

CURRICULUM VITAE di:

Nominativo	Orfeo Sbaizero
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Posizione accademica

Macrosettore:	09-D
Settore Concorsuale:	09-D1
Settore Scientifico Disciplinare:	Ing Ind 22
Qualifica:	Professore ordinario
Anzianità nel ruolo:	P.O. dal 2000
Sede Universitaria:	Universita' degli Studi di Trieste
Struttura di appartenenza (dipartimento o altro)	Dipartimento di Ingegneria e Architettura

Posizioni ricoperte precedentemente nel medesimo ateneo o in altri

Periodo	Fascia	Ateneo
1981-1987	Ricercatore	Universita' di Trieste
1987-2000	Professore Associato	Universita' di Trieste
2000-oggi	Professore Ordinario	Universita' di Trieste

Pubblicazioni Scientifiche

1. L. Marras, O. Sbaizero. (2009) "The Fragmentation Test applied to adhesion measurements and microstructural characterisation in plasma pretreated metallized plastic webs" *Packaging Technology and Science* 22, 293-302
2. O. Sbaizero L. Comin-Chiaramonti, G. Cavalleri, P. Comin-Chiaramonti. (2009) "Crystallochemical comparison between Portland cements and Mineral Trioxide

3. S. Pisanec, F. Zuliani, L. Colombi Ciacchi, G. Levita, O. Sbaizero, A. DeVita. (2009) "DFT modelling of ceramic materials and interfaces" - International Journal of Materials and Product Technology, 35(3-4), 271-92
4. S. Maggiolino, N. Scuor, o: Sbaizero, R. L. Mahajan. (2010) "MEMS-DSC: a new device for microcalorimetric analysis in the biological field" Microsystem Technologies, 16(6), 967-971
5. Bettarello F., Caniato M., Di Monte R., Kaspar J., Sbaizero O. "Preliminary Acoustic tests on resilient materials: comparison between common layers and nano-structured layers". 20th International Congress on Acustics, ICA 2010, Australian Acoustical Society, NSW Division, Sydney: pp.834-6, 23-27 August 2010, Sydney
6. F. Zuliani, R. Choudhury, O. Sbaizero, A. De Vita. (2010) "Enhanced Creep Resistance via Ion Exchange Processes in Al/MgAl₂O₄ composites" Progress in Reaction Kinetics and Mechanism, 35, 423-44
7. Pecorari I., Codan B., Martinelli V., Maggiolino S., Fior R., Sbaizero O. "Mechanical Properties of 3T3 Fibroblasts due to Fixation Assessed Using Atomic Force Microscopy" Veneto Nanotech, Venezia: pp.340-341: In: NanotechItaly, Promoting Responsible Innovation. 23-25 November 2011, Venezia
8. Codan B., Dorigo D., Martinelli V., Maggiolino S., Fior R., Sbaizero O. "Lithographic patterned substrate with nanotips for cell indentation. Veneto Nanotech, Venezia: pp.307-308: In: NanotechItaly. Promoting Responsible Innovation. 23-25 November 2011, Venezia
9. Fior R., Maggiolino S., Lazzarino M., Sbaizero O. (2011) A new transparent BioMEMS for uni-axial single cell stretching. Microsystem Technologies 17, 1581-1587
10. Fior R, Maggiolino S, Lazzarino M, Sbaizero O. (2011) "A new transparent BioMEMS for uni-axial single cell stretching" 2011, Microsystem Technologies 17(10): 1581-1587
11. Hussain S., Sbaizero O. Impedance Analyses of Al₂O₃-Mo Composites. (2012) The Dhaka University Journal of Science 60(2): 277-281

12. B. Codan, V. Martinelli, D. Slavov, C. Long, L. Mestroni, M.R.G. Taylor, Sbaizero O. "Mechanical properties of cells with laminopathies: an AFM study". In NanotechItaly 2012, pg 407-409, 21-23 Novembre 2012, Venezia
13. Del Favero G, Florio C, Codan B, Sosa S, Poli M, Sbaizero O, Molgó J, Tubaro A, Lorenzon P. (2012) "The stretch-activated channel blocker Gd³⁺ reduces palytoxin toxicity in primary cultures of skeletal muscle cells". Chem Res Toxicol 25, 1912-1920
14. Maggiolino S, Antonioli F, Pezzotti G, Sbaizero O. (2013) "Raman spectroscopy characterization of a thermal bimorph actuator used in a bio- MEMS device". Microsystem Technologies 19(7): 1055-1063
15. Sbaizero O, Codan B, Martinelli V, Maggiolino S, Mestroni L. (2013) "Influence of different fixation reagents on NIH 3T3 fibroblasts morphology: an AFM study" Applied Cell Biology 2(1) 15-22
16. Codan B, Martinelli V, Mestroni L, Sbaizero O. (2013) "Atomic force microscopy of 3T3 and SW-13 cell lines: an investigation of cell elasticity changes due to fixation" Mater. Sci. Eng. C: Mater Biol Appl 33(6) 3303-8
17. Antonioli F., Maggiolino S., Scuor N., Gallina P., Sbaizero O., (2014) A novel MEMS device for the multidirectional mechanical stimulation of single cells: Preliminary results. MECHANISM AND MACHINE THEORY 78: 131-140
18. Del Favero G, Tubaro A, Sosa S, Poli M, Sbaizero O, Lorenzon P. (2014) "In vivo and in vitro effects of 42-hydroxy-palytoxin on mouse skeletal muscle: structural and functional impairment. Toxicology Letters, 225/2: 285-293
19. Codan B, Del Favero G, Martinelli V, Long CS, Mestroni L, Sbaizero O. (2014) "Exploring the elasticity and adhesion behavior of cardiac fibroblasts by atomic force microscopy indentation" Mater. Sci. Eng. C: Mater Biol Appl 40: 427-434
20. Fior R, Kwok J, Malfatti F, Sbaizero O, Lal R. (2014) "Biocompatible Optically Transparent MEMS for Micromechanical Stimulation and Multimodal Imaging of Living Cells" Annals of Biomedical Engineering 1-11
21. Ferluga A., Caniato M., Sbaizero O. (2015) The influence of consolidation and artificial weathering on all-PP composite behavior, Journal of Applied Polymer Science 132(3): 41283

22. Perkin J, Slater R, Del Favero G, Lanzicher T, Hidalgo C, Anderson B, Smith JE 3rd, Sbaizero O, Labeit S, Granzier H. (2015) "Phosphorylating Titin's Cardiac N2B Element by ERK2 or CaMKII δ Lowers the Single Molecule and Cardiac Muscle Force" *Biophys J.* 109(12): 2592-601
23. Lanzicher T, Martinelli V, Long CS, Del Favero G, Puzzi L, Borelli M, Mestroni L, Taylor MR, Sbaizero O. (2015) "AFM single-cell force spectroscopy links altered nuclear and cytoskeletal mechanics to defective cell adhesion in cardiac myocytes with a nuclear lamin mutation" *Nucleus* 6(5): 394-407
24. Lanzicher T, Martinelli V, Puzzi L, Del Favero G, Codan B, Long CS, Mestroni L, Taylor MR, Sbaizero O. (2015) The Cardiomyopathy Lamin A/C D192G Mutation Disrupts Whole-Cell Biomechanics in Cardiomyocytes as Measured by Atomic Force Microscopy Loading-Unloading Curve Analysis. *Sci Rep.* 5: 13388
25. Seriani S, Del Favero G, Martinelli V, Mestroni L, Long CS, Sbaizero O., Gallina P. (2015) "Quantification of Dual Reporter Cell Cultures via Image Analysis" *Int. J. Eng. Sci. Innov.* 4(1): 350-367
26. Sbaizero O, DelFavero G, Martinelli V, Long CS, Mestroni L. (2015) "Analysis of long- and short-range contribution to adhesion work in cardiac fibroblasts: An atomic force microscopy study" *Mater. Sci. Eng. C - Mater Biol Appl* 49: 217-24
27. Caniato M., Bettarello F., Marsich L., Ferluga A., Sbaizero O., Schmid C. (2015) Time-depending performance of resilient layers under floating floors. *Construction and Building Materials* 102: 226:232
28. Marsich L., Ferluga A., Venturini N., Caniato M., Sbaizero O., Schmid C. (2016) The morphological properties of PP coextruded tape fabrics *Polymer Engineering And Science* 56(7) 727 - 734
29. Caniato M., Bettarello F., Marsich L., Ferluga A., Sbaizero O., Schmid C. (2016) Impulse response method for defect detection in polymers: Description of the method and preliminary results. *Polymer Testing* 55: 78-87
30. Mohanraj J., Puzzi L., Capria E., Corvaglia S., Casalis L., Mestroni L.,

- Sbaizero O., Fraleoni-Morgera A. (2016) Easy fabrication of aligned PLLA nanofibers-based 2D scaffolds suitable for cell contact guidance studies. *Materials Science And Engineering. C, Biomimetic Materials, Sensors and Systems* 62: 301-306
31. Puppulin L, Negra SD, Sugano N, Sbaizero O, Pezzotti G. (2016) "Surface modifications induced by in-vitro wear and oxidation on γ -irradiated UHMWPE hip liners belonging to different commercial generations" *J Mech Behav Biomed Mater.* 53: 414-26
 32. I. Pecorari, D. Borin, O. Sbaizero. (2017) A Perspective on the Experimental Techniques for Studying Lamins. *Cells* 6(4), 33
 33. B. Peña, S. Bosi, B.A. Aguado, D. Borin, N. L. Farnsworth, E. Dobrinskikh, T. J. Rowland, V. Martinelli, M. Jeong, M.R.G. Taylor, C.S. Long, R. Shandas, O. Sbaizero, M. Prato, K.S. Anseth, D. Park, L. Mestroni. (2017) Injectable Carbon Nanotube-Functionalized Reverse Thermal Gel Promotes Cardiomyocytes Survival and Maturation. *ACS Applied Materials & Interfaces* 9 (37), 31645-31656
 34. L. Marsich, A. Ferluga, L. Cozzarini, M. Caniato, O. Sbaizero, C. Schmid. (2017) The effect of artificial weathering on PP coextruded tape and laminate, In *Composites Part A: Applied Science and Manufacturing.* 95: 370-376
 35. A. Moreno-Cencerrado, J. Iturri, I. Pecorari, M. Vivanco, O. Sbaizero, J. Toca-Herrera, (2017), Investigating cell-substrate and cell-cell interactions by means of single-cell-probe force spectroscopy. *Microsc. Res. Tech.*, 80: 124-130.
 36. D. Borin, L. Puzzi, V. Martinelli, M. Cibinel, R. Lapasin, O. Sbaizero, (2017) An engineering insight into the relationship of selective cytoskeletal impairment and biomechanics of HeLa cells, *Micron*, 102: 88-96.
 37. I. Pecorari, L. Puzzi, O. Sbaizero. (2017), Atomic force microscopy and lamins: A review study towards future, combined investigations. *Microsc. Res. Tech.*, 80: 97-108.
 38. D. Borin, I. Pecorari, B. Pena, O. Sbaizero (2018) Novel insights into cardiomyocytes provided by atomic force microscopy. *Semin Cell Dev Biol.* 73: 4-12
 39. Laurini E, Martinelli V, Lanzicher T, Puzzi L, Borin D, Long CS, Lee P, Mestroni L, Taylor MRG, Sbaizero O, Pricl S. (2018) Biomechanical characteristics and rescue of cardiac myocytes expressing pathologic nuclear lamins. *Cardiovasc Res.* doi:

10.1093/cvr/cvy040

40. Puzzi L, Borin D, Martinelli V, Mestroni L, Kelsell DP, Sbaizero O. (2018) Cellular biomechanics impairment associated with a C-terminal truncated desmoplakin. *Micron*. 106: 27-33.
41. Del Favero G., Woelflingseder L, Janker L, Neuditschko B, Seriani S, Gallina P, Sbaizero O, Gerner C, MarkoD. (2018) Deoxynivalenol induces structural alterations in epidermoid carcinoma cells A431 and impairs the response to biomechanical stimulation *Scientific Reports*
42. Sbaizero O, Mestroni L. (2018) "Arrhythmogenic cardiomyopathy: mechanotransduction going wrong. *Circulation*; 137:1611–1613
43. V. Marinelli, S, Bosi, B. Pena, G. Baj, C.S. Long, O. Sbaizero, M. Giacca, M. Prato, L. Mestroni. 3D Carbon-Nanotube-Based Composites for Cardiac Tissue Engineering. *ACS Applied Bio Materials* 1(5): 1530-37
44. D. Borin, O. Sbaizero, N. Scuor. (2019) Application of a dielectric barrier discharge plasma for heating plastic materials, *Plasma Research Express* 1(2) (02509)

Titoli ¹

- Responsabilità scientifica generale o di unità (work package, unità nazionale nei progetti europei o locale in quelli nazionali ecc.) per progetti di ricerca internazionali e nazionali ammessi al finanziamento sulla base di bandi competitivi che prevedano la revisione tra pari:
 - PRIN 2017 – Settore LS
- Partecipazione al collegio dei docenti nell'ambito di dottorati di ricerca accreditati dal Ministero:
 - Dottorato in Nanotecnologie – Università di Trieste
- Incarichi di insegnamento o di ricerca (fellowship) presso qualificati atenei e istituti di ricerca esteri o sovranazionali:
 - Adjoint Professor – University of Colorado Denver
- direzione o partecipazione a gruppi di ricerca, nazionali o internazionali, legati a università ovvero a qualificate istituzioni pubbliche o private:
 - 2014 – 2019
 - Co P.I. in Fondation Leducq's "Transatlantic Networks of Excellence Program" Molecular Genetics, Pathogenesis and Protein-Replacement Therapy in Arrhythmogenic Cardiomyopathy
- Altri titoli che contribuiscano a una migliore definizione del profilo scientifico:
 - Premio "Marco Polo della Scienza Italiana" attribuito dall'ambasciata italiana di Tokyo durante il simposio "Italy meets Asia".

¹ In via esemplificativa sono indicate alcune voci

data

21/5/2019

firma

Deja Hoizer
