

Curriculum Vitae

Personal Data

Name: José Luís Barroso de Aguiar

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Present Position

Associate Professor and Researcher of Materials at the Department of Civil Engineering, University of Minho.

Education and Degrees

PhD in Civil Engineering - Construction Materials, 1990, University of Minho.

BSc in Civil Engineering, 1982, University of Porto.

Topics of research

Durability of Materials; Polymers in Concrete; Phase Change Materials; Geopolymers.

Lectures

Construction Materials; Quality and Durability of Constructions; Pathology and Rehabilitation of Constructions.

Master and PhD supervision

Supervisor of 44 Master students and 8 PhD students.

Research Projects

Responsible of several funded research projects.

Norm for building materials.

Sustainable cement-polymer composites.
Contribution of thermal active mortars for building energy efficiency.
Innovative construction system with blocks produced in expanded polystyrene.
Study of functional mortars for sustainable construction.
Characterization of the constituents of brick masonry.
Development of a new integrated system, with basis of plaster, for lining constructive elements.
Adhesion between polymers and concrete.

Publications

Author and co-author of several books and book chapters.
Author and co-author of more than one hundred and fifty papers in international and national Journals and in international and national Conferences.

International Journal Papers

Y. Ding, X. Ning, Y. Zhang, F. Torgal and J. B. Aguiar, *Fibres for enhancing of the bond capacity between GFRP rebar and concrete*, Construction and Building Materials, Vol. 51, 2014, 303-312. doi: 10.1016/j.conbuildmat.2013.10.089

W. Tahri, B. Samet, F. Torgal, J. B. Aguiar, C. Jesus, and S. Baklouti, *Shrinkage and mechanical performance of geopolymeric mortars based on calcined Tunisian clay*, Chemistry and Materials Research, Vol. 4, 2013, 6-11.

S. Cunha, J. B. Aguiar, M. Kheradmand, L. Bragança and V. M. Ferreira, *Thermal mortars with incorporation of PCM microcapsules*, Restoration of Buildings and Monuments, Vol. 19, Nº 2/3, 2013, 171-178.

S. Lucas, V. Ferreira and J. B. Aguiar, *Latent heat storage in PCM containing mortars – Study of microstructural modifications*, Energy and Buildings, V. 66, 2013, 724-731. doi: 10.1016/j.enbuild.2013.07.060

J. B. Aguiar and C. Júnior, *Carbonation of surface protected concrete*, Construction and Building Materials, V.49, 2013, 478-483. doi: 10.1016/j.conbuildmat.2013.08.058

I. Ion, D. Stanciu, J. B. Aguiar and N. Angelescu, *Polymer concrete: Correlations between properties*, Metalurgia International, Vol. XVIII, Nº 5, 2013, 236-239.

D. Stanciu, I. Ion, J. B. Aguiar and N. Angelescu, *Self-compacting concrete: A comparison between the workability properties, density, porosity and mechanical properties*, Metalurgia International, Vol. XVIII, Nº 3, 2013, 138-141.

S. Cunha, J. B. Aguiar, V. Ferreira and A. Tadeu, *Influence of adding encapsulated phase change materials in aerial lime based mortars*, Advanced Materials Research, Vol. 687, 2013, 255-261. doi: 10.4028/www.scientific.net/AMR.687.255

J. B. Aguiar, M. H. Ozkul and S. Cunha, *Report from 13th ICPIIC and 7th ASPIC: New trends on*

- concrete-polymer composites*, Advanced Materials Research, Vol. 687, 2013, 45-56. doi: 10.4028/www.scientific.net/AMR.687.45
- I. Ion, J. B. Aguiar, N. Angelescu and D. Stanciu, *Properties of polymer modified concrete in fresh and hardened states*, Advanced Materials Research, Vol. 687, 2013, 204-212. doi: 10.4028/www.scientific.net/AMR.687.204
- E. Vasconcelos, S. Fernandes, J. Aguiar and F. Pacheco-Torgal, *Concrete retrofitting using CFRP and geopolymer mortars*, Materials Science Forum, Vols. 730-732, 2013, 427-432. doi: 10.4028/www.scientific.net/MSF.730-732.427
- S. Lucas, V. Ferreira and J. Aguiar, *Incorporation of titanium dioxide nanoparticles in mortars – Influence of microstructure in the hardened state properties and photocatalytic activity*, Cement and Concrete Research, V. 43, 2013, 112-120. doi: 10.1016/j.cemconres.2012.09.007
- S. Cunha, V. Alves, J. B. Aguiar and V. M. Ferreira, *Use of phase change materials microcapsules in aerial lime and gypsum mortars*, Cement Wapno Beton, Special issue, 2012, 17-21.
- F. Azevedo, F. Pacheco-Torgal, C. Jesus, J. B. Aguiar, A. F. Camões, *Properties and durability of HPC with tyre rubber wastes*, Construction and Building Materials, V.34, 2012, 186-191. doi: 10.1016/j.conbuildmat.2012.02.062
- Y. Ding, C. Azevedo, J. B. Aguiar and S. Jalali, *Study on residual behavior and flexural toughness of fibre cocktail reinforced self compacting high performance concrete after exposure to high temperature*, Construction and Building Materials, V. 26, 2012, 21-31. doi: 10.1016/j.conbuildmat.2011.04.058
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- N. Angelescu; J. Aguiar; G. Surugiu and L. Paunescu, *Considerations regarding the possibility of heat losses reducing through furnaces lining in accordance with actual trends of refractory lining structure optimization*, Metalurgia International, Vol. XV, Nº 12, 2010, 23-28.
- D. Van Gemert, L. Czarnecki. J. Aguiar, M. Ferreira, E. Knapen, and A. Garbacz, *New trends in concrete-polymer composite materials and systems*, Restoration of Buildings and Monuments, Vol. 14, Nº 3, 2008, 197-210.
- J. Aguiar, A. Camões and P. M. Moreira, *Coatings for concrete protection against aggressive environments*, Journal of Advanced Concrete Technology, Vol. 6, Nº 1, 2008, 243-250. doi: 10.3151/jact.6.243

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- J. B. Aguiar, A. F. Camões, T. J. Pimenta, N. F. Vaz and M. M. Araújo, *Effect of temperature on systems for the reinforcement of concrete*, Advances in Materials Science and Restoration, Nº 2, 2007, 183-192.
- N. L. Vaz, J. B. Aguiar e A. F. Camões, *Influência da temperatura no comportamento de reforços exteriores de betão armado*, Revista Internacional Construlink, Vol. 3, Nº 8, 2005, 1-8. (in portuguese)
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