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Journal of Powder Metallurgy and Mining

Editor

Bruno Henriques

- Federal University of Santa Catarina/SC, Brazil
- CT2M - University of Minho, Mechanical Engineering Department, Portugal



Biography

- Bruno Henriques obtained his graduation and PhD in Mechanical Engineering at University of Minho, Portugal, in 2006 and 2012 respectively.
- He owns a post-graduation in Management from the same university took in 2009.
- He is currently conducting his research as a fellow of the research center CT₂M (Center for Mechanical and Materials Technologies - Portugal) and at the Federal University of Santa Catarina (Brazil), where also teaches.
- Bruno Henriques focuses his research in the areas of powder metallurgy, functionally graded biomaterials and composites for biomedical applications, particularly to prosthodontics.

- He has also been involved in the development of materials, technologies and processes for the jewelry industry.
- He has several papers published in International journals (ISI) and also in the Proceedings of national and international conferences.
- He has also delivered several talks in national and international conferences.
- He has one patent on prosthetic dentistry.

Research Interest

- Powder metallurgy
- Functionally graded biomaterials
- Metal-ceramic and ceramic composites for biomedical applications, particularly to prosthodontics
- Relationship between microstructures and mechanical properties of metals and ceramics
- Microstructural and mechanical characterization of biomaterials

Publications

- **Henriques B**, Soares D, Teixeira JC, Silva FS. Effect of hot pressing variables on the microstructure, relative density and hardness of sterling silver (Ag-Cu) powder compacts. *Materials Reserach*, 2014,
- Alexandre C. Diniz, Rubens M. Nascimento, Julio C. M. Souza, **B Henriques**, Adriana F. P. Carreiro. Fracture and shear bond analyses of different dental veneering ceramics to zirconia, *Materials Science and Engineering C*, 2014
- Souza JCM, **Henriques B**, Ariza E, Martinelli AE, Nascimento RM , Silva FS, Rocha LA, Celis JP. Mechanical and chemical analysis across porcelain-to-CP titanium and porcelain-to-Ti6Al4V interfaces. *Materials Science and Engineering C*, 2014; 37: 76-83
- **Henriques B**, Gasik M, Souza J, Soares D, Nascimento RM, Silva FS. Mechanical and thermal properties of hot pressed CoCrMo-porcelain composites developed for prosthetic dentistry, *Journal of the Mechanical Behaviour of Biomedical Materials*, 2014; 30: 103 – 110.
- **Henriques B**, Pinto P, Souza J, Teixeira JC, Soares D, Silva FS. On the hot pressing of coloured high-gold alloys powder compacts applied to the manufacturing of innovative jewellery items. *Gold Bulletin*, 2013; 46(2): 117-125

Publications

- Toptan F, Alves AC, **Henriques B**, Souza JCM, Silva FS, Rocha LA, Ariza E. Effect of processing on the shear bond strength of Ti-6Al-4V/porcelain systems for dental restorations. *Journal of the Mechanical Behaviour of Biomedical Materials*, 2013; 20: 327-337
- **Henriques B**, Soares D, Silva F. Hot Pressing effect on the bond strength of a CoCrMoSi alloy to a dental porcelain. *Materials Science and Engineering C*, 2013; 33(1): 557-563
- **Henriques B**, Soares D, Silva F. Analysis of CoCrMo surface oxide removal by alumina blasting before porcelain firing in dental restorations. *Materials Science Forum*, 2013 (730-732): 9.
- **Henriques B**, Soares D, Silva F. Influence of preoxidation cycle on the bond strength of CoCrMo-porcelain dental composites. *Materials Science and Engineering C*, 2012; 32(8): 2374-2380.
- **Henriques B**, Felix, S, Soares D, Silva F. Shear bond strength comparison between conventional porcelain fused to metal and new functionally graded dental restorations after thermal-mechanical cycling. *Journal of the Mechanical Behaviour of Biomedical Materials*, 2012; 13: 194-205.

Publications

- **Henriques B**, Gasik, M, Soares D, Silva F. Experimental evaluation of the bond strength between a CoCrMo dental alloy and porcelain through a composite metal-ceramic graded transition interlayer. *Journal of the Mechanical Behaviour of Biomedical Materials*, 2012; 13: 206-214.
- **Henriques B**, Soares D, Silva F. Microstructure, hardness, corrosion resistance and porcelain shear bond strength comparison between cast and hot pressed CoCrMo alloy for metal-ceramic dental restorations. *Journal of the Mechanical Behaviour of Biomedical Materials*, 2012; 12: 83-92.
- **Henriques B**, Soares D, Silva F. Shear bond strength of a hot pressed Au-Pd-Pt alloy-porcelain dental composite. *Journal of the Mechanical Behaviour of Biomedical Materials*, 2011; 4(8):1718-26.
- **Henriques B**, Soares D, Silva F. Optimization of bond strength between gold alloy and porcelain through a composite interlayer obtained by powdermetallurgy. *Materials Science and Engineering A* 2011, 528: 1415-1420.

Main Collaborations

- Federal University of Santa Catarina, Florianopolis/SC, Brazil
- CT2M – Centre for Mechanical and Materials Technologies, University of Minho, Portugal
- Faculdade de Medicina Dentária da Universidade do Porto, Porto, Portugal
- Federal University of Rio Grande do Norte, Natal/RN, Brasil
- Aalto University, Espoo, Finland

Thank you