

List of scientific publications

Publications in scientific journals, as (co-)author (2019-2023)

1 Published publications in international peer-reviewed journals (ISI indexed)

1.1 2019

- [1] A. Akhavan Safar, M. R. Ayatollahi, S. A. Bahreinian, Lucas F. M. da Silva, 'Application of adhesively bonded single lap joints for fracture assessment of adhesive materials', *The Journal of Adhesion* **95**(1): 1–22, 2019, doi: 10.1080/00218464.2017.1329656.
- [2] J. Bonaldo, M. D. Banea, R. J. C. Carbas, Lucas F. M. da Silva, S. de Barros, 'Functionally graded adhesive joints by using thermally expandable particles', *The Journal of Adhesion* **95**(11): 995–1014, 2019, doi: 10.1080/00218464.2018.1456338.
- [3] X. Shang, E. A. S. Marques, J. J. M. Machado, R. J. C. Carbas, D. Jiang, Lucas F. M. da Silva, 'A strategy to reduce delamination of adhesive joints with composite substrates', *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* **233**(3): 521–530, 2019, doi: 10.1177/1464420718805712.
- [4] J. J. M. Machado, P. D. P. Nunes, E. A. S. Marques, Lucas F. M. da Silva, 'Adhesive joints using aluminium and CFRP substrates tested at low and high temperatures under quasi-static and impact conditions for the automotive industry', *Composites Part B: Engineering* **158**: 102–116, 2019, doi: 10.1016/j.compositesb.2018.09.067.
- [5] D. F. O. Braga, R. Maciel, L. Bergmann, Lucas F. M. da Silva, V. Infante, J. F. dos Santos, P. M. G. P. Moreira, 'Fatigue performance of hybrid overlap friction stir welding and adhesive bonding of an Al-Mg-Cu alloy', *Fatigue and Fracture of Engineering Materials and Structures* **42**(6): 1262–1270, 2019, doi: 10.1111/ffe.12933.
- [6] D. G. dos Santos, R. J. C. Carbas, E. A. S. Marques, Lucas F. M. da Silva, 'Reinforcement of CFRP joints with fibre metal laminates and additional adhesive layers', *Composites Part B: Engineering* **165**: 386–396, 2019, doi: 10.1016/j.compositesb.2019.01.096.
- [7] E. Paroissien, F. Lachaud, Lucas F. M. da Silva, S. Seddiki, , 'A comparison between macro-element and finite element solutions for the stress analysis of functionally graded single-lap joints', *Composite Structures* **215**: 331–350, 2019, doi: 10.1016/j.compstruct.2019.02.070
- [8] R. J. C. Carbas, Lucas F. M. da Silva, L. F. S. Andrés, 'The mechanical response of a structural epoxy adhesive reinforced with carbon black nanoparticles', *Microscopy and Microanalysis* **25**(1): 187-191, 2019, doi: 10.1017/S1431927618015106.

- [9] J. J. M. Machado, E. A. S. Marques, A. Q. Barbosa, Lucas F. M. da Silva, 'Effect of hygrothermal aging on the quasi-static behaviour of CFRP joints varying the overlap length', *Composite Structures* **214**: 451–461, 2019, doi: 10.1016/j.compstruct.2019.02.035.
- [10] M. R. Ayatollahi, A. Ajdani, A. Akhavan-Safar, Lucas F. M. da Silva, 'Effect of notch length and pre-crack size on mode II fracture energy of brittle adhesives', *Engineering Fracture Mechanics* **212**: 123–135, 2019, doi: 10.1016/j.engfracmech.2019.03.024.
- [11] J. Monteiro, A. Akhavan-Safar, R. Carbas, E. Marques, R. Goyal, M. El-Zein, Lucas F. M. da Silva, 'Mode II modeling of adhesive materials degraded by fatigue loading using cohesive zone elements', *Theoretical and Applied Fracture Mechanics* **103**: 102253, 2019, doi: 10.1016/j.tafmec.2019.102253.
- [12] J. J. M. Machado, A. Hayashi, P. D. P. Nunes, E. A. S. Marques, R. J. C. Carbas, C. Sato, Lucas F. M. da Silva, 'Strain rate dependence of a crash resistant adhesive as a function of temperature for the automotive industry', *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* **233**(11): 2189–2203, 2019, doi: 10.1177/1464420719836914.
- [13] J. P. A. Valente, R. D. S. G. Campilho, E. A. S. Marques, J. J. M. Machado, Lucas F. M. da Silva, 'Adhesive joint analysis under tensile impact loads by cohesive zone modelling', *Composite Structures* **222**: 110894, 2019, doi: 10.1016/j.compstruct.2019.110894.
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- [21] D. K. K. Cavalcanti, M. D. Banea, J. S. S. Neto, R. A. A. Lima, Lucas F. M. da Silva, R. J. C. Carbas, 'Mechanical characterization of intralaminar natural fibre-reinforced hybrid composites', *Composites Part B: Engineering* **175**: 107149, 2019, doi: 10.1016/j.compositesb.2019.107149.
- [22] P. Zamani, A. Jaamialahmadi, Lucas F. M. da Silva, K. Farhangdoost, 'An investigation on fatigue life evaluation and crack initiation of Al-GFRP bonded lap joints under four-point bending', *Composite Structures* **229**, 111433, 2019, doi: 10.1016/j.compstruct.2019.111433.
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1.2 2020

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