

CURRICULUM VITAE

PERSONAL INFORMATION

Name, Surname	Valentina Biasini
Address	Institute of Science, Technology and Sustainability for Ceramics (ISSMC CNR) Via Granarolo, 64 – 48018 Faenza - Italy
Telephone	+39 0546 699713
E-mail	valentina.biasini@cnr.it

WORK EXPERIENCE

Dates	From 2021 – today
Name and address of employer	Institute of Science, Technology and Sustainability for Ceramics (ISSMC CNR) Via Granarolo, 64 – 48018 Faenza - Italy
Occupation or position held	Senior Technologist
Main activities and responsibilities	• Quality Manager of CNR ISSMC • Italian principal investigator of the bilateral project “Thulium doped sesquioxide transparent ceramics for high energy class laser in nano second regime at cryogenic temperature” between CNR and CAS (Czech Republic). Duration: 01/01/2019 – 31/12/2022. • Principal Investigator of Phase 1 of the project “CeMiLAP² - Ceramiche Microstrutturate per Laser di Alta Potenza: strutturazione in 2-D”, funded by the Ministry of Defence as part of the 2020 PNRM, 17/01/2020 – 23/11/2021 • Co-founder and CTO of the innovative start-up Zenit Smart Polycrystals srl. Duration: 20/09/2021 – 29/07/2024. • Inventor and main contact person of the international patent “Lithography-based process for the production of transparent ceramics and transparent ceramics thus obtained,” no. 102020000005998 filed on 20/03/2020. Extended with international procedure no. PCT/EP2021/057169 of 03/22/2021. Exclusive license agreement for consideration (with right of sublicense) and purchase option granted to Zenit Smart Polycrystals srl, on 12/17/2021. • Scientific Expert of the Ministry of Economic Development, responsible for the evaluation of industrial research and experimental development projects, 2017 - today • Responsible for CNR ISSMC's scientific dissemination activities and collaborations with schools, 2011 – today • Responsible for CNR ISSMC for the activities covered by the agreement between CNR and ENEA for the establishment of the “Network Italiano de’ Il linguaggio della Ricerca – LdR”, 05/02/2020 - today • Head of the ISSMC Unit for the CNR Project “Change The Game: Giocare per prepararsi ad una società piu’ sostenibile –CHANGEGAME” – ProgettidiRicerca@CNR, 2022- today • Responsible for CNR ISSMC for the activities of the agreement between CNR and ENEA for the establishment of the “Network Italiano de’ Il linguaggio della Ricerca - LdR”, 2020 - today Head of the ISSMC Unit for the Eu Project RIS Internship programme: broadening University-Business Cooperation - RIS-Internship, 2023 - 24 • Member of the Technical Scientific Committee of the regional project for a higher technical education and training (IFTS) course “Tecnico di industrializzazione del prodotto e del processo per valorizzare l'eccellenza della ceramica Emiliano-Romagnola”. Duration: 20/06/2022- 31/12/2022. • Scientific supervisor of activities related to the Scientific Collaboration and Non-Disclosure Agreement between CNR ISTEC and HiLASE Centre, 2017 – 2021.

Dates	From 2014 – 2020
Name and address of employer	Institute of Science and Technology for Ceramics (CNR ISTEC) Via Granarolo, 64 – 48018 Faenza - Italy
Occupation or position held	Technologist
Main activities and responsibilities	· Head of the Transparent Ceramics research group. · Principal investigator of the Italy – Israel Joint Research Project “T-SC Transparent spinel-based ceramic materials for strategic aerospace applications” funded under the MOU between the Italian Ministry of Defense and The Ministry of Defense of the State of Israel. Duration 23/01/2017 – 22/07/2018. · Principal investigator of the bilateral project “Preparation and Characterization of Solid State laser Materials and its Application in Solar Pumped laser” funded under the scientific cooperation agreement between CNR and NRC (Egypt). Duration: 01/01/2016 – 31/12/2017. · Principal investigator of the “CeMiLAP - Ceramiche microstrutturate trasparenti per applicazioni laser di alta potenza: sviluppo e validazione” funded by the Italian Ministry of Defence under the PNRM program (24/09/2015 - feb .2017) · Work package leader of the “EUCERMAT - EUropean CERamic MATerials” project funded under the Erasmus+ Programme, Key Action 2, and coordinated by the University of Limoges (France). Duration 2015 – 2018. · Quality Manager of CNR ISTEC. · Preparation and coordination of research projects (both national and international). · Presentation of results on conferences and workshops, writing and submission of scientific articles. Peer review of scientific papers.

Dates	From August 1996 – December 2013
Name and address of employer	Institute of Science and Technology for Ceramics (CNR ISTEC) Via Granarolo, 64 – 48018 Faenza - Italy
Occupation or position held	Researcher
Main activities and responsibilities	· Team member of the structural ceramics research group. · Coordinator of National contracts. · Quality Manager of CNR ISTEC. Presentation of results on conferences and workshops, writing and submission of scientific articles. Peer review of scientific papers. Preparation and coordination of research projects (both national and international).

Dates	01/11/1989 – 31/07/1996
Occupation or position held	Temporary researcher at CNR-Research Institute for Ceramic Technology, Faenza -I
Main activities and responsibilities	· Team member of the structural ceramics research group. · Head of the Electron Microscopy Laboratory. · Coordinator of national and international research projects and contracts.
Name and address of employer	CNR – Italian National Research Council

Dates	01/11/1988 – 31/10/1989
Occupation or position held	Research fellow

Main activities and responsibilities

- Member of the research team on production process, microstructural and mechanical characterisation of Al₂O₃-ZrO₂ advanced ceramic composites. Fellowship funded by Istituto Guido Donegani, Montecatini Edison S.p.A.
- Member of the research team on the feasibility study for the production of hot pressed silicon nitride composites with whiskers of silicon carbide. Fellowship funded by Agenzia Polo Ceramico Soc. cons. a r.l.
- Member of the research team on the characterization of advanced ceramic materials in particular morphological and compositional analysis of raw, green and bulk materials. Fellowship funded by CNR.

Name and address of employer

CNR IRTEC, Research Institute for Ceramic Technology
via Granarolo, 64 – 48018 Faenza - Italy

EDUCATION AND TRAINING

Dates	1986
Name and type of organisation providing education and training	University of Bologna – Italy
Principal subjects, occupational skills covered	Material science
Title of qualification awarded	Degree in Physics
Level in National classification	Master degree

RESEARCH ACTIVITIES

Research sectors

Research and development of transparent ceramics, Advanced ceramics processing, Thermomechanical properties, Sintering, Microstructural characterisation.

Recent publications

- J. Hostaša, V. Jambunathan, D. Chernomorets, A. Piancastelli, C. Zanelli, G. Chayran, F. Picelli, M. Smrž, V. Biasini, Tomáš. Mocek, L. Esposito, Effect of Ga³⁺/Sc³⁺ on Yb³⁺ emission in mixed YAG at cryogenic temperatures, Optical Materials: X (2024)
<https://doi.org/10.1016/j.omx.2024.100305>
- Andrea Ienco, Bruno Tiribilli, Chiara D'Errico, Armida Torreggiani, Valentina Biasini, Sabrina Gualtieri, Pietro Galizia, Sorting Materials using Programmable Lego® Robot: an Educational Activity to Promote Sustainability among Youngsters, New Perspectives in Science Education 2024, Conference Proceedings. DOI: 10.26352/I314_2384-9509 ISBN 979-12-80225-58-0 ISSN 2384-9509
- Picelli, Francesco, Jan Hostaša, Andreana Piancastelli, Valentina Biasini, Cesare Melandri, and Laura Esposito. 2024. "Beyond Scanning Electron Microscopy: Comprehensive Pore Analysis in Transparent Ceramics Using Optical Microscopy" Ceramics 7, no. 1: 401-410.
<https://doi.org/10.3390/ceramics7010025>
- Valentina BIASINI, Jan HOSTASA, Laura Esposito, Andreana PIANCASTELLI, Guido Toci, Martin SCHWENTENWEIN, Dominik Philipp BROUCZEK, Lithography-based process for the production of transparent ceramic bodies with at least two zones of different composition and transparent ceramic bodies thus obtained, US Patent App. 17/906,521, 2023.
<https://patents.google.com/patent/US20230138537A1/en>
- F. Picelli, V. Biasini, J. Hostaša, A. Piancastelli, L. Esposito, A useful approach to understand the origin of defects in transparent YAG ceramics, MRS Communications, vol. XX (2022) 1 – 6
<https://doi.org/10.1557/s43579-022-00240-2>

Faenza, 01/10/2025