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CURRICULUM VITAE ET STUDIORUM: PROF. Gigliola Lusvardi

Personal data: Born in Reggio Emilia (RE), March 27, 1967

Present Position: Associate Professor in General and Inorganic Chemistry at the Department of Chemical and Geological Sciences of the University of Modena and Reggio Emilia since 1 November 2005.
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EDUCATION

- **July 1992** Degree in Chemistry at the University of Modena, with a thesis entitled "Reactivity and structural modifications of synthetic apatites, effect of cationic substituents" under the supervision of Prof. Ledi Menabue and Monica Saladini.
- **October 1996** PhD in Chemical Sciences (Parma, Modena e Ferrara consortium) with a thesis entitled "Reactivity of synthetic and biological hydroxyapatite and its applications: effect of the ions on the behaviour of synthetic and biological hydroxyapatite" under supervisor of Prof. Ledi Menabue

PREVIOUS POSITIONS AND FELLOSHIPS

- **From May 1996** to **November 2001** Technical collaborator at the Department of Chemistry of University of Modena and Reggio Emilia
- **From November 2001** to **November 2005** Associate Researcher (General and Inorganic Chemistry, CHIM03), at the Department of Chemistry of University of Modena and Reggio Emilia
- **From November 2005** to **present**, Associate Professor (03/CHEM-03- General and Inorganic Chemistry, Scientific Disciplinary Sector, CHEM-03/A General and Inorganic Chemistry, Academic field), at Department of Chemical and Geological Sciences, University of Modena and Reggio Emilia.
- **From 2017** qualified as Full Professor by ASN.

BRIEF DESCRIPTION OF THE RESEARCH ACTIVITY

The research activity of Prof. G. Lusvardi is mainly focused on the study of inorganic materials, encompassing their synthesis, functionalization, and comprehensive characterization from both qualitative and quantitative perspectives. Her research can be summarized in the following areas:

Synthesis, characterization, and functionalization of bioceramics

Management and valorization of hazardous fibrous waste

Development of materials for special applications

Synthesis, Characterization and Functionalization of Bioceramics (Key Research Focus)

A central and long-standing focus of Prof. Lusvardi's research is the development of bioceramics, which are ceramic materials specifically engineered for applications in medicine and tissue engineering.

Her work in this domain began with calcium phosphates—notably hydroxyapatite and fluoroapatite—investigating their chemical stability in the presence of both essential and toxic metal ions such as copper, zinc, cadmium, and lead. A significant portion of this research has been dedicated to exploring ion substitutions within the apatitic structure, particularly replacing calcium with strontium or magnesium, to develop composite materials with targeted clinical functionality.

She later extended her interest to bioactive glasses, including silicate and phosphosilicate-based systems, with a special focus on their apatite-forming ability at the interface with living tissue. These materials have been synthesized using various methods such as melt-quenching (MQGs), sol-gel processing (SGGs), and the development of mesoporous bioactive glasses (MBGs). These systems are often doped with inorganic therapeutic ions (TIIs) like copper, zinc, gallium, and cerium, to impart advanced biological functionalities.

Additionally, Prof. Lusvardi has investigated the functionalization of these materials with metallic nanoparticles (e.g., gold, copper), bioactive organic molecules (e.g., amino acids, polyphenol derivatives, drugs), and the development of tailored meso- and nanostructures for applications such as scaffolds, coatings, and drug delivery systems.

All these hybrid materials have been systematically tested in simulated physiological environments to evaluate their potential for regenerating both hard and soft tissues. A distinguishing feature of her research is the capacity to synergistically enhance the bioactivity of these materials while endowing them with additional properties—such as antibacterial, anti-inflammatory, antioxidant, or anticancer effects—thereby creating innovative solutions for advanced biomedical applications.

Management and Valorization of Hazardous Fibrous Waste

Another significant area of Prof. Lusvardi's work involves the treatment and reuse of hazardous fibrous waste, which presents both environmental and regulatory challenges due to its classification and impact on public health.

Her research explores innovative approaches for the crystallochemical transformation of this waste into inert and stable materials, which can be repurposed and certified as End-of-Waste (EoW) for reintegration into industrial processes. Specifically, she has focused on incorporating these recycled materials into ceramic mixtures for porcelain stoneware, with

formulations varying in composition and undergoing extensive mineralogical, morphological, compositional, and rheological analysis.

This line of research is conducted in compliance with REACH and CLP regulations, adopting the "no data, no market" principle to ensure safety for users and regulatory conformity. It also contributes meaningfully to the circular economy, representing a key opportunity in terms of sustainable development, reduced reliance on raw material imports, energy efficiency, and improved waste management strategies.

Materials for Special Applications

Prof. Lusvardi has also undertaken research into the development of silicate-based materials for advanced sensor technologies, particularly for detecting analytes in food matrices. These devices consist of sol-gel-derived silicate matrices embedded with gold or copper nanoparticles, which impart selective electrocatalytic properties useful for sugar detection.

An innovative aspect of this work includes the use of new siloxane derivatives, synthesized via low-impact, eco-friendly routes using low-cost raw materials such as silica. The expected outcomes are not only applicable to sensors but also transferable to other technological fields.

In addition, her studies encompass the synthesis of photoluminescent inorganic pigments, especially those based on strontium aluminates doped with europium and dysprosium, tailored to produce long-lasting luminescent effects. The research includes optimization of their chemical-physical characteristics to achieve desired performance.

Prof. Lusvardi has also contributed to the field of water treatment technologies, focusing on titanium oxide and silver nanoparticle-based systems, assessing their effectiveness and potential scalability.

Experimental Techniques

Her research employs a broad range of advanced experimental techniques, including:

X-ray Powder Diffraction (XRD) with Rietveld refinement

Scanning Electron Microscopy (SEM)

Transmission Electron Microscopy (TEM)

Atomic Force Microscopy (AFM)

UV/Vis Spectroscopy

ICP Spectroscopy

Thermal Analysis

MAJOR COLLABORATIONS

- Dipartimento di Scienze Chimiche e Geologiche, Unimore (Prof G.Malavasi, M.C.Menziani, A.Pedone, L.Tassi, A.Zambon)
- Dipartimento di Scienze e Vita, Unimore (Prof M.Rossi, Prof F.Pellati, Dott. S.Raimondi, Prof A. Amaretti)
- Dipartimento di Scienze Mediche e Chirurgiche Materno-Infantili e dell'Adulto, Unimore (Prof. U.Chiarini, Prof.A.Grande, Prof .A.Anesi, Dott. R.Salvatori)
- Dipartimento di Dipartimento di Chimica & Centro Interdipartimentale, "Nanostructured Interfaces and Surfaces" – NIS, Unito (Prof. G.Cerrato)
- Dipartimento di Scienze della Salute, UPO, (Prof Lia Rimondini, Dott. A.Cochis)
- University of Erlangen-Nuremberg-Germany (Prof. Dr.-Ing. habil. Aldo R. Boccaccini)
- Universidad Complutense Madrid, Spain (Prof. A. Salinas, M.Vallet-Regi)
- University of Surrey, Guildford, UK (Prof D. Carta)

FUNDING AND PROJECTS

Assigned on the basis of the peer external reviewing

- Partecipant to Progetto finalizzato CNR/MSTA II ,2000 sottoprogetto Biomateriali, National Coordinator Prof. Rolando Barbucci, "Rivestimenti innovativi a base di titanio e di apatite fluorurata per impianti ortopedici" Local Coordinator Prof. Arturo Pizzoferrato

- Partecipant to Progetto di ricerca industriale, 2002 “Determinazione quantitativa mediante metodo Rietveld delle fasi mineralogiche in una miscela cementizia durante le prime fasi d’idratazione”, responsabile del progetto Prof. Ledi Menabue, (15000 €)

- Partecipant to PRIN01 (MIUR-UniMoRe; Cofin01) “Sintesi di nanoparticelle assistite da microonde (MW)” National Coordinator Prof. G.C. Pellacani. Sub-unità di ricerca di Modena “Nanomateriali come biomateriali”. Local Coordinator Prof L. Menabue (44000 €)

- Partecipant to PRIN03 (MIUR-UniMoRe; Cofin03) “L'interfaccia fra meteriali a base di silice e biomolecole e/o modelli cellulari” National Coordinator Prof. C. Morterra. Unità di Ricerca di Modena “Sintesi, caratterizzazione, reattività all'interfaccia di vetri a base di silice, approccio sperimentale e computazionale”. Local Coordinator Prof L.Menabue (53600 €)

- Partecipant to PRIN06 (MIUR-UniMoRe; Cofin06) “Fenomeni d'interfaccia in materiali nanostrutturati biocompatibili a base di silice posti a contatto con sistemi biologici”, National Coordinator Prof. C. Morterra. Unità di Ricerca di Modena “Studio sperimentale e computazionale dell'interfaccia fluido biologico-biovetro” Local Coordinator Prof L. Menabue (36350 €)

- Responsable of Contributo per la Ricerca Scientifica e Tecnologica “Materiali per teranostica, progettazione e sintesi di sistemi contenenti nanoparticelle e molecole di interesse biologico,” (Fondazione di Vignola, Co-finanziamento 26000 €)

- Responsable of FAR2015 Dipartimentale “Sviluppo di materiali a base silicatica per applicazioni sensoristiche” (6296,3 €)

- •Partecipant to Progetto ATOMO, Coordinator Prof T. Manfredini (Intermech-UNIMORE), Local coordinator Prof. L.Menabue (Intermech-UNIMORE), “Hybrid press-forming: innovativa tecnologia per la realizzazione di parti di classe A per l’industria automotive, in materiale composito a matrice termoindurente (Press PrePreg forming) e amatrice termoplastica (innovativo RTM con resine termoplastiche) (23951 €)
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- Partecipant to FAR2016 Interdipartimentale, coordinator Prof A.Gualtieri, Fibre potential toxicity Index (FPTI). A quantitative model to evaluate the toxicity and pathogenicity of mineral fibres, including asbestos (70000 €)
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- Partecipant to PRIN, local coordinator, Prof A.Gualtieri, ” FIBRES: a multidisciplinary mineralogical, crystal-chemical and biological project to amend the paradigm of toxicity and cancerogenicity of mineral fibres”(449000 €)
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- Responsable of Progetto Ministero Ambiente Tutela Territorio Mare “MINISTERO AMBIENTE TUTELA TERRITORIO MARE " Tecnologia di trattamento di rifiuti contenenti amianto (RCA) e riciclo per la produzione di piastrelle ceramiche di grande formato, nell’ottica di una economia circolare (125000 €)

Research Contracts:

- 2011 “Valutazione della sicurezza chimica di materie prime e prodotti finiti” Saint Gobain PCC ITALIA S.p.A, 4000 €
- 2012 Valutazione delle sicurezza chimica di materie prime” Saint Gobain PCC ITALIA S.p.A, 1000 €
- 2012 “Materiali nanostrutturati per applicazioni ambientali” Barchemicals s.r.l., 4000 €
- 2013 “Studio e caratterizzazioni di materiali per applicazioni fotoluminescenti” Brightmaterials, s.r.l., 6250 €
- 2014 “Caratterizzazione di materiali fotoluminescenti” Brightmaterials s.r.l., 3500 €
- 2015 “Studio morfologico di pigmenti”Sicer S.p.A, 1500 €
- 2015 “Studio e caratterizzazione di materiali vetrosi destinati al trattamento dell’acqua”, Barchemicals s.r.l., 2500 €
- 2016 “Studio e caratterizzazione di materiali per applicazioni speciali”, Emilsider Meccanica SPA, 2500 €
- 2016, “Studio morfologico di pigmenti”, Bluenco s.r.l., 500 €
- 2017 “Risultato analisi quali-quantitativa di un rifiuto (CER 190305) proveniente da un impianto di inertizzazione RA.RI per identificare e quantificare l’ossido di Nichel (NiO) in forma cristallina. RA.RI. 1000 €
- 2018 “Optimization of the production process of films based on tobacco dust”, Philips Morris, 42840 €

TEACHING ACTIVITIES

- a.a. 1992/1993, 1993/1994, 1994/1995, 1995/1996, teacher of “Esercitazioni di Stechiometria" (Diploma Universitario in Ingegneria Meccanica Facoltà di Ingegneria dell'Università di Modena e Reggio Emilia)
- a.a. 1996/1997, 1997/1998, 1998/1999,1999/2000, 2000/2001, teaching activity as an expert in the subject for the SSD CHIM 03
- a.a 2001/2002, 2002/2003, 2003/2004 teacher of “Laboratorio di Chimica Inorganica I” (C.L. Chimica)
- a.a. 2001/2002, 2002/2003, 2003/2004 teacher of “Stechiometria” (C.L. Scienze Biologiche)
- a.a. 2004/2005, 2005/2006 teacher of “Laboratorio di Chimica dei Materiali” (C.L. Chimica)
- a.a. 2004/2005, 2005/2006, 2006/2007, 2007/2008 teacher of “Chimica Generale” (C.L. Scienze Geologiche, Scienze Naturali e Scienze per l’Ambiente e Territorio)
- a.a. 2004/2005, 2005/2006, 2006/2007, 2007/2008 teacher of “Cristallochimica” (C.L. di Chimica)
- a.a. 2008/2009 – 2018 teacher of “Chimica Generale” (CL. Scienze Geologiche) “Valutazione del rischio chimico nel laboratorio e nell’industria” (C.L.Chimica).
- a.a. 2008/2009 – present teacher of “Strutturistica Applicata” (C.L.Chimica).
- a.a. 2019– present teacher of “Chimica Inorganica I” (C.L.Chimica).
- a.a.2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006, 2006/2007, 2007/2008: teacher, thesis relator, partecipant to the enabling commission for Scuola di Specializzazione per l’Istruzione Secondaria (SSIS), A013, A060, A059
- a.a. 2005/2006: teacher, thesis relator, partecipant to the enabling commission for Corsi Abilitanti Speciali ex Legge 143/04, A013, A060, A059
- a.a 2011/2012: teacher, thesis relator, president of the enabling commission for Tirocini Formativi Attivi (TFA), A013
- a.a 2013/2014: teacher, thesis relator, president of the enabling commission for Percorsi Abilitanti Speciali (PAS) A013, A012, C240
- a.a 2014/2015: a.a 2011/2012: teacher, thesis relator, president of the enabling commission for Tirocini Formativi Attivi (TFA), A013, A012
- a.a. 2011/2012, 2012/2013, 2013/2014, 2014/2015: teacher and member of council of II level Master “Gestione delle sostanze chimiche – REACH e CLP”
- Teacher of SicurMore
- Teacher of Emtask
- Member of “Tutor commission” of CdS of Chemistry course
- Relator of several thesis for students of Chemistry degree

SUPERVISION OF PhD STUDENTS AND POSTDOCTORAL FELLOWS

- from 2017 Supervisor of Ph.D. Student Dr.ssa Maria Ligabue
- from 2021 Supervisor of Ph.D. Student Dr.ssa Francesca Fraulini

ACADEMIC DUTIES

- Member of “Commissione RAMAQ Dipartimento di Scienze Chimiche e Geologiche”
- Member of “Commissione didattica di Ateneo”
- Member of council of PhD course “Models and Methods for Material and Environmental Sciences"

NATIONAL SCIENTIFIC ENABLING (ASN)

- April 2017**:** enabling of Full professor of General and Inorganic Chemistry, (CHIM03/03-B1)

MEMBERSHIPS AND APPOINTMENTS

- Member of the Doctorate School "Modellistica, Simulazione Computazionale e Caratterizzazione Multiscala per le Scienze dei Materiali e della Vita " dell'Università di Modena e Reggio Emilia., renamed from 2013 "Models and Methods for Material and Environmental Sciences";
- Member of the Division of Inorganic Chemistry of the Italian Chemical Society (SCI)
- Member of the Interuniversity Consortium INSTM
- Member of Spanish and European Network of Excellence for the Prevention and Treatment of Osteoporotic Fractures, “Ageing” (www.agening.net).
- Member of Centro di Ricerca Interdipartimentale sulla Sicurezza e Prevenzione dei Rischi” (CRIS) dell’Università degli studi di Modena e Reggio Emilia.

ORGANISATION OF SCIENTIFIC MEETINGS AND SCHOOLS

- Member of the Editorial Board and Guest Editor of Materials
- Member of Nanomed Platform (Unimore)
- Member of COST Action Tenet

ACTIVITIES IN REFERRED SCIENTIFIC JOURNALS

- Reviewer for Mater Chem, J. Non-Cryst. Solids, Acta Biomat., J. of Phys. Chem., J.Am.Ceram. Society, Appl.Surf.Scie. Adv Powder Techno, Mat Sci & Eng C, Colloids and Surfaces B: Biointerfaces, Bioactive Materials, Mat. Chem. Phys., Colloids and Surfaces A: Physicochemical and Engineering Aspects, Surfaces & Coatings Technology, Construction and Building Materials, Frontiers, Scientific Reports
- Reviewer per Talent Research
- Reviewer for PON and FSC
- Reviewer for DFG, Deutsche Forschungsgemeinschaft (German Research Foundation)

OTHER ACTIVITIES

- REACH referent of Emilia Romagna
- Working group for Chemistry test, coordinator Prof.S.Zappoli (in collaboration with Conscienze-Cisia)
- Dissemination activities for Scientific Degrees Project

SELECTED INVITED PRESENTATIONS

- “Per una cultura della prevenzione del rischio sismico in Italia”, 12 October 2012, Modena
- NCM12 – 12th International Conference on the Structure of Non Crystalline Materials, 7-12 July 2013, Riva del Garda (TN)
- NIS colloquium "Advances in biomaterials: combining simulations and experiments", 28-29 November 2013; Turin
- III International Symposium on Nanoparticles/Nanomaterials and Applications 22-25 January 2018, Lisbona
- 3rd BioMaH, Biomaterials and Novel Technologies for Healthcare, 13-16 October 2022, Rome

OTHER INFORMATIONS

Prof G.Lusvardi has published **124** products (Iris/Unimore) on international journal, books, patent.

98 publications with IF, **1** patent, **17** chapters in book with ISBN or ISSN, **8** proceedings or extended abstract

Scopus (95 products) h index = 33 citations = 3275

Web of Science (96 products) h index = 31 citations = 2961

Google scholar h index = 37 citations = 4055

LIST OF SCIENTIFIC PUBLICATIONS ON INTERNATIONAL JOURNALS WITH IF

1. Cavazzoli C. Salvatori R., Anesi A., Zambon A., Lusvardi g. (2026) *Dual-functional cerium-containing mesoporous bioactive glasses for drug delivery,* **Ceramics International**, 10.1016/j.ceramint.2025.12.397
2. Salvatori R.; Anesi A.; Cavazzoli C.; Zambon A.; Lusvardi G. (2025) *Cytocompatibility of mesoporous bioactive glasses doped with cerium and loaded with polyphenols*, **Journal of American Ceramic Society,** 10.1111/jace.20395
3. Cavazzoli C.; Fraulini F.; Nicolini V.; Zardi P.; Busi E.; Raimondi S.; Zambon A.; Lusvardi G. (2025). *Double-ion doped mesoporous glasses: Studies on stability, antibacterial and antioxidant properties, and bioactivity*, **Surface and Interface**, 10.1016/j.surfin.2025.106954.
4. Salvatori R.; Anesi A.; Chiarini L.; Di Bartolomeo M.; Pellacani A.; Cavazzoli C.; Zambon A.; Lusvardi G. (2025), *Enhanced bone regeneration with cerium-doped bioactive glasses: In vitro and in vivo study*, **Journal of Applied Biomaterials & functional Materials**.10.1177/22808000251326794.
5. Iodchik A.; Lusvardi G.; Zambon A.; Soo Lee P.; Hans-Peter Wiesmann B., Anne; Hintze V. (2025), *Gelatin/Cerium-Doped Bioactive Glass Composites for Enhancing Cellular Functions of Human Mesenchymal Stem Cells (hBMSCs)*, **Gels**, 10.3390/gels11060425
6. Cavazzoli C.; Di Pasquale R.; Moghaddam Z.; Zhao H.; Hoxha, Agron Lewendon, L.; Felipe-Sotelo M.; Crean C.; Zambon A.; Lusvardi G.; Merino-Gutierrez J.; Carta D. (2025), *Polyphosphate coacervate gels for manufacturing of manganese loaded glass powders and fibres: structural, cytocompatibility and surface bioactivity study*, **Journal of Materials Chemistry B**, 10.1039/d5tb00454c.
7. Giordana A.; Cavazzoli C; Fraulini F.; Zardi P.; Zambon A.; Cerrato G.; Lusvardi G. (2025), *Evaluation of the Properties of Bioactive Mesoporous Glasses Doped with Cerium and Loaded with Polyphenols*, **Materials**, 10.3390/ma18030709
8. Abati M, Contreras J A T, Rigamonti L, Carrozza D, Lusvardi G, Brauer D, Malavasi G, (2024). *Assessing Mn as an antioxidant agent in bioactive glasses by quantification of catalase and superoxide dismutase enzymatic mimetic activities,* **Ceramics International***,* 10.1016/j.ceramint.2023.10.091
9. Menshikh K., Reddy A, K; Cochis, A.; Fraulini F, Zambon A., Lusvardi G., Rimondini L. (2024) *Bifunctional mesoporous glasses for bone tissue engineering: Biological effects of doping with cerium and polyphenols in 2D and 3D in vitro models*, **Biomaterials and Biosystem,** 10.1016/j.bbiosy.2024.100095
10. Lusvardi, G.; Fraulini, F.; Cavazzoli, C.; Zambon, A., (2024), *Evaluation of the behaviour of hydrogels containing mesoporous glasses doped with cerium and loaded with polyphenols,* **Ceramics International***,* 10.1016/j.ceramint.2024.06.213
11. Caroli C.; Baron, G.; Cappellucci G.; Brighenti, V., Della Vedova L.; Fraulini F.; Oliaro-Bosso S.; Alessandrini A.; Zambon A., Lusvardi G., Aldini G., Biagi M., Corsi L., Pellati F. (2024), *Extraction, purification and in vitro assessment of the antioxidant and anti-inflammatory activity of policosanols from non-psychoactive Cannabis sativa L.*, **Heliyon**, 10.1016/j.heliyon.2024.e30291

12. Zambon A, Fraulini F, Raimondi S, Lusvardi G (2023), *Dual loaded Ce-MBGs with bioactivity, antioxidant and antibacterial properties,* **Ceramics International***,* 10.1016/j.ceramint.2023.06.295.

13. Fraulini F, Raimondi S, Candeliere F, Ranieri R, Zambon A, Lusvardi G (2023), *Ce-MBGs Loaded with Gentamicin: Characterization and In Vitro Evaluation,* **Journal of Functional Biomaterials,** 10.3390/jfb14030129.

14. Giordana A, Malandrino M, Zambon A, Lusvardi G, Operti L, Cerrato G. (2023), *Biostimulants derived from organic urban wastes and biomasses: An innovative approach,* **Frontiers in Chemistry***,* 10.3389/fchem.2023.969865

15. Zambon, A., Fraulini, F.; Lusvardi, G. (2022), *Loading with Biomolecules modulates the antioxidant activity of cerium-doped Bioactive Glasses*, **ACS Biomaterials Science & Engineering**, 10.1021/acsbiomaterials.2c00283

16. Brunelli, A; Foscari A; Base G; Lusvardi G; Bettiola C.; Semenzin E; Marcomini A; Badetti E (2022), *Colloidal stability classification of TiO_2 nanoparticles in artificial and in natural waters by cluster analysis and a global stability index: Influence of standard and natural colloidal particle*, **Science of The Total Environment**, http://dx.doi.org/10.1016/j.scitotenv.2022.154658

17. Ligabue, M.L; Saburit, A.; Lusvardi, G.; Malferrari D.; Garcia-Ten, J.; Monfort, E. (2022), *Innovative use of thermally treated cement-asbestos in the production of foaming materials: Effect of composition, foaming agent, temperature and reaction time,* **Construction and building materials**, https://doi.org/10.1016/j.conbuildmat.2022.127517

18. Raimondi, S.; Zambon, A.; Ranieri, R.; Fraulini, F.; Amaretti, A.; Rossi, M.; Lusvardi, G. (2022), *Investigation on the antimicrobial properties of cerium-doped bioactive glasses*, **Journal of Biomedical Material Research-part A,** 1, doi.org/10.1002/jbm.a.37289

19. Zambon, A., Malavasi, G.; Pallini A.; Fraulini, F.; Lusvardi, G. (2021), *Cerium containing bioactive glasses-A review*, **ACS Biomaterials Science & Engineering,** 1, doi.org/10.1021/acsbiomaterials.1c00414

20. Malavasi, G., Lusvardi, G., (2020), *Composition and morphology effects on catalase mimetic activity of potential bioactive glasses,* **Ceramics International,** 46, http://dx.doi.org/10.1016/j.ceramint.2020.07.067

21. Anesi, A.; Malavasi, G.; Chiarini, L.; Salvatori, R.; Lusvardi, G. (2020), *Cell Proliferation to Evaluate Preliminarily the Presence of Enduring Self-Regenerative Antioxidant Activity in Cerium Doped Bioactive Glasses,* **Materials,** 13(10), http://dx.doi.org/10.3390/ma12193267

22. Ligabue, M. L., Gualtieri, A. F., Lassinantti Gualtieri, M., Malferrari, D., Lusvardi, G. (2020). *Recycling of thermally treated cement-asbestos for the production of porcelain stoneware slabs*. **Journal of Cleaner Production**, *247*. https://doi.org/10.1016/j.jclepro.2019.119084

23. Gualtieri, A. F., Lusvardi, G., Pedone, A., Di Giuseppe, D., Zoboli, A., Mucci, A., Lassinantti Gualtieri, M. (2019). *Structure Model and Toxicity of the Product of Biodissolution of Chrysotile Asbestos in the Lungs*. **Chemical Research in Toxicology**, *32*(10). https://doi.org/10.1021/acs.chemrestox.9b00220

24. Nicolini, V., Malavasi, G., Lusvardi, G., Zambon, A., Benedetti, F., Cerrato, G., Luches, P. (2019). *Mesoporous bioactive glasses doped with cerium: Investigation*

over enzymatic-like mimetic activities and bioactivity. **Ceramics International**, *45*(16). https://doi.org/10.1016/j.ceramint.2019.07.080

25. Malavasi, G., Salvatori, R., Zambon, A., Lusvardi, G., Rigamonti, L., Chiarini, L., & Anesi, A. (2019). *Cytocompatibility of potential bioactive cerium-doped glasses based on 45S5*. **Materials**, *12*(4). https://doi.org/10.3390/ma12040594

26. Varini, E., Sánchez-Salcedo, S., Malavasi, G., Lusvardi, G., Vallet-Regí, M., & Salinas, A. J. (2019). *Cerium (III) and (IV) containing mesoporous glasses/alginate beads for bone regeneration: Bioactivity, biocompatibility and reactive oxygen species activity.* **Materials Science and Engineering C**, *105*. https://doi.org/10.1016/j.msec.2019.109971

27. Gualtieri, A. F., Lusvardi, G., Zoboli, A., Di Giuseppe, D., & Lassinantti Gualtieri, M. (2019). *Biodurability and release of metals during the dissolution of chrysotile, crocidolite and fibrous erionite*. **Environmental Research**, *171*. https://doi.org/10.1016/j.envres.2019.01.011

28. Silvestri, A., Ligabue, M. L., Malavasi, G., & Lusvardi, G. (2019). *Preparation and luminescence properties of $Ba_5Si_8O_{21}$ long persistent phosphors doped with rare-earth elements*. **Materials,** *12*(1). https://doi.org/10.3390/ma12010183

29. Ligabue, M. L., Terzi, F., Zanardi, C., Lusvardi, G. (2019). *One-pot sonocatalyzed synthesis of sol–gel graphite electrodes containing gold nanoparticles for application in amperometric sensing.* **Journal of Materials Science,** *54*(13). https://doi.org/10.1007/s10853-019-03580-y

30. Lusvardi, G., Stabellini, F. S., Salvatori, R. (2019). *P_2O_5-free cerium containing glasses: Bioactivity and cytocompatibility evaluation*. **Materials**, *12*(19). https://doi.org/10.3390/ma12193267

31. Forte, L., Torricelli, P., Bonvicini, F., Boanini, E., Gentilomi, G. A., Lusvardi, G., Bigi, A. (2018). *Biomimetic fabrication of antibacterial calcium phosphates mediated by polydopamine*. **Journal of Inorganic Biochemistry**, *178*. https://doi.org/10.1016/j.jinorgbio.2017.10.004

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