

EUROPEAN CURRICULUM VITAE

PERSONAL INFORMATION

Name, Surname	ANDREANA PIANCASTELLI
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Website	www.issmc.cnr.it
Nationality	Italian
Place and Date of birth	Faenza, November 30 th 1964

WORK EXPERIENCE

Se dipendente CNR indicare:	N. MATRICOLA 42041
	QUALIFICA CTER
	LIVELLO IV

Dates (from – to)	1990 - today
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Name and address of employer	CNR ISTEC National Research Council of Italy – Institute of Science and Technology for Ceramics
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Type of business or sector	Transparent ceramics, biomaterials, Si ₃ N ₄ , Piezoelectric ceramics.
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Occupation or position held	Technician with permanent position
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Main activities and responsibilities	Responsible of the laboratories “Transparent Ceramics” and “Porosimetry and Specif Surface”. My work is focused on the preparation of transparent materials, their sintering and their characterization; characterizations analisys as mercury intrusion porosimetry and specific surface area measurements.
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Dates (from – to)	2006 – today
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Name and address of employer	CNR ISTEC National Research Council of Italy – Institute of Science and Technology for Ceramics
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Type of business or sector	Transparent ceramics
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Occupation or position held	Technician with permanent position
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Main activities and responsibilities	Samples preparation mainly by cold consolidation like die and isostatic pressure; their densification in furnace in high vacuum and their characterization by SEM and transmittance measurements. XRD measurements.
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Dates (from – to)	1988 - 2006
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Name and address of employer	CNR ISTEC National Research Council of Italy – Institute of Science and Technology for Ceramics
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Type of business or sector	Biomaterials
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Occupation or position held	Technician with permanent position
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Preparation of inert/bioactive ceramics;

Main activities and responsibilities	synthesis of hydroxyapatite, preparation of different doped bioactive glasses, characterization of the obtained materials by rheological tests, porosimetry analysis, SEM and Z potential measurements.
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**ISTRUZIONE E FORMAZIONE /
EDUCATION AND TRAINING**

Dates (from – to) Name and type of organisation providing education and training Principal subjects occupational skills covered Title of qualification awarded Level in National classification	1984-1985 Istituto Statale D'Arte per la Ceramica "G.Ballardini" Diploma di Maturità Artistica
In ordine di data /Dates (from – to) Name and type of organisation providing education and training Principal subjects occupational skills covered Title of qualification awarded Level in National classification	1982-83 Istituto Statale D'Arte per la Ceramica "G.Ballardini" Diploma di Perfezionamento delle Tecnologie Ceramiche Speciali
Dates (from – to) Name and type of organisation providing education and training Principal subjects occupational skills covered Title of qualification awarded Level in National classification	1979-81 Istituto Statale D'Arte per la Ceramica "G.Ballardini" Diploma di Maestro d'Arte

RESEARCH ACTIVITIES

Research sectors

- Transparent ceramics for high power lasers: YAG-based ceramics doped with active elements (Nd, Yb, Er, Pr)
- Transparent ceramics for protective windows (ALON, spinel MgAl_2O_4) with mechanical resistance even at high temperature.

ARTICLES

1. A.Volfi, L.Esposito, V.Biasini, A.Piancastelli, J.Hostasa ' Industrial potential of additive manufacturing of transparent ceramics: A review ' *Open Ceramics* 20 (2024) 100682.
2. S.Ortelli, M.Vespignani, I.Zanoni, M.Blosi, C.Vineis, A.Piancastelli, S.Albonetti, A.L.Costa 'Design of TiO_2 -Surfactin hybrid systems with multifunctional Properties ' *Molecules* 2023 28 (4) 1863.
3. F.Servadei, L.Zoli, P.Galizia, A.Piancastelli, D.Sciti 'Processing and characterization of ultra-high temperature ceramic matrix composites via water based slurry impregnation and polymer infiltration and pyrolysis' *Ceramics International* 49 (2023)1220-1229
4. F.Picelli, V.Biasini, J.Hostasa, A.Piancastelli, L.Esposito 'A useful approach to understand the origin of defects in transparent YAG ceramics' *MRS communications* 2022 Vol. XX 1-6.
5. C.Belviso, A.Piancastelli, M.Sturini, S.Belviso ' Synthesis of composite zeolite-layered double hydroxides using ultrasonic red mud' *Microporous and Mesoporous Materials* 299 (2020) 110108
6. S. Scialla, F. Carella, M. Dapporto, S. Sprio, A. Piancastelli, B. Palazzo, A. Adamiano, L. Degli Esposti, M. Iafisco and C. Piccirillo 'Mussell shell-derived Macroporous 3D scaffold : characterization and optimization study of a bioceramic from the circular economy' *Marine Drugs* 2020, 18, 309.
7. J. Hostasa, M. Schwentenwein, G. Toci, L. Esposito, D. Brouczech, A. Piancastelli, A. Pirri, B. Patrizi, M. Vannini, V. Biasini 'Transparent laser ceramics by stereolithography ' *Scripta Materialia* 187 (2020) 194-196.
8. G. Toci, J. Hostasa, B. Patrizi, V. Biasini, A. Pirri, A. Piancastelli, M. Vannini 'Fabrication and laser performances of $\text{Yb}:\text{Sc}_2\text{O}_3$ transparent ceramics from different combination of vacuum sintering and hot isostatic pressing conditions' *J. of European Ceramic Society* 40 (2020) 881-886.
9. Hostasa J. ; Cova F.; Piancastelli A.; Fasoli M.; Zanelli C.; Vedda A.; Biasini V. 'Fabrication and luminescence of Ce-doped GGAG transparent ceramics, effect of sintering parameters and additives' *Ceramic International* vol.45 (2019) 23283-23288
10. F.Miccio, R.Bendoni, A.Piancastelli, V.Medri, E.Landi 'Geopolymer composites for chemical looping combustion' *Fuel* 225(2018) 436-442.
11. R.Soldati, C.Zanelli, G.Guarini, A.Piancastelli, C.Melandri, S.Fazio, M.C. Bignozzi, M.Dondi ' Pore evolution and compaction behaviour of spray-dried bodies for porcelain stoneware slabs' *Journal of European Ceramic Society* 38 (2018) 4127-4136.
12. J.Hostasa, A.Piancastelli, G.Toci, M.Vannini, V.Biasini 'Transparent layered ceramics with structured Yb doping produced via tape casting ' *Optical Materials* 65 (2017) 21-27.
13. V.Medri, D.Sciti, D.Dalle Fabbriche, A. Piancastelli, E.Landi ' Ice templating of ZrB_2 -SiC systems ' *Ceramic International* 41 (2015) 10324-10330.
14. L.Esposito, A.Piancastelli, P. Miceli, S.Martelli ' A thermodynamic approach to obtaining transparent spinel (MgAl_2O_4) by hot pressing', *Journal of European Ceramic Society* 35 (2015) 651-661
15. L. Esposito, A. Piancastelli, Y. Bykov, S. Egorov, A. Ereemeev, "Microwave Sintering of $\text{Yb}:\text{YAG}$ Transparent Laser Ceramics", *Optical Materials*, 35 (2013)761-765
16. L. Esposito, A. Piancastelli and S. Martelli, "Production and characterization of transparent MgAl_2O_4 prepared by hot pressing ", *J. Eur.Ceram.Soc.*, 33 (2013) 737–747
17. J.Hostasa, L.Esposito, A.Piancastelli " Influence of Yb and Si content on the sintering and phase changes of $\text{Yb}:\text{YAG}$ laser ceramics." *J.Europ.Cer.Soc.* 32 2012, 2949-2956
18. J.Hostasa, L.Silvestroni, A.Piancastelli, D.Sciti, L.Esposito and D. Di Martino " Slip casting of a Si_3N_4 -based system ", *Int.J.Appl.Technol.* 9 [2] 246-258 2012
19. Laura Esposito, Thierry Epicier, Marina Serantoni, Andreana Piancastelli, Daniele Alderighi, Angela Pirri, Guido Toci, Matteo Vannini, Sergiu Anghel, Georges Boulon

- "Integrated analysis of non-linear loss mechanisms in Yb:YAG ceramics for lasers applications", *J.Europ.Cer.Soc.* 32(10) 2012, 2273-2281
20. Marina Serantoni, Andreana Piancastelli, Anna Luisa Costa, Laura Esposito "Improvements in the production of Yb:YAG transparent ceramic materials: Spray drying optimisation", *Optical Materials*, in press, doi:10.1016/j.optmat.2011.06.003
 21. D. Alderighi, A. Pirri, G. Toci, M. Vannini, L. Esposito, A. L. Costa, A. Piancastelli, M. Serantoni, "Characterization of Yb:YAG ceramics as laser media", *Optical Materials*, 33 2 2011, 205-210
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 23. A.L.Costa, M.Serantoni, M. Blosi, E.Mercadelli, L.Esposito, A. Piancastelli, A.Sanson "Microwave Assisted Synthesis of Yb:Y₂O₃ Based Materials for Laser Source Application" 2010 Advanced Engineering Materials, Vol.12 Issue3, 205-209.
 24. L. Esposito, A. Piancastelli, "Role of powder properties and shaping techniques on the formation of pore-free YAG materials", *Journal of the European Ceramic Society*, 29 2 2009 317-322
 25. A.Ravaglioli, A.Krajewski, G.Baldi, F.Tateo, L.Peruzzo and A.Piancastelli "Glass ceramic scaffolds for tissue engineering" *Advances in Applied Ceramics* N°5 Vol.107 pag 268-273 3 Luglio 2008.
 26. A.Ravaglioli, A.Krajewski, A.Piancastelli, G.Baldi, A.Barzanti, A.Antonini, M.Mazzocchi "A comparison among some different doped bioactive glasses tested in vitro for tissue engineering" Proc. 11th Meeting and Seminar on: Ceramics, Cells and Tissues; Faenza, October 2-5, 2007, p.258-262.
 27. A.Ravaglioli, A.Krajewski, A.Piancastelli, S.Tarlazzi, B.Fabbri, G.Ercolani, H.Du "Eggshells models for ceramic scaffolds" Proc. 10th Meeting and Seminar on: Ceramics, Cells and Tissues; Faenza, May 23-27, 2006, p.180-186.
 28. A.Sanson, A.Piancastelli, E.Roncari "Glass-ceramics sealants for solid oxide fuel cells" In: *European Fuel Cell Technology & Applications*, International Conference, CNR, Roma, 14-16 Dicembre 2005.
 29. A.Krajewski, A.Ravaglioli, G.C.Celotti, A.Piancastelli, M.Mazzocchi, B.Bacchini, L.Montanari, G.Zama, L.Piombi, M.Fini, R.Giardino "Mineral evolution of bone of partially-domesticated animals" Proc. 9th Meeting and Seminar on Ceramics, cells and Tissues, Faenza 28 Settembre-1 Ottobre 2004 pp.389-399
 30. L. Esposito, D. Sciti, A. Piancastelli, A. Bellosi, "Microstructure and properties of porous β -SiC templated from soft woods", *Journal of the European Ceramic Society*, 24 2 2004 533-540.
 31. A.Ravaglioli, A.Krajewski, A.Piancastelli, S.Datta, H.L.Du "Biologically inspired tissue engineering: suitabilized ceramic scaffolds" Proc. 9th Meeting and Seminar on Ceramics, cells and Tissues, Faenza 28 Settembre-1 Ottobre 2004 pp.158-165
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 33. F.Branda, B.Silvestri, G.Luciani, A.Costantini, A.Ravaglioli, A.Piancastelli, A.Krajewski "Bioactivity of RKPP and AP40 glassy materials" Proc. 8th Meeting and Seminar on Ceramics, Cells and Tissues, Faenza 18-21 Marzo 2003 pp.61-65.
 34. A.Rosengren, E.Pavlovic, S.Oscarsson, A.Krajewski, A.ravaglioli, A.Piancastelli "Plasma protein adsorption pattern on characterized ceramic biomaterials" *Biomaterials* 23, 2002, pp.1237-1247.
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40. A.Krajewski, A.Piancastelli, R.Malavolti "Albumin adhesion on ceramics and correlation with their Z-potential" Biomaterials 19, 1998 pp 637-641
41. C.Galassi, E.Roncari, R.Greenwood, A.Piancastelli "Characterization of alumina suspensions by electroacoustics" V° EURO-CERAMICS vol.1, Ed. D.Bortzmeyer, M.Boussuge, Th.Chartier, G.Fantozzi, G.Iozes, A.Rousset, Trans Tech Publication, 1997, pp.329-332.
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47. C.Capiani, A.Piancastelli, E.Rastelli, C.Galassi " Pressure casting of silicon nitride" Third EURO-CERAMICS vol.1, Ed. P.Duran, J.F.Fernandez, 1993, 543-548.
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50. A.Ravaglioli, A.Krajewski, A.Piancastelli, R.Martinetti "Physico-chemical characterization of Hydroxyapatite of unknown manufacture" in Bioceramics and the Human Body, Ed. A.Ravaglioli, A.Krajewski, pubblicato da Elsevier Science Pubbl.B.V. (Amsterdam, 1992), p.203-205.
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54. A.Piancastelli, A.Ravaglioli, A.Krajewski, F.Trotta "Rivestimento di superfici di manufatti metallici con sistemi vetro-ceramici". Proceedings of the 22nd International metallurgy Congress Innovation for quality (Bologna 17-19 Maggio 1988) II parte pag. 1831-1840.

**TRATTAMENTO DEI DATI
PERSONALI, INFORMATIVA E
CONSENSO**

Il D.Lgs. 30/6/2003, n. 196 "Codice in materia di protezione dei dati personali" regola il trattamento dei dati personali, con particolare riferimento alla riservatezza, all'identità personale e al diritto di protezione dei dati personali; l'interessato deve essere previamente informato del trattamento.

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In relazione a quanto riportato, autorizzo il CNR al trattamento dei dati contenuti nel presente *curriculum vitae* e nella documentazione della quale fa parte integrante

(*barrare la casella*)

☒ **Si, acconsento**

QUANTO DICHIARATO NEL PRESENTE CURRICULUM VITAE CORRISPONDE AL VERO AI
SENSI DEGLI ARTT. 46 E 47 DEL DPR 445/2000

Faenza, 14/12/2024



Firma: