



## Elenco dei titoli e delle pubblicazioni scientifiche

**Piercarlo MUSTARELLI**  
**Settore Concorsuale domanda: 03/A2 -**  
**MODELLI E METODOLOGIE PER LE**  
**SCIENZE CHIMICHE**  
**Prima Fascia**

<b>Posizione accademica</b>
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Settore Scientifico Disciplinare:	CHIM/02 - Chimica fisica
Qualifica:	Professore Associato
Anzianità nel ruolo:	01/03/2001
Sede Universitaria:	Università degli Studi di PAVIA
Struttura di afferenza (dipartimento o altro):	CHIMICA

Posizioni ricoperte precedentemente nel medesimo ateneo o in altri

Periodo	Fascia	Ateneo
01/07/1998	Ricercatore Universitario	Università degli Studi di PAVIA
01/03/2001	Professore II Fascia	Università degli Studi di PAVIA

8	2014	Articolo in rivista Gerbaldi C, Nair Jr, Kulandainathan Ma, Kumar Rs, Ferrara C, Mustarelli P, Stephan Am (2014). Innovative high performing metal organic framework (MOF)-laden nanocomposite polymer electrolytes for all-solid-state lithium batteries. JOURNAL OF MATERIALS CHEMISTRY. A, vol. 2, ISSN: 2050-7488, doi: 10.1039/c4ta01856g
9	2013	Articolo in rivista Marcella Bini, Stefania Ferrari, Chiara Ferrara, Maria Cristina Mozzati, Doretta Capsoni, Andrew J. Pell, Guido Pintacuda, Patrizia Canton, Piercarlo Mustarelli (2013). Polymorphism and magnetic properties of Li <sub>2</sub> MSiO <sub>4</sub> (M = Fe, Mn) cathode material. SCIENTIFIC REPORTS, vol. 3:3452, p. 1-7, ISSN: 2045-2322, doi: 10.1038/srep03452
10	2012	Articolo in rivista E. Quartarone, P. Mustarelli (2012). Polymer fuel cells based on polybenzimidazole/H <sub>3</sub> PO <sub>4</sub> . ENERGY & ENVIRONMENTAL SCIENCE, vol. 5, p. 6436-6444, ISSN: 1754-5692
11	2012	Articolo in rivista Shruti S., Salinas A.J., Malavasi G., Lusvardi G., Menabue L., Ferrara C., Mustarelli P., Vallet-Regi M. (2012). Structural and in vitro study of cerium, gallium and zinc containing sol-gel bioactive glasses. JOURNAL OF MATERIALS CHEMISTRY, vol. 22, p. 13698-13706, ISSN: 0959-9428
12	2011	Articolo in rivista Quartarone E, Mustarelli P (2011). Electrolytes for solid-state lithium rechargeable batteries: recent advances and perspectives. CHEMICAL SOCIETY REVIEWS, vol. 40, ISSN: 0306-0012
13	2010	Articolo in rivista Ferrari S., Lavall R.L., Capsoni D., Quartarone E., Magistris A., Mustarelli P., Canton P. (2010). Influence of particle size and crystal orientation on the electrochemical behavior of carbon-coated LiFePO <sub>4</sub> . JOURNAL OF PHYSICAL CHEMISTRY. C., vol. 114, p. 12598-12603, ISSN: 1932-7455
14	2010	Articolo in rivista Ferrari S, Lavall RL, Capsoni D, Quartarone E, Magistris A, Mustarelli P, Canton P. (2010). Influence of Particle Size and Crystal Orientation on the Electrochemical Behavior of Carbon-Coated LiFePO <sub>4</sub> . JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 114, ISSN: 1932-7447
15	2009	Articolo in rivista Fagnoni Maurizio, Profumo Antonella, Merli Daniele, Dondi Daniele, Mustarelli Piercarlo, Quartarone Eliana (2009). Water miscible liquid multiwalled carbon nanotubes. ADVANCED MATERIALS, vol. 21, p. 1761-1765, ISSN: 0935-9648, doi: 10.1002/adma.200801994

## Pubblicazioni scientifiche ai fini degli indicatori

1	2016	<p>Articolo in rivista</p> <p>Invernizzi F., Dulio S., Patrini M., Guizzetti G., Mustarelli P (2016). Energy harvesting from human motion: Materials and techniques. CHEMICAL SOCIETY REVIEWS, vol. 45, p. 5455-5473, ISSN: 0306-0012, doi: 10.1039/c5cs00812c</p>
2	2016	<p>Articolo in rivista</p> <p>Cattaneo A.S., Ferrara C., Villa D.C., Angioni S., Milanese C., Capsoni D., Grandi S., Mustarelli P., Allodi V., Mariotto G., Brutti S., Quartarone E. (2016). SBA-15 mesoporous silica highly functionalized with propylsulfonic pendants: A thorough physico-chemical characterization. MICROPOROUS AND MESOPOROUS MATERIALS, vol. 219, p. 219-229, ISSN: 1387-1811, doi: 10.1016/j.micromeso.2015.08.011</p>
3	2016	<p>Articolo in rivista</p> <p>Tealdi Cristina, Ricci Monica, Ferrara Chiara, Bruni Giovanna, Berbenni Vittorio, Quartarone Eliana, Mustarelli Piercarlo (2016). Glucose-assisted synthesis and wet-chemistry preparation of pyrophosphate cathodes for rechargeable Na-ion batteries. RSC ADVANCES, vol. 6, p. 99735-99742, ISSN: 2046-2069, doi: 10.1039/C6RA21919E</p>
4	2016	<p>Articolo in rivista</p> <p>Cattaneo Alice S., Ferrara Chiara, Marculescu Adriana Mossuto, Giannici Francesco, Martorana Antonino, Mustarelli Piercarlo, Tealdi Cristina (2016). Solid-state NMR characterization of the structure and thermal stability of hybrid organic-inorganic compounds based on a HLaNb<sub>2</sub>O<sub>7</sub>Dion-Jacobson layered perovskite. PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol. 18, p. 21903-21912, ISSN: 1463-9076, doi: 10.1039/C6CP02943D</p>
5	2016	<p>Articolo in rivista</p> <p>Quartarone Eliana, Dall'Asta Valentina, Resmini Alessandro, Tealdi Cristina, Tredici Ilenia Giuseppina, Anselmi Tamburini Umberto, Mustarelli Piercarlo (2016). Graphite-coated ZnO nanosheets as high-capacity, highly stable, and binder-free anodes for lithium-ion batteries. JOURNAL OF POWER SOURCES, vol. 320, p. 314-321, ISSN: 0378-7753, doi: 10.1016/j.jpowsour.2016.04.107</p>

13	2015	Articolo in rivista Angioni S., Villa D.C., Cattaneo A.S., Mustarelli P., Quartarone E. (2015). Influence of variously functionalized SBA-15 fillers on conductivity and electrochemical properties of PBI composite membranes for high temperature polymer fuel cells. JOURNAL OF POWER SOURCES, vol. 294, p. 347-353, ISSN: 0378-7753, doi: 10.1016/j.jpowsour.2015.06.096
14	2015	Articolo in rivista Coccini T., Barni S., Mustarelli P., Locatelli C., Roda E. (2015). One-month persistence of inflammation and alteration of fibrotic marker and cytoskeletal proteins in rat kidney after Cd-doped silica nanoparticle instillation. TOXICOLOGY LETTERS, vol. 232, p. 449-457, ISSN: 0378-4274, doi: 10.1016/j.toxlet.2014.11.021
15	2015	Articolo in rivista Nicotera I., Kosma V., Simari C., Angioni S., Mustarelli P., Quartarone E. (2015). Ion dynamics and mechanical properties of sulfonated polybenzimidazole membranes for high-temperature proton exchange membrane fuel cells. JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 119, p. 9745-9753, ISSN: 1932-7447, doi: 10.1021/acs.jpcc.5b01067
16	2015	Articolo in rivista Djangang C.N., Tealdi C., Cattaneo A.S., Mustarelli P., Kamseu E., Leonelli C. (2015). Cold-setting refractory composites from cordierite and mullite-cordierite design with geopolymer paste as binder: Thermal behavior and phase evolution. MATERIALS CHEMISTRY AND PHYSICS, vol. 154, p. 66-77, ISSN: 0254-0584, doi: 10.1016/j.matchemphys.2015.01.046
17	2015	Articolo in rivista Catauro M, Bollino F, Papale F, Mozzati Mc, Ferrara C, Mustarelli P (2015). ZrO <sub>2</sub> /PEG hybrid nanocomposites synthesized via sol-gel: Characterization and evaluation of the magnetic properties. JOURNAL OF NON-CRYSTALLINE SOLIDS, vol. 413, p. 1-7, ISSN: 0022-3093, doi: 10.1016/j.jnoncrysol.2015.01.014
18	2015	Articolo in rivista Tealdi C, Quartarone E, Mustarelli P, Malavasi L. (2015). Nanoscale stabilization of the scheelite-type structure in La <sub>0.99</sub> Ca <sub>0.01</sub> NbO <sub>4</sub> thin films. NANOSCALE, vol. 7, p. 2221-2224, ISSN: 2040-3364, doi: 10.1039/C4NR05647G
19	2015	Articolo in rivista Cattaneo A.S., Villa D.C., Angioni S., Ferrara C., Melzi R., Quartarone E., Mustarelli P. (2015). Operando electrochemical NMR microscopy of polymer fuel cells. ENERGY & ENVIRONMENTAL SCIENCE, vol. 8, p. 2383-2388, ISSN: 1754-5692, doi: 10.1039/c5ee01668a

27	2014	Articolo in rivista Ilenia G. Tredici, Filippo Maglia, Chiara Ferrara, Piercarlo Mustarelli, Umberto Anselmi-Tamburini. (2014). Mechanism of Low-Temperature Protonic Conductivity in Bulk, High Density, Nanometric Titanium Oxide. <i>ADVANCED FUNCTIONAL MATERIALS</i> , vol. 24, p. 5137-5146, ISSN: 1616-301X, doi: 10.1002/adfm.201400420
28	2014	Articolo in rivista Achilli C., Grandi S., Ciana A., Guidetti G.F., Malara A., Abbonante V., Cansolino L., Tomasi C., Balduini A., Fagnoni M., Merli D., Mustarelli P., Canobbio I., Balduini C., Minetti G. (2014). Biocompatibility of functionalized boron phosphate (BPO <sub>4</sub> ) nanoparticles for boron neutron capture therapy (BNCT) application. <i>NANOMEDICINE</i> , vol. 10, p. 589-597, ISSN: 1549-9634, doi: 10.1016/j.nano.2013.10.003
29	2014	Articolo in rivista Tealdi C., Mustarelli P. (2014). Improving Oxygen Transport in Perovskite-Type LaGaO <sub>3</sub> Solid Electrolyte through Strain. <i>JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES</i> , vol. 118, p. 29574-29582, ISSN: 1932-7447, doi: 10.1021/jp509413w
30	2014	Articolo in rivista Villa D.C, Angioni S, Barco S.D, Mustarelli P, Quartarone E (2014). Polysulfonated Fluoro-oxypBI Membranes for PEMFCs: An Efficient Strategy to Achieve Good Fuel Cell Performances with Low H <sub>3</sub> PO <sub>4</sub> Doping Levels. <i>ADVANCED ENERGY MATERIALS</i> , vol. 4, p. n/a, ISSN: 1614-6832, doi: 10.1002/aenm.201301949
31	2014	Articolo in rivista Gerbaldi C, Nair Jr, Kulandainathan Ma, Kumar Rs, Ferrara C, Mustarelli P, Stephan Am (2014). Innovative high performing metal organic framework (MOF)-laden nanocomposite polymer electrolytes for all-solid-state lithium batteries. <i>JOURNAL OF MATERIALS CHEMISTRY. A</i> , vol. 2, ISSN: 2050-7488, doi: 10.1039/c4ta01856g
32	2014	Articolo in rivista Ferrara C., Tealdi C., Mustarelli P., Hoelzel M., Pell A.J., Pintacuda G. (2014). Melilite LaSrGa <sub>3-x</sub> Al <sub>x</sub> O <sub>7</sub> Series: A Combined Solid-State NMR and Neutron Diffraction Study. <i>JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES</i> , vol. 118, p. 15036-15043, ISSN: 1932-7447, doi: 10.1021/jp504829x
33	2014	Articolo in rivista Mandanici A., Raimondo A., Federico M., Cutroni M., Mustarelli P., Armellini C., Rocca F. (2014). Ionic conductivity, electric modulus and mechanical relaxations in silver iodide-silver molybdate glasses. <i>JOURNAL OF NON-CRYSTALLINE SOLIDS</i> , vol. 401, p. 254-257, ISSN: 0022-3093, doi: 10.1016/j.jnoncrsol.2013.12.025

42	2013	Articolo in rivista Bini M, Ferrari S, Capsoni D, Spreafico C, Tealdi C, Mustarelli P (2013). Insight into cation disorder of $\text{Li}_2\text{Fe}_{0.5}\text{Mn}_{0.5}\text{SiO}_4$ . JOURNAL OF SOLID STATE CHEMISTRY, vol. 200, p. 70-75, ISSN: 0022-4596, doi: 10.1016/j.jssc.2013.01.019
43	2013	Articolo in rivista Quinzeni I., Ferrari S., Quartarone E., Tomasi C., Fagnoni M., Mustarelli P (2013). Li-doped mixtures of alkoxy- N-methylpyrrolidinium bis(trifluoromethanesulfonyl)-imide and organic carbonates as safe liquid electrolytes for lithium batteries. JOURNAL OF POWER SOURCES, vol. 237, p. 204-209, ISSN: 0378-7753
44	2013	Articolo in rivista C. Tealdi, E. Quartarone, P. Galinetto, M. Grandi, P. Mustarelli (2013). Flexible deposition of $\text{TiO}_2$ electrodes for photocatalytic applications: Modulation of the crystal phase as a function of the layer thickness. JOURNAL OF SOLID STATE CHEMISTRY, vol. 199, p. 1-6, ISSN: 0022-4596, doi: 10.1016/j.jssc.2012.11.019
45	2013	Articolo in rivista Giovanna Bruni, Mariarosa Maietta, Lauretta Maggi, Piercarlo Mustarelli, Chiara Ferrara, Vittorio Berbenni, Mauro Freccero, Federico Scotti, Chiara Milanese, Alessandro Girella, Amedeo Marini (2013). An Experimental and Theoretical Investigation of Loperamide Hydrochloride-Glutaric Acid Co-Crystals.. JOURNAL OF PHYSICAL CHEMISTRY. B, CONDENSED MATTER, MATERIALS, SURFACES, INTERFACES & BIOPHYSICAL, vol. 117, p. 8113-8121, ISSN: 1520-6106, doi: 10.1021/jp404273x
46	2013	Articolo in rivista C. Ferrara, C. Tealdi, A. Pedone, M. Menziani, A. Rossini, G. Pintacuda, P. Mustarelli (2013). Local versus average structure in $\text{LaSrAl}_3\text{O}_7$ : A NMR and DFT investigation. JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 117, p. 23451-23458, ISSN: 1932-7447, doi: 10.1021/jp403022j
47	2013	Articolo in rivista Kalantarian M. M., Asgari S., Capsoni D., Mustarelli P. (2013). An ab initio investigation of $\text{Li}_2\text{M}_{0.5}\text{N}_{0.5}\text{SiO}_4$ (M, N = Mn, Fe, Co Ni) as Li-ion battery cathode materials. PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol. 15, p. 8035-8041, ISSN: 1463-9084, doi: 10.1039/c3cp51481a
48	2012	Articolo in rivista Tealdi C., Ferrara C., Mustarelli P., Islam M.S. (2012). Vacancy and interstitial oxide ion migration in heavily doped $\text{La}_{2-x}\text{Sr}_x\text{CoO}_{4\pm\delta}$ . JOURNAL OF MATERIALS CHEMISTRY, vol. 22, p. 8969-8975, ISSN: 0959-9428, doi: 10.1039/c2jm30769c

56	2012	<p>Articolo in rivista</p> <p>C. Tealdi, C. Ferrara, L. Malavasi, P. Mustarelli, C. Ritter, A. Spinella, D. Massiot, P. Florian (2012). Average versus local structure in K<sub>2</sub>NiF<sub>4</sub>-type LaSrAlO<sub>4</sub>: Direct experimental evidence of local cationic ordering. JOURNAL OF MATERIALS CHEMISTRY, vol. 22, p. 10488-10495, ISSN: 0959-9428, doi: 10.1039/c2jm30603d</p>
57	2012	<p>Articolo in rivista</p> <p>Lavall R. L., Ferrari S., Tomasi C., Marzantowicz M., Quartarone E., Fagnoni M., Mustarelli P., Saladino M. L. (2012). MCM-41 silica effect on gel polymer electrolytes based on thermoplastic polyurethane. ELECTROCHIMICA ACTA, vol. 60, p. 359-365, ISSN: 0013-4686</p>
58	2012	<p>Articolo in rivista</p> <p>Doretta Capsoni, Marcella Bini, Stefania Ferrari, Eliana Quartarone, Piercarlo Mustarelli (2012). Recent advances in the development of Li-air batteries. JOURNAL OF POWER SOURCES, vol. 220, p. 253-263, ISSN: 0378-7753, doi: 10.1016/j.jpowsour.2012.07.123</p>
59	2012	<p>Articolo in rivista</p> <p>Bini Marcella, Ferrari Stefania, Capsoni Doretta, Mustarelli Piercarlo, Spina Gabriele, Del Giallo Franco, Lantieri Marco, Leonelli Cristina, Rizzuti Antonino, Massarotti Vincenzo (2012). Pair distribution function analysis and Mössbauer study of defects in microwave-hydrothermal LiFePO<sub>4</sub>. RSC ADVANCES, vol. 2, p. 250-258, ISSN: 2046-2069</p>
60	2012	<p>Articolo in rivista</p> <p>E. Quartarone, P. Mustarelli (2012). Polymer fuel cells based on polybenzimidazole/H<sub>3</sub>PO<sub>4</sub>. ENERGY &amp; ENVIRONMENTAL SCIENCE, vol. 5, p. 6436-6444, ISSN: 1754-5692</p>
61	2012	<p>Articolo in rivista</p> <p>Shruti S., Salinas A.J., Malavasi G., Lusvardi G., Menabue L., Ferrara C., Mustarelli P., Vallet-Regi M. (2012). Structural and in vitro study of cerium, gallium and zinc containing sol-gel bioactive glasses. JOURNAL OF MATERIALS CHEMISTRY, vol. 22, p. 13698-13706, ISSN: 0959-9428</p>
62	2011	<p>Articolo in rivista</p> <p>Grandi S., Cassinelli V., Bini M., Saino E., Mustarelli P., Arciola C.R., Imbriani M., Visai L. (2011). Bone reconstruction: Au nanocomposite bioglasses with antibacterial properties. INTERNATIONAL JOURNAL OF ARTIFICIAL ORGANS, vol. 34, p. 920-928, ISSN: 0391-3988, doi: 10.5301/ijao.5000059</p>
63	2011	<p>Articolo in rivista</p> <p>V. Di Noto, M. Piga, G.A. Giffin, E. Quartarone, P.P. Righetti, P. Mustarelli, A. Magistris (2011). Structure-Property Interplay of Proton Conducting Membranes Based on Poly-2,2-(2,6-pyridine)-5,5-benzimidazole, SiO<sub>2</sub>-Im and H<sub>3</sub>PO<sub>4</sub> for High Temperature Fuel Cells. PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol. 13, ISSN: 1463-9076</p>

71	2010	Articolo in rivista Ferrari Stefania, Quartarone Eliana, Mustarelli Piercarlo, Magistris Aldo, Fagnoni Maurizio, Protti Stefano, Gerbaldi Claudio, Spinella Alberto (2010). Lithium ion conducting PVdF-HFP composite gel electrolytes based on N-methoxyethyl-N-methylpyrrolidinium bis(trifluoromethanesulfonyl)-imide ionic liquid. JOURNAL OF POWER SOURCES, vol. 195, p. 559-566, ISSN: 0378-7753
72	2010	Articolo in rivista Coccini T, Roda E, Sarigiannis DA, Mustarelli P, Quartarone E, Profumo A, Manzo L (2010). Effects of water-soluble functionalized multi-walled carbon nanotubes examined by different cytotoxicity methods in human astrocyte D384 and lung A549 cells.. TOXICOLOGY, vol. 269, p. 41-53, ISSN: 0300-483X
73	2010	Articolo in rivista Catauro M., Verardi D., Melisi D., Belotti F., Mustarelli P. (2010). Novel sol-gel organic-inorganic hybrid materials for drug delivery. JOURNAL OF APPLIED BIOMATERIALS & BIOMECHANICS, vol. 8, p. 42-51, ISSN: 1722-6899
74	2010	Articolo in rivista Tealdi Cristina, Ferrara Chiara, Malavasi Lorenzo, Mustarelli Piercarlo, Ritter Clemens, Chiodelli Gaetano, Diaz-Fernandez Yuri Antonio (2010). High-temperature neutron diffraction study of La <sub>2-x</sub> Sr <sub>x</sub> CoO <sub>4</sub> : correlation between structure and transport properties. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 82, ISSN: 1098-0121, doi: 10.1103/PhysRevB.82.174118
75	2010	Articolo in rivista Kurdakova Valeria, Quartarone Eliana, Mustarelli Piercarlo, Magistris Aldo, Caponetti Eugenio, Saladino Maria Luisa (2010). PBI-based composite membranes for polymer fuel cells. JOURNAL OF POWER SOURCES, vol. 195, p. 7765-7769, ISSN: 0378-7753
76	2010	Articolo in rivista Grandi Stefania, Mustarelli Piercarlo, Carollo Arianna, Tomasi Corrado, Quartarone Eliana, Magistris Aldo (2010). New fillers for PBI-based composite electrolytes in polymer fuel cells. COMPOSITE INTERFACES, ISSN: 0927-6440
77	2010	Articolo in rivista Mustarelli Piercarlo (2010). The development of high temperature PEMFCs: reasons and perspectives. FUEL CELLS, vol. 10, p. 753, ISSN: 1615-6846



85	2009	<p>Articolo in rivista</p> <p>Ferrari Stefania, Quartarone Eliana, Mustarelli Piercarlo, Magistris Aldo, Protti Stefano, Lazzaroni Simone, Fagnoni Maurizio, Albini Angelo (2009). A binary ionic liquid system composed of N-methoxyethyl-N-methylpyrrolidinium bis(trifluoromethanesulfonyl)-imide and lithium bis(trifluoromethanesulfonyl)imide: A new promising electrolyte for lithium batteries. JOURNAL OF POWER SOURCES, p. 45-50, ISSN: 0378-7753, doi: 10.1016/j.jpowsour.2008.12.013</p>
86	2009	<p>Articolo in rivista</p> <p>Pina Sonia, Ghigna Paolo, Spinolo Giorgio, Quartarone Eliana, Mustarelli Piercarlo, D'Acapito Francesco, Migliori Andrea, Calestani Gianluca (2009). Nanoscale formation of new solid-state compounds by topochemical effects: The interfacial reactions ZnO with Al<sub>2</sub>O<sub>3</sub> as a model system. JOURNAL OF SOLID STATE CHEMISTRY, vol. 182, p. 1291-1296, ISSN: 0022-4596</p>
87	2009	<p>Articolo in rivista</p> <p>Eliana Quartarone, Aldo Magistris, Piercarlo Mustarelli, Stefania Grandi, Arianna Carollo, G.Z. Żukowska, J.E. Garbarczyk, J.L. Nowiński, C. Gerbaldi, S. Bodoardo (2009). Pyridine-based PBI composite membranes for PEMFCs. FUEL CELLS, vol. 9, p. 349-355, ISSN: 1615-6846</p>
88	2009	<p>Articolo in rivista</p> <p>COCCINI T, RODA E, SARIGIANNIS D, CIMINO-REALE G, MUSTARELLI P, PROFUMO A, MANZO L (2009). The degree of functionalization affects in vitro cytotoxicity of multiwalled carbon nanotubes (CNTs). TOXICOLOGY LETTERS, vol. 189S, p. 183-184, ISSN: 0378-4274</p>
89	2009	<p>Articolo in rivista</p> <p>Bini Marcella, Grandi Stefania, Capsoni Doretta, Mustarelli Piercarlo, Saino Enrica, Visai Livia (2009). SiO<sub>2</sub>-P<sub>2</sub>O<sub>5</sub>-CaO glasses and glass-ceramics with and without ZnO: relationships among composition, microstructure, and bioactivity. JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 113, p. 8821-8828, ISSN: 1932-7447</p>
90	2009	<p>Articolo in rivista</p> <p>Fagnoni Maurizio, Profumo Antonella, Merli Daniele, Dondi Daniele, Mustarelli Piercarlo, Quartarone Eliana (2009). Water miscible liquid multiwalled carbon nanotubes. ADVANCED MATERIALS, vol. 21, p. 1761-1765, ISSN: 0935-9648, doi: 10.1002/adma.200801994</p>

98	2007	Articolo in rivista Mustarelli Piercarlo, Tomasi Corrado, Magistris Aldo (2007). A microscopic interpretation of the bulk anomalies in AgI-Ag <sub>2</sub> O.2B <sub>2</sub> O <sub>3</sub> glasses. PHILOSOPHICAL MAGAZINE, vol. 87, p. 787-794, ISSN: 1478-6435
99	2007	Articolo in rivista ANEDDA C.A., CARBONARO C.M., CORPINO R., RICCI P.C., GRANDI S., MUSTARELLI P. (2007). Formation of fluorescent aggregates in Rhodamine 6G doped silica glasses. JOURNAL OF NON-CRYSTALLINE SOLIDS, vol. 353, p. 481-485, ISSN: 0022-3093
100	2007	Articolo in rivista Grandi Stefania, Tomasi Corrado, Mustarelli Piercarlo, Clemente Francesca, Carbonaro C.M. (2007). Characterisation of a new sol-gel precursor for a SiO <sub>2</sub> -rhodamine 6G hybrid class II material. JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol. 41, p. 57-63, ISSN: 0928-0707
101	2007	Articolo in rivista Quartarone Eliana, Mustarelli Piercarlo, Grandi Stefania, Marabelli Franco, Bontempi L. (2007). Effects of the deposition parameters on the growth of ultrathin and thin SiO <sub>2</sub> films. THE JOURNAL OF VACUUM SCIENCE AND TECHNOLOGY, vol. 25, p. 485-491, ISSN: 0022-5355
102	2007	Articolo in rivista Quartarone Eliana, Carollo Arianna, Tomasi Corrado, Belotti Federico, Grandi Stefania, Mustarelli Piercarlo, Magistris Aldo (2007). Relationships between microstructure and transport properties of proton-conducting porous PVDF membranes. JOURNAL OF POWER SOURCES, vol. 168, p. 126-134, ISSN: 0378-7753
103	2006	Articolo in rivista Mustarelli Piercarlo, Tomasi C., Infante Garcia Maria Del Pilar, Magistris Aldo (2006). A NMR, Conductivity and Molecular Dynamics Study of AgI-Ag <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub> Glasses,. PHYSICS AND CHEMISTRY OF GLASSES, vol. 47, p. 484-488, ISSN: 0031-9090
104	2006	Articolo in rivista Capsoni Doretta, Bini Marcella, Massarotti Vincenzo, Mustarelli Piercarlo, Belotti Federico, Galinetto Pietro (2006). Cation distribution in LiMgVO <sub>4</sub> and LiZnVO <sub>4</sub> : structural and spectroscopic study. JOURNAL OF PHYSICAL CHEMISTRY. B, MATERIALS, SURFACES, INTERFACES, & BIOPHYSICAL, vol. 110, p. 5409-5415, ISSN: 1089-5647
105	2006	Articolo in rivista Grandi Stefania, Magistris Aldo, Mustarelli Piercarlo, Quartarone Eliana, Tomasi Corrado, Meda Laura (2006). Synthesis and characterisation of SiO <sub>2</sub> -PEG hybrid materials. JOURNAL OF NON-CRYSTALLINE SOLIDS, vol. 352, p. 273-280, ISSN: 0022-3093

113	2005	Articolo in rivista P. MUSTARELLI, L. LINATI, V. TARTARA, C. TOMASI, A. MAGISTRIS (2005). Structure/transport relationships in silver-based oxide glasses: 1-D and 2-D NMR information. SOLID STATE NUCLEAR MAGNETIC RESONANCE, vol. 27, p. 112-121, ISSN: 0926-2040
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130	2002	Articolo in rivista Feltri Fiorenza, Grandi Stefania, Mustarelli Piercarlo, Cutroni M., Mandanici Andrea (2002). GeO <sub>2</sub> -doped silica glasses: an ac conductivity study. SOLID STATE IONICS, p. 217-221, ISSN: 0167-2738
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132	2002	Articolo in rivista Cutroni M., Mandanici Andrea, Mustarelli Piercarlo, Tomasì Corrado (2002). Conductivity dynamical response in (AgI) <sub>x</sub> (AgPO <sub>3</sub> ) <sub>1-x</sub> glasses. SOLID STATE IONICS, p. 713-717, ISSN: 0167-2738
133	2002	Articolo in rivista Quartarone Eliana, Mustarelli Piercarlo, Magistris Aldo (2002). Transport properties of porous PVdF membranes. JOURNAL OF PHYSICAL CHEMISTRY. B, MATERIALS, SURFACES, INTERFACES, & BIOPHYSICAL, p. 10828-10833, ISSN: 1089-5647
134	2002	Articolo in rivista Saito Yuria, Kataoka Hiroshi, Quartarone Eliana, Mustarelli Piercarlo (2002). Carrier migration mechanism of physically cross-linked polymer gel electrolytes based on PVDF membranes. JOURNAL OF PHYSICAL CHEMISTRY. B, MATERIALS, SURFACES, INTERFACES, & BIOPHYSICAL, p. 7200-7204, ISSN: 1089-5647
135	2002	Articolo in rivista S. GRANDI, P. MUSTARELLI, A. MAGISTRIS (2002). Sol-gel preparation of GeO <sub>2</sub> -doped SiO <sub>2</sub> glasses. PHILOSOPHICAL MAGAZINE. B. PHYSICS OF CONDENSED MATTER. STATISTICAL MECHANICS, ELECTRONIC, OPTICAL AND MAGNETIC PROPERTIES, vol. 82, p. 607-615, ISSN: 1364-2812
136	2002	Articolo in rivista Cutroni M., Mandanici Andrea, Mustarelli Piercarlo, Tomasì Corrado, Federico G. (2002). Ionic conduction and dynamical regimes in silver phosphate glasses. JOURNAL OF NON-CRYSTALLINE SOLIDS, p. 963-970, ISSN: 0022-3093

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146	2001	<p>Articolo in rivista  Tomasi Corrado, Magistris Aldo, Linati Laura, Mustarelli Piercarlo (2001). Carriers density and mobility in AgI:AgPO3 glasses: a NMR study. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, ISSN: 1098-0121</p>
147	2001	<p>Articolo in rivista  Leonelli Cristina, Lusvardi G., Montorsi Monia, Menziani Maria Cristina, Menabue Ledi, Mustarelli Piercarlo, Linati Laura (2001). Influence of small additions of Al2O3 on the properties of the Na2O:3SiO2 glasses. THE JOURNAL OF PHYSICAL CHEMISTRY, p. 919-927, ISSN: 0022-3654</p>

- "New PBI-based membranes for HT-PEMFCs"  
Invited speaker, 1st LOLIPEM Seminar, Grottaferrata, Italy, 17-18 March 2011.  
dal 17-03-2011 al 18-03-2011
- "New development strategies for PBI membranes for HT-PEMFCs"  
Invited speaker, 18th International Conference on Solid State Ionics, Warsaw (Poland) 3-8 July 2011.  
dal 03-07-2011 al 08-07-2011
- "Materials and Devices for Energy Conversion and Storage"  
Invited speaker and Member of Advisory Board, 2nd Indo-Italian Workshop on Electrochemistry for Future Energy Solutions, Delhi (India), 30 November-1 December 2011.  
dal 30-11-2011 al 01-12-2011
- "Materials and Devices for Energy Conversion and Storage"  
Invited speaker, International Conference on Innovations in Chemistry for Sustainable Development (ICDS-2011), Chandigarh (India) 1-3 December 2011.  
dal 01-12-2011 al 03-12-2011
- Organizzazione di conferenza  
2012: International Symposium on Boron Neutron Capture Therapy, Pavia, Member of the Organizing Committee.  
dal 28-05-2012 al 28-05-2012
- "Review of modern solid state NMR applications to solid electrolytes"  
Invited speaker, International Symposium on Advanced Materials Having Multi-Degrees-of-Freedom (ISAMMDoF), Kumamoto (Japan) 1-2 November 2012.  
dal 01-11-2012 al 02-11-2012
- "Solid State NMR spectroscopy: from ex situ, to in situ and in operando applications to lithium batteries"  
Invited speaker, 64th Annual Meeting of the International Society of Electrochemistry, Santiago de Queretaro, Mexico, 8-13 September 2013.  
dal 08-09-2013 al 13-09-2013
- Organizzazione di Conferenza  
2013: Giornate dell'Elettrochimica Italiana, GEI 2013, Pavia, President of the Organizing Committee.  
dal 22-09-2013 al 27-09-2013
- "PBI-based membranes for high temperature PEMFCs: proton transport and functional properties"  
Invited speaker, 225th Meeting of Electrochemical Society, Orlando, U.S.A., 11-16 May 2014.  
dal 11-05-2014 al 16-05-2014
- Organizzazione di Conferenza  
2014: 7th German-Italian-Japanese Meeting of Electrochemists, Padova, Member of the Organizing Committee.  
dal 14-06-2014 al 16-06-2014
- Organizzazione di Conferenza  
2014: EmHyTec 2014, Taormina, Member of the International Advisory Board.  
dal 09-12-2014 al 12-12-2014
- Organizzazione di Conferenza  
2015: Congress on Materials Science and Polymer Engineering, Dubai, Member of the Organizing Committee.  
Vedi sito web: <http://materials-polymerscience-expo.conferencefederation.com/organizing-committee.php>  
dal 26-11-2015 al 28-11-2015
- Organizzazione di Conferenza  
2016: 1st Italian Congress of Enerchem Group, Firenze, Member of the Scientific Committee.  
dal 18-02-2016 al 20-02-2016

- Progetto ASTIL (Regione Lombardia) - Collaborazione Italia-Brasile  
 Titolo: Studio di materiali e fabbricazione di dimostratori di celle a combustibile a ossidi solidi operanti a temperature intermedie - IT SOFC  
 Ruolo: Direzione del progetto  
 dal 28-10-2010 al 28-10-2012
- Progetto ""Applicazioni della nanomedicina in malattie modello associate all'invecchiamento: attivazione di una piattaforma tecnologica in grado di affrontare aspetti fondamentali di patogenesi, diagnosi e terapia" - Fondazione Almamater Pavia, responsabile del progetto  
 dal 01-04-2011 al 31-03-2013
- Progetto: "New nanostructured materials for innovative lithium-air, high energy rechargeable batteries", Fondazione Cariplo, rif. 2010-0506 (tre gruppi di ricerca).  
 Ruolo: Responsabile scientifico  
 dal 01-05-2011 al 31-10-2013
- Progetto  
 "From materials science to the development of devices for diagnosis and therapy of age-induced diseases" (Regione Lombardia, 2010-2012).  
 Ruolo: co-responsabile scientifico (22 gruppi di ricerca partecipanti)  
 dal 01-11-2011 al 31-12-2012
- Progetto CNR MSE "Materiali e tecnologie abilitanti per la ricerca di sistema elettrico " -  
 Responsabile unità Università di Pavia  
 dal 01-01-2012 al 31-12-2012
- Progetto: "Rice straw valorization: recovery of inorganic and organic components - RIVARIO"  
 Fondazione Cariplo, rif. 2015-0400 (due gruppi di ricerca).  
 Ruolo: responsabile gruppo INSTM.  
 dal 01-06-2016 a oggi

Responsabilita' di studi e ricerche scientifiche affidati da qualificate istituzioni pubbliche o private

- Progetto bilaterale Italia-Giappone "Polymer electrolytes for lithium batteries (MURST-MITI 1999-2001) bilateral cooperation with Osaka National Research Institute (Prof. Y. Saito) Ruolo: Responsabile parte italiana (vedi titoli - b)  
dal 02-01-1999 al 31-12-2001
- Progetto: "Relazioni tra struttura a medio raggio e dinamica ionica in vetri di ossidi inorganici studiate mediante NMR allo stato solido" (Italian Ministry of University and Research, MIUR-PRIN 2004, 3 research groups from 3 universities). Ruolo: Responsabile unità di ricerca Università di Pavia (vedi titoli - b)  
dal 01-01-2005 al 31-12-2006
- Progetto bilaterale "Novel nanomaterials based on conducting glasses for energy conversion/storage devices" (Bilateral project Italy-Poland 2007-2009). Ruolo: responsabile parte italiana (vedi titoli - b).  
dal 02-01-2007 al 31-12-2008
- Progetto di ricerca "Photocatalytic water splitting device for separate hydrogen and oxygen evolution" (Project CARIPO 2008-2010) Collaborazione con Università Milano Statale (prof. Selli). Ruolo: Responsabile unità di ricerca di Pavia (vedi titoli - b)  
dal 01-01-2009 al 31-12-2011
- Progetto ASTIL (Regione Lombardia) - Collaborazione Italia-Brasile Titolo: Studio di materiali e fabbricazione di dimostratori di celle a combustibile a ossidi solidi operanti a temperature intermedie - IT SOFC Ruolo: Direzione del progetto (vedi titoli - b)  
dal 28-10-2010 al 28-10-2012
- Progetto: "New nanostructured materials for innovative lithium-air, high energy rechargeable batteries", Fondazione Cariplo, rif. 2010-0506 (tre gruppi di ricerca). Ruolo: Responsabile scientifico (vedi titoli - b)  
dal 01-05-2011 al 31-10-2013
- Progetto "From materials science to the development of devices for diagnosis and therapy of age-induced diseases" (Regione Lombardia, 2010-2012). Ruolo: co-responsabile scientifico (22 gruppi di ricerca partecipanti) (vedi titoli - b)  
dal 01-11-2011 al 31-12-2012

Direzione o partecipazione a comitati editoriali di riviste, collane editoriali, enciclopedie e trattati di riconosciuto prestigio

- Guest Editor del numero speciale "The development of high temperature PEMFCs: Reasons and perspectives"  
(2010) Fuel Cells, 10 (5)  
dal 01-01-2010 al 31-12-2010
- American Journal of Engineering and Applied Science - membro dell'Editorial Board  
dal 01-01-2011 al 30-11-2012
- Batteries - MDPI (Switzerland) - Open Access Journal  
Member of the Editorial Board  
<http://www.mdpi.com/journal/batteries/editors>  
dal 27-09-2014 a oggi

Partecipazione al collegio dei docenti ovvero attribuzione di incarichi di insegnamento, nell'ambito di dottorati di ricerca accreditati dal Ministero



- Referee per le più importanti riviste del settore, incluse: Nature Energy, Nature Communications, Nature Materials Review, Angewandte Chemie, Journal of American Chemical Society, Chemistry of Materials, Journal of Materials Chemistry, Journal of Physical Chemistry, PCCP, Journal of Power Sources, etc.  
dal 01-01-1990 a oggi
- Contratto di ricerca con Fenzi S.p.a. "Messa a punto di formulazioni per la preparazione di smalti vetrosi privi di ossido di piombo" - Direttore della ricerca  
dal 09-01-2002 al 08-01-2003
- Contratto di ricerca con Newchem S.r.l. per "Misure 1H-13C MAS NMR su prodotti farmaceutici"-  
Direttore della ricerca  
dal 01-08-2016 al 30-09-2016

