as safer electrolyte components for lithium battery systems”**.  
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- 148) M. Bellusci, E. Simonetti, M. De Francesco, G.B. Appetecchi;  
**“Ionic liquid electrolytes for sodium battery systems”**.  
*Nanoinnovation2020, La Sapienza University of Rome, Rome, September 15-18, 2020.*
- 149) A. Paolone, O. Palumbo, A. Sarra, A. Cimini, F. Trequattrini, S. Brutti, E. Simonetti, M. De Francesco, G.B. Appetecchi, S. Fantini, R. Lin, A. Falgayrat;  
**“Physico-chemical properties of innovative ionic liquids for electrochemical applications”**.  
*Nanoinnovation2020, La Sapienza University of Rome, Rome, September 15-18, 2020.*
- 150) G.B. Appetecchi, E. Simonetti, M. De Francesco; S. Brutti, A. Sarra, A. Paolone, O. Palumbo; S. Fantini, R. Lin, A. Falgayrat; H. Choi, M. Kuenzel, S. Passerini, H. Geaney, K.M. Ryan;  
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## Patents

- 1) M. Carewska, G.B. Appetecchi, S. Passerini;  
**“Materiali inorganici monolitici e porosi con morfologia bicontinua”**.  
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- 2) S. Passerini, F. Alessandrini, G.B. Appetecchi, B. Boutevin, G. Caporiccio;  
**“Procedimento per la sintesi di polimerico reticolati e loro impiego in dispositivi elettrochimici”**.  
Italian Patent RM 2003A000303, Italy, June 19, 2003.
- 3) G.B. Appetecchi, E. Simonetti, M. De Francesco, M. Bellusci, F. Varsano, G. D’Orsi,  
S. Passerini, G.-T. Kim, F. Wu, A. Mariani;  
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