

## CURRICULUM VITAE ET STUDIORUM: PROF. Gianluca Malavasi



**Personal data:** Born in Modena (Italy), 21/07/1975

**Present Position:** Associate Professor from November 2014

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### EDUCATION

- **July 1999** Degree in Chemistry (110/110 summa cum laude) at the University of Modena and Reggio Emilia, Italy with a thesis entitled 'Polycarboxylate Zirconium (IV) complexes as raw materials for the preparation of pure  $ZrO_2$ ', under the supervision of Prof. L. Menabue and Prof. M. Saladini.
- **April 2004** Ph. D. in Chemistry at Dept. of Chemistry, University of Modena and Reggio Emilia, Italy with a thesis entitled 'Synthesis, characterization and computational simulation of inorganic oxides', under the supervision of Prof. L. Menabue, Prof. M.C. Menziani and Prof. G. Lusvardi.

### PREVIOUS POSITIONS AND FELLOWSHIPS

- **From April 2004 to December 2004.** Postdoctoral position at University of Modena e Reggio Emilia, Italy.
- **From January 2005 to October 2014.** Assistant Professor (CHIM03-General and Inorganic Chemistry) at the Dept. Of Chemistry, University of Modena and Reggio Emilia, Italy.

### VISITS AND STAYS

- **September 2014 to December 2002** Visiting at Aberystwyth-University of Wales-U.K. in the labs of Prof. G.N. Greaves
- **September 2003** Visiting scientist at the Physical and Theoretical Chemistry Lab.- Oxford University-U.K. (Prof. P.A. Madden)

- **April 2014 to June 2014** Visiting Professor at the Department of Inorganic and Bioinorganic Chemistry of the Faculty of Pharmacy at Universidad Complutense de Madrid in the labs. of Prof. M. Vallet-Regi and Prof. A.J. Salinas (<http://www.valletregigroup.com>)

### **BRIEF DESCRIPTION OF THE RESEARCH ACTIVITY**

The research activity is mainly focused on the field of inorganic material chemistry; in particular, the activity can be divided into two lines:

- i) one is devoted to the synthesis, characterization and application of inorganic oxides (for example nanoparticles, pigments, phosphorescent aluminate...) used mainly in the ceramic field;
  - ii) the second one is the synthesis (melting, sol-gel and EISA) and the characterization through a computational & experimental approach of silica-based glasses, in particular bioactive glasses. The characterization is focused on the determination of material bioactivity and enzymatic-like activity
- Expertise: Powder X-Ray Diffraction, Thermal Analysis, Spectroscopic Analysis, Textural Analysis (N<sub>2</sub> adsorption) and Classical Molecular Dynamic Simulations of amorphous systems.

### **MAJOR COLLABORATIONS**

- GM has established numerous national collaborations (Dip. di Chimica - Università di Torino Gruppo Prof. G. Martra, Dip. DiSCAFF – Piemonte Orientale, Dip. Di Scienze Agrarie – Università di Bologna, Scuola Normale Superiore di Pisa) ed international collaboration (Departamento de Química Inorgánica y Bioinorgánica - Universidad Complutense Madrid Gruppo Prof. M. Vallet-Regi e Prof. A.J. Salinas; Kazuo Inamori School of Engineering, New York State College of Ceramics Alfred University Gruppo Prof. A.N. Cormack; CEA, IRAMIS, Gif-sur-Yvette, France Gruppo Dr. T. Charpentier; Otto Schott Institute of Materials Research, Friedrich Schiller University Jena, Germany Gruppo Prof. Delia S. Brauer).

### **FUNDING AND PROJECTS**

GM has participated and still participates in several national research projects (PRIN and Firb-Futuro in Ricerca) and regional (Spinner2013). He also received funding for his research from Fondazioni (Fondazione di Vignola) and from private companies through the signing of contracts and agreements.

## TEACHING ACTIVITIES

- February 2003 – Tutor in the “I Scuola Nazionale in Simulazioni Computazionali Multiscala Applicate alle Scienze dei Materiali”, Modena 17-21 Febbraio 2003
- February 2005 – Teacher in the “III Scuola Nazionale in Simulazioni Computazionali Multiscala Applicate alle Scienze dei Materiali”, Modena 14-18 Febbraio 2005
- December 2005-April 2006 Teacher of the course “Chimica” for the CORSI ABILITANTI SPECIALI EX LEGGE 143/04
- June - September 2007 tutor in the CORSI ABILITANTI SPECIALI LEGGE 143/04 Decreto 85/2005
- Teacher of the courses: 1) ‘Laboratorio di Chimica dei Materiali’ al 3° anno della Laurea in Chimica (4 CFU); 2) Modulo nel corso di “Chimica” al 1° anno della Laurea Specialistica in Scienze per il recupero e la conservazione del patrimonio archeologico (2 CFU) (from the academic years 2004/2005 to 2006/2007).
- Teacher of the courses: 1) ‘Chimica dei Materiali Inorganici e Laboratorio’ al 3° anno della Laurea in Chimica (5 CFU); 2) Modulo nel corso di “Chimica” al 1° anno della Laurea Specialistica in Scienze per il recupero e la conservazione del patrimonio archeologico (2 CFU); 3) “Chimica Inorganica Applicata” al 3° anno della Laurea in Chimica (4 CFU). (in the academic year 2007/2008).
- Teacher of the courses: 1) ‘Chimica dei Materiali Inorganici e Laboratorio’ al 3° anno della Laurea in Chimica (5 CFU); 2) Modulo nel corso di “Chimica” al 1° anno della Laurea Specialistica in Scienze per il recupero e la conservazione del patrimonio archeologico (2 CFU); 3) “Chimica Inorganica Applicata” al 3° anno della Laurea in Chimica (4 CFU). 4) Modulo di laboratorio nel corso di “Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (3 CFU). (in the academic year 2008/2009).
- Teacher of the courses: 1) ‘Chimica dei Materiali Inorganici e Laboratorio’ al 3° anno della Laurea in Chimica (5 CFU). 2) “Chimica Inorganica Applicata” al 3° anno della Laurea in Chimica (4 CFU). 3) Modulo di laboratorio nel corso di “Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (3 CFU) (in the academic year 2009/2010).
- Tutor of the course: “Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (48 ore) (in the academic year 2010/2011).

- Teacher of the course: “Chimica Inorganica Industriale e Ambientale” al 3°anno della Laurea in Chimica (L-27) (48 ore, 6CFU) and tutor of the course “Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (48 ore, 3CFU). (in the academic year 2011/2012).
- Teacher of the courses: “Chimica Inorganica Industriale e Ambientale (48 ore, 6CFU)” al 3°anno and “Esercitazioni di Chimica (24 ore, 3CFU)” al 1° anno della Laurea in Chimica (L-27) and tutor of the course “Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (48 ore, 3CFU). Teacher at TFA (Tirocini formativi attivi per la classe di concorso A013) (in the academic year 2012/2013).
- Teacher of the courses: “Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (60 ore, 6 CFU) and at PAS 2014 (Percorsi abilitanti speciali per le classi di concorso A013, A012 e C240) (in the academic year 2013/2014).
- Teacher of the courses: “Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (60 ore, 6CFU) and at TFA 2014-15 (Tirocini Formativi Abilitanti per le classi di concorso A013 e A012) (in the academic year 2013/2014).
- Teacher of the courses: “Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (36 ore, 3CFU) and “Chimica” 8CFU 1° anno della Laurea in Scienze Naturali (64 ore) (in the academic year 2015/2016).
- Teacher of the courses: “Laboratorio di Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (36 ore – 3CFU), and “Chimica” 8CFU 1° anno della Laurea in Scienze Naturali (64 ore). (in the academic year 2016/2017).
- Teacher of the courses: “Laboratorio di Chimica Generale e Inorganica” al 1° anno della Laurea in Chimica (36 ore – 3CFU), “Chimica” 8 CFU al 1° anno della Laurea in Scienze Naturali (68 ore), Chimica Generale (8 ore, 1CFU) - “Chimica e Biochimica” nel CdL in Tecniche di Laboratorio Biomedico (from the academic years 2017/2018 to 2018/2019).
- Teacher of the courses: “Chimica” 9 CFU al 1° anno della Laurea in Scienze Naturali (92 ore), Modulo di Chimica Generale (8 ore, 1CFU) - “Chimica e Biochimica” nel CdL in Tecniche di Laboratorio Biomedico, “Stato Solido” 6CFU (48 ore) al 2° della CdLM in Scienze Chimiche (in the academic year 2019/20-2021/22-2022/23).

#### **SUPERVISION OF PhD STUDENTS AND POSTDOCTORAL FELLOWS**

- GM has been supervisor of 4 PhD students.

## ACADEMIC DUTIES

- Member of “Giunta del Dipartimento di Scienze Chimiche e Geologiche” 2015-2018, 2018-2021;
- Member of CP - Commissione paritetica del Dipartimento di Scienze Chimiche e Geologiche” 2018-2021
- President of the Degree Course in Chemistry and Chemical Sciences from the academic year 2021/2022

## AWARDS

- GM won the "best poster award" in the 9th World Biomaterials Congress (June 2012, Chengdoun, China), as a Co-author.
- The article entitled "Cerium-doped bioactive 45S5 glasses: spectroscopic, redox, bioactivity and biocatalytic properties" (Journal of Materials Science (2017) 52: 8845-8857) was selected from over 90 articles published in the volumes of the Journal of Materials Science as "August finalist" for the 2017 Cahn Prize (August 2017).

## MEMBERSHIPS AND APPOINTMENTS

- Member of the Division of Inorganic Chemistry of the Italian Chemical Society – SCI from 2002.
- Member of the Interuniversity Consortium of Science and Technology of Materials – INSTM from 2002
- Member of the Doctorate School ‘Multiscale Modelling, Computational Simulations and Characterization in Materials and Life Science – M2CSC’ of the University of Modena and Reggio Emilia (from the academic years 2005-2012)
- Member of the Doctorate School ‘Models and Methods for Materials and Environmental Sciences – M3ES’ of the University of Modena and Reggio Emilia (from the academic years 2013-2018 and 2020)

## ORGANIZATION OF SCIENTIFIC MEETINGS AND SCHOOLS

- Member of the Scientific committee of the workshop Winter Modelling (Modena, 13-14 Marzo 2104).

- Member of the editorial board of “Biomedical Glasses” journal, publisher DE GRUYTER OPEN (2014-2021).
- Member of the editorial board of “Materials” journal, publisher MDPI.

#### ACTIVITIES IN REFERRED PROPOSAL and SCIENTIFIC JOURNALS.

Referee of international journal of inorganic and material chemistry: J. Non-Crystalline Solids, Acta Biomaterialia, Applied Surface Science e Materials Science and Engineering C (ed. Elsevier), Advanced Engineering Materials (ed. Wiley), Journal of the Royal Society Interface (ed. RSC), Journal of Physical Chemistry (ACS).

I have been a referee for the grant proposals for the Executive Agency for Higher Education, Research - Development and Innovation Funding - Romanian Ministry of Education, Research, Youth and Sport (2011-2012, 2013-2014) and for Poland executive government agency of National Science Centre (Narodowe Centrum Nauki NCN; <http://www.ncn.gov.pl>) 2018.

#### SELECTED PRESENTATIONS

- *Oral communication at national congress*

1. XXX Congresso Nazionale di Chimica Inorganica, 15-19 Settembre 2002, Modena. CS-04: Na<sub>2</sub>O-CaO-SiO<sub>2</sub>-ZnO bioglasses: experimental and molecular dynamics simulation approach. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani.
2. XXI Congresso Nazionale della Società Chimica Italiana, 22-27 Giugno 2003, Torino. IN-CO-027: Rationalization of NMR data by MD simulation of amorphous system. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani, P. Mustarelli.
3. XXII Congresso Nazionale della Società Chimica Italiana, 10-15 Settembre 2006, Firenze. INO-O-20: Potential bioactive phospho-silicate glasses doped with Ag and Ce prepared by sol-gel route. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani, A. Pedone and U. Segre.
4. G.E.I.-E.R.A.2010-Giornate dell'Elettrochimica Italiana-Elettrochimica per il Recupero, Ambientale, 5-10 Settembre 2010, Modena. Study of self-diffusion process and ionic conduction of CaF<sub>2</sub>-phosphosilicate bioglasses. **G. Malavasi**
5. XXIV Congresso Nazionale della Società Chimica Italiana, 11-16 Settembre 2011, Lecce. INO-OR-07: Novel smart bio-materials: bioactive glasses containing metal nano-particles conjugated with molecules of biological interests. **G. Malavasi**, G. Lusvardi, L. Menabue, E. Ferrari, M. Saladini, V. Aina, C. Morterra, E. Laurenti, L. Bergandi, D. Ghigo (eISBN 978-88-8305-085-5)

6. XLI Congresso Nazionale della Divisione di Chimica Inorganica, 3-6 Settembre 2013, Parma. OC9: Towards the controlled release of metal nanoparticles from biomaterials: physico-chemical, morphological and bioactivity features of Cu-containing sol gel glasses. **Malavasi Gianluca**, Aina Valentina, Cerrato Giuseppina, Martra Gianmario, Lusvardi Gigliola, Menabue Ledi
7. X Convegno Nazionale sulla Scienza e Tecnologia dei Materiali, 28 Giugno – 1 Luglio 2015, Favignana (TP), Oral 38: Catalytic bioactive glasses: catalase mimetic activity, an example. **G. Malavasi**.
8. XXVI Congresso della Società Chimica Italiana, 10-14 Settembre 2017, Paestum (SA), INO-OR47: V. Nicolini, **G. Malavasi**, L. Menabue, G. Lusvardi, F. Benedetti, S. Valeri, P. Luches “Mesoporous bioactive glasses doped with cerium: investigation of catalase and SOD mimetic activities, and bioactivity”

- *Oral communication at International conference*

1. 10th International Ceramic Congress & 3rd Forum on New Materials-CIMTEC2002, 14-18 July 2002, Firenze, Italy. SI-2: L08: Zinc addition sodium-calcium-silicate bioglasses. Theoretical vs experimental results. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani.
2. 10th International Conference of the Physics of Non-Crystalline Solids, 13-17 July 2003, Parma, Italy. O101: A combined experimental and computational approach to  $(\text{Na}_2\text{O})_{1-x}\text{-CaO}\text{-(ZnO)}_x\text{-2SiO}_2$  ( $x=0, 0.20, 0.60$  and  $1$ ) glasses characterization. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani, U. Segre, M.M. Carnasciali.
3. 3rd International Conference of Computational Modelling and Simulation of Material, 30 May-4 June 2004, Acireale (Catania), Italy. B-1: L12: CaO and ZnO in soda-silicate glasses: a molecular dynamic simulation study. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani.
4. IX Conference & Exhibition of the European Ceramic Society, 19-23 June 2005, Portoroz, Slovenia. A-T-O-31: Density of multicomponent silica-based potential bioglasses: Quantitative Structure-Property Relationships (QSPR) analysis. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani, A. Pedone, U. Segre.
5. XI International Congress on the Physics of Non-Crystalline Solids, 20 October – 2 November 2006, Rhodes, Greece. O-CM-2: Medium range order in phospho-silicate bioactive glasses: MAS NMR vs MD simulations. L. Linati, G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani, P. Mustarelli, A. Pedone, U. Segre.
6. XII International Congress on the Physics of Non-Crystalline Solids, 10-13 September 2009, Iguacu Falls, Brazil. O115: Structural and Dynamical properties of  $\text{CaF}_2$ -phosphosilicate glasses: an MD study. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani, A. Pedone.

7. 8th European Conference on Computational Chemistry, 25-28 August 2010, Lund, Sweden. OC-pag.15: Bioactive phospho-silicate glasses: a molecular dynamics simulation study using rigid ion and core shell models. Franchini M., G. Lusvardi, L. Menabue, **G. Malavasi**, M.C. Menziani, A. Pedone

8. 2018 Glass and Optical Materials Division (GOMD) Meeting, 20-24 May 2018, San Antonio, Texas, USA GOMD-S2-011-2018 pag. 17: Bioactive glasses modified by oxides with potential enzymatic-like activities. **G. Malavasi**, L. Menabue, G. Lusvardi.

● *Invited oral communication*

1. Giornata della Chimica in Emilia Romagna, 12-13 Maggio 2003, Modena, Italy. Synthesis, characterization and computational simulation of inorganic amorphous systems. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani.

2. Innovation days 2005, 10-12 May 2005, Palazzo Astoria, Fiorano Modenese, Modena, Italy. Computational simulations in the ceramic field. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani.

3. Joint NIS Colloquium – Centro Scansetti, 11-12 January 2007, Torino, Italy. A new strategy for bioactive glasses development. G. Lusvardi, **G. Malavasi**, L. Menabue, M.C. Menziani, A. Pedone, U. Segre.

4. 2° Forum Nazionale dei Giovani Ricercatori di Scienza e Ingegneria dei Materiali, 3-6 June 2008, Genova, Italy. Elucidation of the Structural Role of Fluorine in Potentially Bioactive Glasses by Experimental and Computational Investigation. **G. Malavasi**

5. NIS Colloquia "Advances in biomaterials: combining simulations and experiments", November 28-29, 2013, Torino, Italy. Bioactive glasses for a “smart” release. **G. Malavasi**.

6. 8ª Conferenza Chimica Sostenibile - Federchimica “Chimica, scienza e industria insieme”, 21 aprile 2021. “Sviluppo di nuove formulazioni per il trattamento superficiale di gres porcellanato: sinergia tra Zschimmer & Schwarz Ceramco e il Dipartimento di Scienze Chimiche e Geologiche – UNIMORE” - Roberto Ferrari e **Gianluca Malavasi**.



## **OTHER INFORMATION**

### **BIBLIOMETRIC INDICATORS**

From 2002 GM has published 92 paper on international journal (with ISSN) and books (with ISBN):

- **84** on **ISI Web** with h\_index **34**, Sum of Times Cited **3529**, update 30/12/2022;
- **84** on **SCOPUS** with h\_index **34**, Sum of Times Cited **3816**, update 30/12/2022;
- **92** in **SCHOLAR GOOGLE** with h\_index **37** (i10-index 68), Sum of Times Cited **4746**, update al 30/12/2022.

### **TECHNOLOGICAL TRANSFER**

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### **PUBLIC ENGAGEMENT**

GM is involved in the Progetto Nazionale di Chimica del Piano Lauree Scientifiche (Modena local unit) from 2005.

## LIST OF SCIENTIFIC PUBLICATIONS ON INTERNATIONAL JOURNALS

N°	Years	Papers on Journals
85	2022	<p><b>Maria Cristina Menziani, Debora Carrozza, Gianluca Malavasi,<sup>c</sup> Erika Ferrari</b>            Alginate beads containing Cerium-doped mesoporous glass and Curcumin: delivery and stabilization of therapeutics  <i>International Journal of Molecular Sciences</i>, accepted            ISSN: 1422-0067 <a href="https://doi.org/10.3390/ijms2120577">https://doi.org/10.3390/ijms2120577</a> I.F. 6.208</p>
84	2022	<p><b>Matteo Mari, Debora Carrozza, Gianluca Malavasi, Ettore Venturi, Giulia Avino, Pier Cesare Capponi, Michele Iori, Sara Rubagotti, Silvia Belluti, Mattia Asti and Erika Ferrari</b>            Curcumin-Based Diketo Ligands for Ga<sup>3+</sup>: Thermodynamic Investigation of Potential Metal-Based Drugs  <i>Pharmaceuticals</i>, 15, 854.  <a href="https://doi.org/10.3390/ph15070854">https://doi.org/10.3390/ph15070854</a> I.F. 5.215</p>
83	2022	<p><b>Gianluca Malavasi, Alfonso Pedone</b>            The Effect of the Incorporation of Catalase Mimetic Activity Cations on the Structural, Thermal and Chemical Durability Properties of the 45S5 Bioglass®  <i>Acta Materialia</i>, 229, 117801.            ISSN: 1359-6454 <a href="http://doi.org/10.1016/j.actamat.2022.117801">http://doi.org/10.1016/j.actamat.2022.117801</a> I.F. 8.203</p>
82	2021	<p><b>Alfonso Zambon, Gianluca Malavasi, Annalisa Pallini, Francesca Fraulini, and Gigliola Lusvardi</b>            Cerium Containing Bioactive Glasses: A Review  <i>ACS Biomater. Sci. Eng.</i>, 7(9), 4388–4401.            ISSN: 2373-9878 <a href="https://doi.org/10.1021/acsbiomaterials.1c00414">https://doi.org/10.1021/acsbiomaterials.1c00414</a> I.F. 4.749</p>
81	2020	<p><b>Gianluca Malavasi,<sup>c</sup> Gigliola Lusvardi</b>            Composition and morphology effects on catalase mimetic activity of potential bioactive glasses  <i>Ceramics International</i>, 46, 25854-25864.            ISSN: 0272-8842 doi:10.1016/j.ceramint.2020.07.067 I.F. 3.830</p>

80	2020	<p><b>Francesco Ronchetti, Leonardo Piccinini, Manuela Deiana, Giuseppe Ciccarese, Valentina Vincenzi, Alessandro Aguzzoli, Gianluca Malavasi, Paolo Fabbri, Alessandro Corsini</b></p> <p>Tracer test to assess flow and transport parameters of an earth slide: the Montecagno landslide case study (Italy)</p> <p><i>Engineering Geology</i>, 275, 105749.</p> <p>ISSN: 0013-7952 doi:10.1016/j.enggeo.2020.105749 <b>I.F. 3.909</b></p>
79	2020	<p><b>Alexandre Anesi, Gianluca Malavasi, Luigi Chiarini, Roberta Salvatori, Gigliola Lusvardi</b></p> <p>Cell evaluation of enduring self-regenerative antioxidant activity of cerium doped bioactive glasses</p> <p><i>Materials</i>, 13(10), 2297.</p> <p>ISSN:1996-1944 doi:10.3390/ma13102297 <b>I.F. 3.057</b></p>
78	2019	<p><b>Luca Rigamonti, Alessandra Forni, Elena Cariati, Gianluca Malavasi, Alessandro Pasini</b></p> <p>Solid-State Nonlinear Optical Properties of Mononuclear Copper (II) Complexes with Chiral Tridentate and Tetradentate Schiff Base Ligands</p> <p><i>Materials</i>, 12(21), 3595.</p> <p>ISSN:1996-1944 doi:10.3390/ma12213595 <b>I.F. 3.057</b></p>
77	2019	<p><b>E. Varini, S. Sánchez-Salcedo, G. Malavasi, G. Lusvardi, M. Vallet-Regí, A.J. Salinas</b></p> <p>Cerium (III) and (IV) containing mesoporous glasses/alginate beads for bone regeneration: bioactivity, biocompatibility and reactive oxygen species activity</p> <p><i>Materials Science &amp; Engineering C</i>, 105, 109971.</p> <p>ISSN: 0928-4931 doi:10.1016/j.msec.2019.109971 <b>I.F. 5.880</b></p>
76	2019	<p><b>Valentina Nicolini, Gianluca Malavasi,<sup>6</sup> Gigliola Lusvardi, Alfonso Zambon, Francesco Benedetti, Giuseppina Cerrato, Sergio Valeri, Paola Luches</b></p> <p>Mesoporous bioactive glasses doped with cerium: investigation over enzymatic-like mimetic activities and bioactivity</p> <p><i>Ceramics International</i>, 45 (16), 20910-20920.</p> <p>ISSN: 0272-8842 doi:10.1016/j.ceramint.2019.07.080 <b>I.F. 3.830</b></p>

75	2019	<p><b>Gianluca Malavasi,<sup>§</sup> Roberta Salvatori, Alfonso Zambon, Gigliola Lusvardi, Luca Rigamonti, Luigi Chiarini and Alexandre Anesi</b></p> <p>Cytocompatibility of Potential Bioactive Cerium-Doped Glasses based on 45S5 <i>Materials</i>, 12(4), 594. ISSN:1996-1944 doi:10.3390/ma12040594 <b>I.F. 3.057</b></p>
74	2019	<p><b>Andrea Silvestri, Maria Laura Ligabue, Gianluca Malavasi and Gigliola Lusvardi</b> Preparation and Luminescence Properties of Ba<sub>5</sub>Si<sub>8</sub>O<sub>21</sub> Long Persistent Phosphors Doped with Rare-Earth Elements <i>Materials</i>, 12, 183. ISSN:1996-1944 doi:10.3390/ma12010183 <b>I.F. 3.057</b></p>
73	2018	<p><b>Francesco Benedetti, Lucia Amidani, Jacopo Stefano Pelli Cresi, Federico Boscherini, Sergio Valeri, Sergio D'Addato, Valentina Nicolini, Gianluca Malavasi and Paola Luches</b> Role of cerium oxide in bioactive glasses during catalytic dissociation of hydrogen peroxide <i>Phys. Chem. Chem. Phys.</i>, 20, 23507-23514. Print/online: ISSN 1463-9076 doi:10.1039/C8CP02271B <b>I.F. 3.906</b></p>
72	2018	<p><b>Alfonso Pedone; Francesco Tavanti; Gianluca Malavasi; Maria Cristina Menziani</b></p> <p>An atomic-level look at the structure-property relationship of cerium-doped glasses using classical molecular dynamics <i>Journal of Non-Crystalline Solids</i>, 498, 331–337. ISSN: 0022-3093 doi:10.1016/j.jnoncrysol.2018.03.040 <b>I.F. 2.124</b></p>
71	2018	<p><b>Sanchez-Salcedo, S.; Malavasi, G.<sup>§</sup>; Salinas, A.J.; Lusvardi, G.; Rigamonti, L.; Menabue, L.; Vallet-Regi, M.</b></p> <p>Highly-Bioreactive Silica-Based Mesoporous Bioactive Glasses Enriched with Gallium (III) <i>Materials</i>, 11, 367. ISSN:1996-1944 doi:10.3390/ma11030367 <b>I.F. 2.972</b></p>
70	2017	<p><b>Francesco Benedetti, Paola Luches, Sergio D'Addato, Sergio Valeri, Valentina Nicolini, Alfonso Pedone, Maria Cristina Menziani, Gianluca Malavasi</b></p> <p>Structure of active cerium sites within bioactive glasses <i>Journal of the American Ceramic Society</i>, 100 (11), 5086-5095.</p>

		Online ISSN: 1551-2916 (print) 0002-7820 (on-line) doi:10.1111/jace.15049 <b>I.F. 2.841</b>
<b>69</b>	<b>2017</b>	<b>Valentina Nicolini, Gianluca Malavasi<sup>§</sup>, Ledi Menabue, Gigliola Lusvardi, Francesco Benedetti, Sergio Valeri, Paola Luches</b> Cerium-doped bioactive 45S5 glasses: spectroscopic, redox, bioactivity and biocatalytic properties <i>Journal of Materials Science</i> , 52, 8845-8857. ISSN: 0022-2461 (Print) 1573-4803 (Online) doi: 10.1007/s10853-017-0867-2 <b>I.F. 2.599</b>
<b>68</b>	<b>2016</b>	<b>Malavasi G, Nicolini V, Gambuzzi E, Menabue L, Menziani MC, Lusvardi G, Pedone A, Benedetti L, Luches P, D'Addato S, Valeri S.</b> Catalytic Bioactive Glasses: Catalase Mimetic Activity, An Example <i>J Appl Biomater Funct Mater</i> , 14(1), e84-e128. eISSN 2280-8000 doi:10.5301/jabfm.5000272 <b>I.F. 0.934</b>
<b>67</b>	<b>2016</b>	<b>Sanchez-Salcedo S, Salinas A, Vallet-Regi M, Malavasi G, Lusvardi G and Menabue L.</b> Development of mesoporous bioactive glasses able to release antibacterial Ga <sup>3+</sup> ions. <i>Front. Bioeng. Biotechnol. Conference Abstract: 10th World Biomaterials Congress</i> ISSN: 2296-4185 doi:10.3389/conf.FBIOE.2016.01.01476 <b>No ISI</b>
<b>66</b>	<b>2016</b>	<b>Valentina Nicolini, Monica Caselli, Erika Ferrari, Ledi Menabue, Gigliola Lusvardi, Monica Saladini and Gianluca Malavasi<sup>§</sup></b> SiO <sub>2</sub> -CaO-P <sub>2</sub> O <sub>5</sub> Bioactive Glasses: A Promising Curcuminoids Delivery System <i>Materials</i> , 9, 290. ISSN:1996-1944 doi:10.3390/ma9040290 <b>I.F. 2.654</b>
<b>66</b>	<b>2016</b>	<b>Valentina Nicolini, Elena Varini, Gianluca Malavasi<sup>§</sup>, Ledi Menabue, Maria Cristina Menziani, Gigliola Lusvardi, Alfonso Pedone, Francesco Benedetti, Paola Luches</b> The effect of composition on structural, thermal, redox and bioactive properties of Ce-containing glasses <i>Materials &amp; Design</i> , Vol. 97, pp. 141-148. ISSN: 0264-1275 doi:10.1016/j.matdes.2016.02.056 <b>I.F. 4.364</b>

65	2016	<p><b>Gigliola Lusvardi, Gianluca Malavasi, Ledi Menabue and Marco Smargiassi</b></p> <p>Systematic investigation of the parameters that influence the luminescence properties of photoluminescent pigments</p> <p><i>Journal of Luminescence</i>, Vol. 175, pp.73-85</p> <p>ISSN: 0022-2313 doi:10.1016/j.jlumin.2016.02.038 I.F. 2.693</p>
64	2015	<p><b>Nicolini, Valentina; Gambuzzi, Elisa; Malavasi, Gianluca,<sup>c</sup> Menabue, Ledi; Menziani, Maria Cristina; Lusvardi, Gigliola; Pedone, Alfonso; Benedetti, Francesco; Luches, Paola; D'Addato, Sergio; Valeri, Sergio</b></p> <p>Evidence of Catalase Mimetic Activity in Ce<sup>3+</sup>/Ce<sup>4+</sup> Doped Bioactive Glasses</p> <p><i>Journal of Physical Chemistry B</i>, Vol. 119 (10), pp. 4009-4019</p> <p>ISSN: 1520-6106 doi:10.1021/jp511737b I.F. 3.187</p>
63	2014	<p><b>Sandra Sánchez Salcedo, Shruti Shruti, Antonio J. Salinas, Gianluca Malavasi, Ledi Menabue, Maria Vallet-Regí</b></p> <p>In vitro antibacterial capacity and cytocompatibility of SiO<sub>2</sub>-CaO-P<sub>2</sub>O<sub>5</sub> meso-macroporous glass scaffolds enriched with ZnO</p> <p><i>Journal of Materials Chemistry B</i> Vol. 2, pp. 4836- 4847</p> <p><b>Print + Online:</b> ISSN 2050-750X doi:10.1039/C4TB00403E I.F. 6.101</p>
62	2014	<p><b>Valentina Aina, Claudio Magistris, Giuseppina Cerrato, Gianmario Martra, Guido Viscardi, Gigliola Lusvardi, Gianluca Malavasi, Ledi Menabue</b></p> <p>New formulation of functionalized bioactive glasses to be used as carriers for the development of a pH-stimuli responsive biomaterials for bone diseases</p> <p><i>Langmuir</i> Vol. 30(16), pp. 4703-4715</p> <p>ISSN (printed): 0743-7463. ISSN (electronic): 1520-5827 doi:10.1021/la5003989 I.F. 4.187</p>
61	2014	<p><b>Valentina Aina, Claudio Magistris, Giuseppina Cerrato, Gianmario Martra, Guido Viscardi, Gigliola Lusvardi, Gianluca Malavasi, Ledi Menabue</b></p> <p>Conjugation of amino-bioactive glasses with 5-aminofluorescein as probe molecule for the development of pH sensitive stimuli-responsive biomaterials</p> <p><i>Journal of Materials Science: Materials in Medicine</i></p> <p>ISSN (Print): 0957-4530, (Online): 1573-4838 doi:10.1007/s10856-014-5206-4 I.F. 2.141</p>

60	2013	<p><b>V. Aina, G. Cerrato, G. Martra, G. Malavasi,<sup>g</sup> G. Lusvardi, L. Menabue</b></p> <p>Towards the controlled release of metal nanoparticles from biomaterials: physico-chemical, morphological and bioactivity features of Cu-containing sol gel glasses</p> <p><i>Applied Surface Science</i> Vol. 283, pp. 240-248</p> <p>ISSN: 00169-4332 doi:10.1016/j.apsusc.2013.06.093 <b>I.F. 2.538</b></p>
59	2013	<p><b>G. Malavasi, L. Menabue, M.C. Menziani, A. Pedone, A.J. Salinas, M. Vallet-Regí</b></p> <p>New insights into the bioactivity of SiO<sub>2</sub>-CaO and SiO<sub>2</sub>-CaO-P<sub>2</sub>O<sub>5</sub> sol-gel glasses by molecular dynamics simulations</p> <p><i>Journal of Sol-Gel Science and Technology</i> Vol. 67(1), pp. 208-219</p> <p>ISSN (printed):0928-0707, (electronic):1573-4846 doi:10.1007/s10971-011-2453-4 <b>I.F. 1.547</b></p>
58	2013	<p><b>Shruti Shruti, Antonio J. Salinas, Erika Ferrari, Gianluca Malavasi,<sup>g</sup> Gigliola Lusvardi, Antonio L. Doadrio, Ledi Menabue, María Vallet-Regí</b></p> <p>Curcumin release from cerium, gallium and zinc containing mesoporous bioactive glasses</p> <p><i>Microporous &amp; Mesoporous Materials</i> Vol. 180, pp. 92-101</p> <p>ISSN: 1387-1811 doi:10.1016/j.micromeso.2013.06.014 <b>I.F. 3.209</b></p>
57	2013	<p><b>Gigliola Lusvardi, Gianluca Malavasi, Ledi Menabue, Shruti Shruti</b></p> <p>Gallium-containing phosphosilicate glasses: Functionalization and vitro bioactivity</p> <p><i>Materials Science and Engineering C</i> Vol. 33 , pp. 3190-3196</p> <p>ISSN: 0928-493 doi:dx.doi.org/10.1016/j.msec.2013.03.046 <b>I.F. 2.736</b></p>
56	2013	<p><b>Malavasi Gianluca, Pedone Alfonso, Menziani Maria Cristina</b></p> <p>Study of the Structural Role of Gallium and Aluminium in 45S5 Bioactive Glasses by Molecular Dynamics Simulations</p> <p><i>Journal of Physical Chemistry B</i> Vol. 117 (15) , pp. 4142-4150</p> <p>Print Ed. ISSN: 1520-6106 Web Ed. ISSN: 1520-5207 doi:10.1021/jp400721g <b>I.F. 3.377</b></p>
55	2013	<p><b>V. Aina, G. Cerrato, G. Martra, L. Bergandi, C. Costamagna, D. Ghigo, G. Malavasi,<sup>g</sup> G. Lusvardi, L. Menabue</b></p>

		<p>Gold-containing bioactive glasses: a solid-state synthesis to produce non-cytotoxic biomaterials for bone cells</p> <p><i>Journal of the Royal Society Interface</i> 10, 20121040</p> <p>ISSN(Print):1742-5689, (Online):1742-5662 doi:dx.doi.org/10.1098/rsif.2012.1040</p> <p><b>I.F. 3.856</b></p>
54	2013	<p><b>V. Aina, L. Bergandi, G. Lusvardi, G. Malavasi, F.E. Imrie, I.R. Gibson, G. Cerrato, D. Ghigo</b></p> <p>Sr-containing hydroxyapatite: Morphologies of HA crystals and bioactivity on osteoblast cells</p> <p><i>Materials Science and Engineering C</i> Vol. 33, pp.1132-1142</p> <p>ISSN: 0928-493 doi:10.1016/j.msec.2012.12.005 <b>I.F. 2.736</b></p>
53	2013	<p><b>S. Shruti, A.J. Salinas, G. Lusvardi, G. Malavasi,<sup>§</sup> L. Menabue, M. Vallet-Regí</b></p> <p>Mesoporous bioactive scaffolds prepared with cerium, gallium and zinc containing glasses</p> <p><i>Acta Biomaterialia</i> Vol. 9, pp. 4836-4844</p> <p>ISSN: 1742-7061 <a href="http://dx.doi.org/10.1016/j.actbio.2012.09.024">http://dx.doi.org/10.1016/j.actbio.2012.09.024</a> <b>I.F. 5.684</b></p>
52	2012	<p><b>V. Aina, G. Lusvardi, B. Annaz, I.R. Gibson, F.E. Imrie, G. Malavasi, L. Menabue, G. Cerrato, G. Martra</b></p> <p>Magnesium- and strontium-co-substituted hydroxyapatite: the effects of doped-ions on the structure and chemico-physical properties</p> <p><i>Journal of Materials Science: Materials in Medicine</i> Vol. 23 (12), pp. 2867-2879</p> <p>ISSN (Print): 0957-4530, (Online):1573-4838 doi:10.1007/s10856-012-4767-3 <b>I.F. 2.141</b></p>
51	2012	<p><b>S. Shruti, A.J. Salinas, G. Malavasi,<sup>§</sup> G. Lusvardi, L. Menabue, C. Ferrara, P. Mustarelli, M. Vallet-Regí</b></p> <p>Structural and in vitro study of cerium, gallium and zinc containing sol-gel bioactive glasses</p> <p><i>Journal of Materials Chemistry</i> Vol. 22, pp. 13698-13706</p> <p>ISSN: 0959-9428 doi:10.1039/C2JM31767B <b>I.F. 6.101</b></p>
50	2012	<p><b>M. Franchini, G. Lusvardi, G. Malavasi,<sup>§</sup> L. Menabue</b></p> <p>Gallium-Containing Phosphosilicate Glasses: Synthesis and in-vitro Bioactivity</p>



		<i>Materials Science and Engineering C</i> Vol. 32, pp. 1401-1406 ISSN: 0928-4931 doi:10.1016/j.msec.2012.04.016 <b>I.F. 2.404</b>
49	2012	<b>A. Bonici, G. Lusvardi, G. Malavasi, L. Menabue, A. Piva</b> Synthesis and characterization of bioactive glasses functionalized with Cu nanoparticles and organic molecules <i>Journal of European Ceramic Society</i> Vol. 32, pp. 2777-2783 ISSN: 0955-2219 doi:10.1016/j.jeurceramsoc.2012.02.058 <b>I.F. 2.360</b>
48	2012	<b>M. Cocchi, C. Durante, G. Lusvardi, G. Malavasi, L. Menabue</b> Evaluation of the behaviour of Fluoride-containing bioactive glasses: reactivity in a simulated body fluid solution assisted by multivariate data analysis <i>Journal of Materials Science: Materials in Medicine</i> Vol. 23, pp. 639-648 ISSN (Print): 0957-4530, (Online):1573-4838 doi:10.1007/s10856-011-4543-9 <b>I.F. 2.141</b>
47	2012	<b>A. Pedone, E. Gambuzzi, G. Malavasi, M.C. Menziani</b> First-Principles Simulations of the $^{27}\text{Al}$ and $^{17}\text{O}$ Solid State NMR spectra of a calcium alumino-silicate glass. <i>Theoretical Chemistry Accounts</i> Vol. 131, pp. 1147-1157 ISSN: (print)1432-881X, (electronic)1432-2234 doi:10.1007/s00214-012-1147-5 <b>I.F. 2.233</b>
46	2011	<b>V. Aina, C. Morterra, G. Lusvardi, G. Malavasi, L. Menabue, S. Shruti, C. L. Bianchi, V. Bolis</b> Ga-modified (Si-Ca-P) sol-gel glasses: possible relationships between surface chemical properties and bioactivity. <i>Journal of Physical Chemistry C</i> Vol. 115, pp. 22461-22474 ISSN: 1932-7447 doi:10.1021/jp207217a <b>I.F. 4.805</b>
45	2011	<b>A.J. Salinas, S. Shruti, G. Malavasi, L. Menabue, M. Vallet-Regí</b> Substitutions of cerium, gallium and zinc in ordered mesoporous bioactive glasses <i>Acta Biomaterialia</i> Vol. 7, pp. 3452-3458 ISSN: 1742-7061 doi:10.1016/j.actbio.2011.05.033 <b>I.F. 4.865</b>
44	2011	<b>V. Aina, D. Ghigo, T. Marchis, G. Cerrato, E. Laurenti, C. Morterra, G. Malavasi, G. Lusvardi, L. Menabue, L. Bergandi</b>

		<p>Novel bio-conjugate materials: soybean peroxidase immobilized on bioactive glasses containing Au nanoparticles</p> <p><i>Journal of Materials Chemistry</i> Vol. 21 (29), pp. 10970-10981</p> <p>ISSN: 0959-9428 doi:10.1039/c1jm10442j <b>I.F. 5.968</b></p>
43	2011	<p><b>L. Bergandi, V. Aina, G. Malavasi, C. Morterra, D. Ghigo</b></p> <p>The toxic effect of fluoride on MG63 osteoblast cells is also dependent on the production of nitric oxide</p> <p><i>Chemico-Biological Interactions</i> Vol. 190(2-3), pp.179-186</p> <p>ISSN: 0009-2797 doi:10.1016/j.cbi.2011.02.003 <b>I.F. 2.865</b></p>
42	2011	<p><b>E. Ferrari, G. Lusvardi, V. Aina, G. Malavasi,<sup>c</sup> F. Fantini, C. Morterra, F. Pignedoli, M. Saladini, L. Menabue</b></p> <p>The role of coordination chemistry in the development of innovative Gallium-based bioceramics: the case of Curcumin</p> <p><i>Journal of Materials Chemistry</i> Vol. 21, pp. 5027-5037</p> <p>ISSN: 0959-9428 doi:10.1039/c0jm3421e <b>I.F. 5.968</b> (please search in ISI-db as gianluca m*)</p>
41	2011	<p><b>V. Aina, F. Bonino, C. Morterra, M. Miola, C. Bianchi, G. Malavasi, M. Marchetti, V. Bolis</b></p> <p>Zn-Substituted Sol-Gel (bioactive) Glasses. Influence of the Glass Chemical Composition on Nature and Activity of the Surface Layer</p> <p><i>Journal of Physical Chemistry C</i> Vol. 115, pp. 2196–2210</p> <p>ISSN: 1932-7447 doi:10.1021/jp1101708 <b>I.F. 4.805</b></p>
40	2011	<p><b>V. Aina, L. Bertinetti, G. Cerrato, M. Cerruti, G. Lusvardi, G. Malavasi, C. Morterra, L. Tacconi, L. Menabue</b></p> <p>On the dissolution/reaction of small-grain Bioglass® 45S5 and F-modified bioactive glasses in artificial saliva (AS)</p> <p><i>Applied Surface Science</i> Vol. 257, pp. 4185–4195</p> <p>ISSN: 00169-4332 doi:10.1016/j.apsusc.2010.12.019 <b>I.F. 2.103</b></p>
39	2010	<p><b>V. Aina, T. Marchis, E. Laurenti, E. Diana, G. Lusvardi, G. Malavasi, L. Menabue, G. Cerrato, C. Morterra</b></p>

		<p>Functionalization of sol gel bioactive glasses carrying Au nanoparticles: selective Au affinity for amino and thiol ligand groups</p> <p><i>Langmuir</i> Vol. 26(24), pp. 18600–18605</p> <p>ISSN (printed): 0743-7463. ISSN (electronic): 1520-5827 doi:10.1021/la1036647 <b>I.F. 4.268</b></p>
<b>38</b>	<b>2010</b>	<p><b>A. Pedone, T. Charpentier, G. Malavasi, M.C. Menziani</b></p> <p>New insights into the Atomic Structure of 45S5 Bioglass® by means of Solid-State NMR Spectroscopy and Accurate First-Principles Simulations.</p> <p><i>Chemistry of Materials</i> Vol. 22, pp. 5644-5652</p> <p>ISSN: 0897-4756(printed) 1520-5002(electronic) doi:10.1021/cm102089c <b>I.F. 6.397</b></p>
<b>37</b>	<b>2010</b>	<p><b>G. Lusvardi, G. Malavasi, V. Aina, L. Bertinetti, G. Cerrato, G. Magnacca, C. Morterra, L. Menabue</b></p> <p>Bioactive glasses containing Au nano-particles: effect of calcination temperature on structure, morphology and surface properties.</p> <p><i>Langmuir</i> Vol. 26 (12), pp 10303–10314</p> <p>ISSN (printed): 0743-7463. ISSN (electronic): 1520-5827 doi:10.1021/la100472p <b>I.F. 4.268</b></p>
<b>36</b>	<b>2010</b>	<p><b>Bergandi L., V. Aina, G. Malavasi, E. Aldieri, E. Laurenti, C. Morterra, D. Ghigo</b></p> <p>Fluoride-containing bioactive glasses inhibit pentose phosphate oxidative pathway and glucose 6-phosphate dehydrogenase activity in human osteoblasts</p> <p><i>Chemico-Biological Interactions</i> Vol. 183 (3), 1405-415</p> <p>ISSN: 0009-2797 doi:10.1016/j.cbi.2009.11.021 <b>I.F. 2.832</b></p>
<b>35</b>	<b>2010</b>	<p><b>M. Pota, A. Pedone, G. Malavasi, C. Durante, M. Cocchi, M.C. Menziani</b></p> <p>Molecular Dynamics Simulations of Sodium Silicate Glasses: Optimization and Limits of the Computational Procedure</p> <p><i>Computational Materials Science</i> Vol. 47, pp. 739–751</p> <p>ISSN: 0927-0256 doi:10.1016/j.commatsci.2009.10.017 <b>I.F. 1.458</b></p>
<b>34</b>	<b>2009</b>	<p><b>M.C. Menziani, A. Pedone, G. Malavasi</b></p> <p>Computational Insight into the Effect of CaO/MgO Substitution on the Structural Properties of Phospho-Silicate Bioactive Glasses</p> <p><i>Journal of Physical Chemistry C</i> Vol. 13 (35), 15723-15730</p>

		ISSN: 1932-7447 doi:10.1021/jp904131t <b>I.F. 4.224</b>
<b>33</b>	<b>2009</b>	<b>G. Lusvardi, G. Malavasi, L. Menabue, V. Aina, C. Morterra</b> Fluoride-containing bioactive glasses: surface reactivity in simulated body solutions. <i>Acta Biomaterialia</i> Vol. 5, pp. 3548-3562. ISSN: 1742-7061 doi:10.1016/j.actbio.2009.06.009 <b>I.F. 3.975</b>
<b>32</b>	<b>2009</b>	<b>G. Lusvardi, G. Malavasi, F. Tarsitano, L. Menabue, M.C. Menziani, A. Pedone</b> Quantitative Structure-Properties Relationships of Potentially Bioactive Fluoro Phospho-Silicate Glasses. <i>Journal of Physical Chemistry B</i> Vol. 113 (30), pp 10331–10338. ISSN: 1520-6106 doi:10.1021/jp809805z <b>I.F. 3.471</b>
<b>31</b>	<b>2009</b>	<b>V. Aina, G. Malavasi, A. Fiorio Pla, L. Munaron, C. Morterra</b> Zinc-containing bioactive glasses: surface reactivity and behaviour towards endothelial cells. <i>Acta Biomaterialia</i> Vol. 5, pp. 1211-1222. ISSN: 1742-7061 doi:10.1016/j.actbio.2008.10.020 <b>I.F. 3.975</b>
<b>30</b>	<b>2009</b>	<b>G. Lusvardi, D. Zaffe, L. Menabue, C. Bertoldi, G. Malavasi, U. Consolo</b> In vitro and in vivo behaviour of Zinc doped phospho-silicate glasses. <i>Acta Biomaterialia</i> Vol. 5, pp. 419-428. ISSN: 1742-7061 doi:10.1016/j.actbio.2008.07.007 <b>I.F. 3.975</b>
<b>29</b>	<b>2008</b>	<b>V. Aina, G. Magnacca, G. Cerrato, F. Bonino, G. Malavasi, C. Morterra</b> Fluoride-containing bioactive glasses: some aspects of reactivity in simulated body solutions. <i>Il Nuovo Cimento B</i> Vol. 123 B (10-11), pp. 1517-1528. ISSN: 1594-9982 (print ed.) 1826-9877 (elect. ed.) doi:10.1393/ncb/i2008-10720-6 <b>I.F. 0.238</b>
<b>28</b>	<b>2008</b>	<b>G. Lusvardi, G. Malavasi, M. Cortada, L. Menabue, M.C. Menziani, A. Pedone, U. Segre</b> Elucidation of the Structural Role of Fluorine in Potentially Bioactive Glasses by Experimental and Computational Investigation <i>Journal of Physical Chemistry B</i> Vol. 112 (40), pp. 12730-12739. ISSN: 1520-6106 doi:10.1021/jp803031z <b>I.F. 4.189</b>

27	2008	<p><b>E. Castellini, R. Andreoli, G. Malavasi, A. Pedone</b></p> <p>Deflocculant effect on the surface properties of kaolinite investigated through malachite green adsorption.</p> <p><i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> Vol. 329, pp. 31-37.</p> <p>ISSN: 0927-7757 doi:10.1016/j.colsurfa.2008.06.045 <b>I.F. 1.926</b></p>
26	2008	<p><b>A. Pedone, G. Malavasi, M.C. Menziani, U. Segre, A.N. Cormack</b></p> <p>The role of Magnesium in soda-lime glasses: insight into structural, transport and mechanical properties through computer simulations</p> <p><i>Journal of Physical Chemistry C</i> Vol. 112 (29), pp. 11034-11041.</p> <p>ISSN: 1932-7447 doi:10.1021/jp801677 <b>I.F.3.396</b></p>
25	2008	<p><b>A. Pedone, G. Malavasi, A.N. Cormack, U. Segre, M.C. Menziani</b></p> <p>Elastic and dynamical properties of alkali silicate glasses from computer simulations techniques.</p> <p><i>Theoretical Chemistry Accounts</i> Vol. 120, pp. 557-564.</p> <p>ISSN: 1432-881x (print), 1432-2234 (electronic) doi:10.1007/s00214-008-0434-7 <b>I.F. 2.370</b></p>
24	2008	<p><b>M.C. Menziani, A.N. Cormack, A. Pedone, G. Malavasi, U. Segre</b></p> <p><b>Molecular dynamics of stress-strain behaviour of silica glass under tensile load.</b></p> <p><i>Chemistry of Materials</i> Vol. 20(13), pp. 4356-4366.</p> <p>ISSN: 0897-4756(printed) 1520-5002(electronic) doi:10.1021/cm800413v <b>I.F. 5.046</b></p>
23	2008	<p><b>G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani, A. Pedone, U. Segre, V. Aina, A. Perardi, C. Morterra, Boccafoschi, S. Gatti, M. Bosetti, M. Cannas</b></p> <p>Properties of zinc releasing surfaces for clinical application.</p> <p><i>Journal of Biomaterials Applications</i> Vol. 22, pp. 505-526.</p> <p>ISSN: 0885-3282 doi:10.1177/0885328207079731 <b>I.F.1.635</b></p>
22	2008	<p><b>A. Pedone, G. Malavasi, U. Segre, M.C. Menziani, F. Musso, M. Corno, B. Civalleri, P. Ugliengo</b></p> <p>FFSiOH: a new force field for silica polymorphs and their hydroxylated surfaces based on periodic B3LYP calculations.</p> <p><i>Chemistry of Materials</i> Vol. 20(7), pp. 2522-2531.</p>

		ISSN: 0897-4756(printed) 1520-5002(electronic) doi:10.1021/cm703437y <b>I.F. 5.046</b>
<b>21</b>	<b>2008</b>	<b>L. Linati, G. Lusvardi, G. Malavasi,<sup>c</sup> L. Menabue, M.C. Menziani, P. Mustarelli, A. Pedone, U. Segre</b> Medium-range order in phospho-silicate bioactive glasses: Insights from MAS-NMR spectra, chemical durability experiments and molecular dynamics simulations <i>Journal of Non-Crystalline Solids</i> Vol. 354, pp. 84-89. ISSN: 0022-3093 doi:10.1016/j.jnoncrysol.2007.06.76 <b>I.F.1.449</b>
<b>20</b>	<b>2007</b>	<b>G. Malavasi, G. Lusvardi, A. Pedone, M.C. Menziani, M. Dappiaggi, A. Gualtieri, L. Menabue</b> Crystallization kinetic of bioactive glasses in the ZnO-Na <sub>2</sub> O-CaO-SiO <sub>2</sub> system. <i>Journal of Physical Chemistry A</i> Vol. 111, pp. 8401-8408. ISSN: 1089-5639 doi:10.1021/jp071528u <b>I.F. 2.918</b>
<b>19</b>	<b>2007</b>	<b>A. Pedone, G. Malavasi, A.N. Cormack, U. Segre, M.C. Menziani</b> Insight into elastic properties of binary alkali-silicate glasses; prediction and interpretation through atomistic simulation techniques. <i>Chemistry of Materials</i> Vol. 19(13), pp. 3144-3154. ISSN: 0897-4756(printed) 1520-5002(electronic) doi:10.1021/cm062619r <b>I.F. 4.883</b>
<b>18</b>	<b>2007</b>	<b>V. Aina, A. Perardi, L. Bergandi, G. Malavasi, L. Menabue, C. Morterra, D. Ghigo</b> Cytotoxicity of zinc-containing bioactive glasses in contact with human osteoblasts. <i>Chemico-Biological Interaction</i> Vol. 167, pp. 207-218. ISSN: 0009-2797 doi:10.1016/j.cbi.2007.03.002 <b>I.F. 3.090</b>
<b>17</b>	<b>2007</b>	<b>A. Pedone, M. Corno, B. Civalleri, G. Malavasi, M.C. Menziani, U. Segre, P. Ugliengo</b> An ab initio parameterized interatomic force field for hydroxyapatite. <i>Journal of Materials Chemistry</i> Vol. 17(20), pp. 2061-2068. ISSN: 0959-9428 doi:10.1039/b617858h <b>I.F. 4.339</b>
<b>16</b>	<b>2007</b>	<b>G. Malavasi, M.C. Menziani, A. Pedone, B. Civalleri, M. Corno, P. Ugliengo</b> A computational multi-scale strategy of the study of amorphous materials. <i>Theoretical Chemistry Accounts</i> Vol. 117, pp. 933-942.

		ISSN: 1432-881x (print), 1432-2234 (electronic) doi:10.1007/s00214-006-0214-1 <b>I.F. 2.537</b>
<b>15</b>	<b>2007</b>	<b>C. Caselli, G. Lusvardi, G. Malavasi, L. Menabue, P. Miselli</b> Multi-technique approach to V-ZrSiO <sub>4</sub> pigment characterization and synthesis optimization. <i>Journal of European Ceramic Society</i> Vol. 27(2-3), pp. 1743-1750. ISSN: 0955-2219 doi:10.1016/j.jeurceramsoc.2006.05.063 <b>I.F.1.562</b>
<b>14</b>	<b>2007</b>	<b>G. Lusvardi, G. Malavasi,<sup>§</sup> L. Menabue, M.C. Menziani, A. Pedone, U. Segre</b> Density of multicomponent silica-based potential bioglasses: quantitative structure-property relationships (QSPR) analysis. <i>Journal of European Ceramic Society</i> Vol. 27(2-3), pp. 499-504. ISSN: 0955-2219 doi:10.1016/j.jeurceramsoc.2006.04.067 <b>I.F.1.562</b>
<b>13</b>	<b>2006</b>	<b>G. Malavasi, A. Pedone, M.C. Menziani</b> Towards a quantitative rationalization of multicomponent glass properties by means of Molecular Dynamics simulations. <i>Molecular Simulation</i> Vol. 32(12-13), pp. 1045-1055. ISSN: 0892-7022(print) 1029-0435(online) doi:1080/08927020600932793 <b>I.F.1.084</b>
<b>12</b>	<b>2006</b>	<b>A. Pedone, G. Malavasi, M.C. Menziani, A.N. Cormack, U. Segre</b> A new self-consistent empirical inter-atomic potential model for oxides, silicates and silica based glasses. <i>Journal of Physical Chemistry B</i> Vol. 110(24), pp.11780-11795. ISSN: 1520-6106. doi:10.1021/jp0611018 <b>I.F. 4.115</b>
<b>11</b>	<b>2006</b>	<b>G. Malavasi, M.C. Menziani, A. Pedone, U. Segre</b> Void size distribution in MD-modelled silica glass structures. <i>Journal of Non-Crystalline Solids</i> Vol. 352(3), pp. 285-296. ISSN: 0022-3093. doi:10.1016/j.jnoncrysol.2005.11.022 <b>I.F. 1.362</b>
<b>10</b>	<b>2005</b>	<b>G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani, A. Pedone, U. Segre</b> A Computational Tool for the Prediction of Crystalline Phases Obtained from Controlled Crystallization of Glasses <i>Journal of Physical Chemistry B</i> Vol. 109(46), pp.21586-21592. ISSN: 1520-6106. doi: 10.1021/jp0546857 <b>I.F. 4.033</b>

9	2005	<p><b>E. Castellini, G. Lusvardi, G. Malavasi, L. Menabue</b></p> <p>Thermodynamic aspects of the adsorption of hexametaphosphate on kaolinite.  <i>Journal of Colloids and Interface Science</i> Vol. 292, pp. 322-329.  ISSN: 0021-9797. doi: 10.1016/j.jcis.2005.05.065 <b>I.F. 2.023</b></p>
8	2005	<p><b>L. Linati, G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani, P. Mustarelli, U. Segre</b></p> <p>Qualitative and Quantitative Structure-Property Analysis of Multicomponent Potential Bioglasses.  <i>Journal of Physical Chemistry B</i> Vol. 109(46), pp. 4989-4998.  ISSN: 1520-6106. doi: 10.1021/jp046631n <b>I.F. 4.033</b></p>
7	2004	<p><b>S. Braccini, C. Leonelli, G. Lusvardi, G. Malavasi, L. Menabue</b></p> <p>In vitro evaluation of zirconia nanopowders.  <i>Key Engineering Materials</i> Vol. 254-256, pp. 899-902.  ISSN: 1013-9826. <b>I.F. 0.278</b></p>
6	2004	<p><b>G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani, U. Segre</b></p> <p>Synthesis and in-vitro studies of phospho-silicate glasses doped with cerium and zinc oxides.  <i>Journal of Applied Biomaterials &amp; Biomechanics</i> Vol. 2, pp. 212.  ISSN (on line): 1724-6024. <b>no ISI, I.F. 0.944</b> (in 2009)</p>
5	2004	<p><b>G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani, U. Segre, M.M. Carnasciali, A. Ubaldini</b></p> <p>A combined experimental and computational approach to (Na<sub>2</sub>O)<sub>1-x</sub>CaO(ZnO)<sub>x</sub>2SiO<sub>2</sub> glasses characterization.  <i>Journal of Non-Crystalline Solids</i> Vol.345&amp;346, pp.710-714.  ISSN: 022-3093. doi: 10.1016/j.jnoncrysol.2004.08.153 <b>I.F. 1.433</b></p>
4	2003	<p><b>C. Leonelli, G. Lusvardi, G. Malavasi, L. Menabue, M. Tonelli</b></p> <p>Synthesis and characterization of cerium-doped glasses and in vitro evaluation of bioactivity.  <i>Journal of Non-Crystalline Solids</i> Vol. 316, pp. 198-216.  ISSN: 0022-3093. <b>I.F. 1.563</b></p>
3	2002	<p><b>G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani</b></p>



		Synthesis, characterization and molecular simulation of Na <sub>2</sub> O-CaO-SiO <sub>2</sub> -ZnO glasses. <i>Journal of Physical Chemistry B</i> Vol. 106, pp. 9753-9760. ISSN: 1520-6106. doi: 10.1021/jp020321s <b>I.F. 3.611</b>
<b>2</b>	<b>2002</b>	<b>G. Lusvardi, G. Malavasi, L. Menabue, M. Saladini</b> Removal of cadmium ion by means of synthetic hydroxyapatite. <i>Waste Management</i> Vol. 22, pp. 853-857. ISSN: 0956-053X. <b>I.F. 0.726</b>
<b>1</b>	<b>2002</b>	<b>G. Lusvardi, L. Menabue, G. Malavasi</b> In vitro characterization of phosphosilicate and silicate glasses doped with zinc oxide. <i>Materials Engineering</i> Vol. 13, pp. 79-88. ISSN: 1120-7302. <b>no ISI</b>

**I.F.= Impact Factor (ISI)**

**c = Corresponding Author**

**BOOK CHAPTERS (WITHOUT IF)**

N°	Years	Papers on books
11	2019	<p>Cipriani A, Lugli F, Frank G.A. Verheijen, Daniele Brunelli, Andrea Marchetti, Gianluca Malavasi</p> <p>Le analisi di fosforo ed elementi leggeri nei suoli</p> <p>In “Una sosta lungo la via Emilia, tra selve e paludi. La mansio di Forum Gallorum a Castelfranco Emilia” (eds. S. Campagnari, F. Foroni, D. Neri, Nuova Tipografia), Volume 12 di DEA - documenti ed evidenze di archeologia, pp. 207-210.</p> <p>ISBN 978-8897550-76-1</p>
10	2013	<p>F.E. Imrie, V. Aina, G. Lusvardi, G. Malavasi, I.R. Gibson, G. Cerrato, B. Annaz</p> <p>Synthesis and Characterisation of Strontium and Magnesium Co-Substituted Biphasic Calcium Phosphates</p> <p>In Key Engineering Materials Vol. 529-530 (Bioceramics 24), pp. 88-93.</p> <p>ISBN:978-3-03785-517-1(print) / 978-3-03795-323-5 (cd) /978-3-03813-437-4 (e-book)</p>
9	2012	<p>G. Malavasi, G. Lusvardi, L. Menabue, E. Ferrari, M. Saladini, V. Aina, G. Martra, L. Bergandi, D. Ghigo, F. Valetti</p> <p>Novel smart bio-nanomaterials: bioactive glasses containing metal nano-particles conjugated with molecules of biological interest</p> <p>In Proceedings of Nanotech 2012, TechConnect World, Vol. 3, pp. 114-117, Ed. by CRC Press (Taylor&amp;Francis Group) in 2012. ISBN 978-1-4665-6276-9, ISBN electronic:978-1-4665-6278-3</p>
8	2009	<p>V. Aina, L. Bergandi, F. Bonino, D. Ghigo, G. Lusvardi, G. Malavasi, L. Menabue, C. Morterra</p> <p>Bioactive phospho-silicate Glasses containing CaF<sub>2</sub>: bioactivity test in Simulated Body fluids and Behavior Towards Osteoblast Cells</p> <p>In Ceramic, Cells and Tissues, “Surface-Reactive Biomaterials as Scaffolds and Coating: interaction with cells and tissues” pp. 243-249. Faenza, May 19-22, 2009. Ed. by A. Ravaglioli, A. Krajewski, CNR (ITALY). ISBN 978-88-8080-111-5</p>
7	2008	<p>G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani</p>

		<p>A combined experimental-computational strategy for the design, synthesis and characterization of bioactive zinc-silicate glasses.</p> <p>In Key Engineering Materials Vol. 377 (Progress in Bioceramics), pp. 211-224. ISSN: 1013-9826 ISBN:0-87849-395-6 / 978-0-87849-395</p>
6	2007	<p>G. Lusvardi, G. Malavasi, L. Menabue, A.F. Gualtieri, C. Montanari</p> <p>Mineralogical and microstructural study of the phases developed during the hydration process of industrial cement mixtures.</p> <p>In Proceedings 10th ECERS Conference pp. 75-83 (2007). Ed. by J.G. Heinrich and C. Aneziris, Goller Verlag, Baden-Baden (Germany). ISBN: 3-87264-022-4</p>
5	2006	<p>G. Lusvardi, G. Malavasi, A. Pedone, L. Menabue, M.C. Menziani, V. Bolis, M. Bosetti, F. Boccafoschi, M. Cannas</p> <p>Cell configuration for focal adhesions in cells seeded onto Zinc-doped Silicate-Bioglass.</p> <p>In Ceramic, Cells and Tissues, “Materials for Scaffolding of Biologically engineered systems-Interface and Interactions on a Nanoscale” pp. 166-170. Faenza, May 23-27 2006. Ed. by A. Ravaglioli, A. Krajewski, CNR (ITALY). ISBN: 88-8080-071-x</p>
4	2004	<p>G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani, U. Segre</p> <p>CaO and ZnO in soda-silicate glasses: a molecular dynamics simulation study and experimental characterization.</p> <p>In Vincenzini P., Lami A. Advances in Science and Technology (Vol. 42, pp. 127-134). Faenza: Techna Group srl (ITALY). ISBN: 88-86538-45-6</p>
3	2003	<p>F. Bondioli, S. Braccini, C. Leonelli, G.C. Pellacani, G. Lusvardi, G. Malavasi</p> <p>In vitro bioactivity testing of ZrO<sub>2</sub> nanopowders prepared by MW-assisted hydrothermal synthesis.</p> <p>In Borisenko V.E., Gaponenko S.V., Gurin V.S. Physics, Chemistry and Application of Nanostructures: Reviews and short notes to Nanomeeting 2003 (pp. 338-341). SINGAPORE: World Scientific Publishing Co. Pte. Ltd. (SINGAPORE). ISBN: 981-238-381-6.</p>
2	2003	<p>G. Lusvardi, G. Malavasi, L. Menabue, M.C. Menziani</p> <p>Zinc addition to sodium-calcium-silicate bioglasses. Theoretical vs experimental results.</p>

		In Vincenzini P., Lami A. Advances in Science and Technology (Vol. 36, pp. 91-98). Faenza: Techna srl (ITALY). ISBN: 88-86538-38-3.
1	2003	G. Lusvardi, G. Malavasi, L. Menabue, M. Saladini Characterization and thermal behavior of fluoroapatite and Ti-alloy for orthopedic implants. In: P. Vincenzini, R. Barbucci. Advances in Science and Technology (Vol. 41, p. 187-194), Faenza: Techna Group srl (ITALY). ISBN: 88-86538-43-X