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Selected Publications (2015-2020)

Peer Reviewed International Journal

Alex, A.J., Vaira Vignesh R, **Padmanaban, R.** and Govindaraju, M., 2020. Effect of Fe particles on the microstructural evolution and mechanical properties of friction welded Al-Cu components. Australian Journal of Mechanical Engineering, pp.1-11.

Muralimanokar, M., Vaira, V.R., **Padmanaban, R.** and Suganya, P.G., 2020. Characterization of AZ31-NbC surface composite fabricated by friction stir processing. Koroze a ochrana materiálu, 64(1), pp.29-37.

R Padmanaban, V Balusamy, R Vaira Vignesh “Effect of friction stir welding process parameters on the tensile strength of dissimilar aluminum alloy AA2024-T3 and AA7075-T6 joints”, Materialwissenschaft und Werkstofftechnik, 2020

Vignesh, R.V., **Padmanaban, R.** and Govindaraju, M., 2020. Study on the corrosion and wear characteristics of magnesium alloy AZ91D in simulated body fluids. Bulletin of Materials Science, 43(1), p.8. Ilangovan, S., Vignesh, R.V., **Padmanaban, R.** and Gokulachandran, J., 2019. Effect of composition and aging time on hardness and wear behavior of Cu-Ni-Sn spinodal alloy. Journal of Central South University, 26(10), pp.2634-2642. (Published : 14 Nov 2019) <https://link.springer.com/article/10.1007/s11771-019-4200-x>

R VairaVignesh, **R Padmanaban**, M Govindaraju and G SuganyaPriyadharshini, "Investigations on the corrosion behaviour of magnesium alloy surface composites AZ91D-ZrO₂ fabricated by friction stir processing", Transactions of the IMF, 10.1080/00202967.2019.1648005. (Published 29 April 2019) <https://www.tandfonline.com/doi/abs/10.1080/00202967.2019.1648005>

M. Govindaraju, R. VairaVignesh and **R. Padmanaban** " Effect of heat treatments on the microstructure and mechanical properties of friction stir processed magnesium alloy AZ91D" Intl. Jnl of Metal Science and Heat treatment, Vol 5 (767), May 2019. <https://link.springer.com/article/10.1007/s11041-019-00422-1>

R. VairaVignesh, **R. Padmanaban**, M. Govindaraju, and Dr K Mohandas “Research and development in magnesium alloys for industrial and biomedical applications – A Review”, Metals and Materials International, July 2019, <https://doi.org/10.1007/s12540-019-00346-8>. <https://link.springer.com/article/10.1007/s12540-019-00346-8>

A. YakeshAravind, R. VairaVignesh, R. Padmanaban, M. Govindaraju, "Study on the Mechanical and Corrosion behavior of AA5052 Tailor Welded Blanks Fabricated using Friction Stir Welding" J. Mater. Environ. Sci., 2019, Volume 10, Issue 7, Page 624-636

R VairaVignesh, **R Padmanaban**, and M Govindaraju , " Synthesis and Characterization of Magnesium Alloy Surface Composite (AZ91D - SiO₂) by Friction Stir Processing for Bioimplants" , Silicon, (Published 18-June 2019), [https://doi.org/ 10.1007/s12633-019-00194-6](https://doi.org/10.1007/s12633-019-00194-6)
<https://link.springer.com/article/10.1007/s12633-019-00194-6>

Vignesh, R.V., **Padmanaban, R.** and Govindaraju, M., "Investigations on the Surface topography, Corrosion behavior, and Biocompatibility of Friction Stir Processed Magnesium Alloy AZ91D". Surface Topography: Metrology and Properties, (Published 14-June 2019),<https://doi.org/10.1088/2051-672X/ab269c>.[https://iopscience.iop.org/ article/10.1088 /2051-672X/ab269c](https://iopscience.iop.org/article/10.1088/2051-672X/ab269c)

VR Barath, G Padmanabham, **R Padmanaban**, M Tak. "Adaptive Process Control for Uniform Laser Hardening of Complex Geometries Using Iterative Numerical Simulation", Materials Performance and Characterization, Nov. 2019, Vol. 8, Issue 6.https://www.astm.org/DIGITAL_LIBRARY/JOURNALS/MPC/PAGES/MPC20180095.htm

Chinnaraj K, Sathya Prasad M, Lakshmana Rao C, **Padmanaban R.** "Study of the Influence of coiling-uncoiling induced residual stresses on the fatigue behavior of truck frame rail sections ", Journal of Engineering Science and Technology, June 2019, Vol.14, Issue 3 pages, 1161-1172. http://jestec.taylors.edu.my/Vol%2014%20issue%203%20June%202019/14_3_4.pdf

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Abijith, M.N., Nair, A.R., Aadharsh, M., Vignesh, R.V., **Padmanaban, R.** and Arivarasu, M., 2018. Investigations on the Mechanical, Wear and Corrosion Properties of Cold Metal Transfer Welded and Friction Stir Welded Aluminium Alloy AA2219. *Jordan Journal of Mechanical & Industrial Engineering*, 12(4). (Dec 2018)http://jjmie.hu.edu.jo/vol12-4/jjmie_90_18-01.pdf

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