

List of Publications:

[Effect of Mn and C on grain growth in Mn steels](#), **M Bhattacharyya**, Brian Langelier, Gary R Purdy, Hatem S Zurob, *Metall Mater Trans A* **50**, 905–914 (2019).
<https://doi.org/10.1007/s11661-018-5032-2>.

[Effect of solute Nb on grain growth in Fe-30 Pct Mn steel](#), **M Bhattacharyya**, Brian Langelier, Hatem S Zurob, *Metall Mater Trans A* **50**, 3674–3682 (2019).
<https://doi.org/10.1007/s11661-019-05273-2>.

[Austenite grain growth in high manganese steels](#), **M Bhattacharyya**, Yves Brechet, Gary R Purdy, Hatem S Zurob, *Metall Mater Trans A* **50**, 5760–5766 (2019).
<https://doi.org/10.1007/s11661-019-05460-1>.

[Pitting behavior of friction stir repair-welded 304L stainless steel in 3.5% NaCl solution at room temperature: role of grain and defect structures](#), Anirban Naskar, **M Bhattacharyya**, Krishnan S Raja, Indrajit Charit, Jens Darsell, Saumyadeep Jana, *SN Appl. Sci.* **2**, 2164 (2020). <https://doi.org/10.1007/s42452-020-03935-0>.

[Processing-microstructure-property correlations for temperature-controlled friction stir welding of 304L SS plates](#), **M Bhattacharyya**, Arnab Kundu, Krishnan S Raja, Jens Darsell, Saumyadeep Jana, Indrajit Charit, *Materials Science and Engineering: A*, **804**, 140635, <https://doi.org/10.1016/j.msea.2020.140635>.

[Friction stir processing of a high entropy alloy Fe₄₂Co₁₀Cr₁₅Mn₂₈Si₅ with transformative characteristics: Microstructure and mechanical properties](#), Anumat Sittiho, **M Bhattacharyya**, Jadzia Graves, Saurabh S Nene, Rajiv S Mishra, Indrajit Charit, *Materials Today Communications*, **28**, 102635, <https://doi.org/10.1016/j.mtcomm.2021.102635>.

[Evaluation of residual stresses in isothermal friction stir welded 304L stainless steel plates](#), **M Bhattacharyya**, Thomas Gnaupel-Herold, Krishnan S Raja, Jens Darsell, Saumyadeep Jana, Indrajit Charit, *Materials Science and Engineering: A*, **826**, 141982, <https://doi.org/10.1016/j.msea.2021.141982>.

[Indentation investigation of 304L stainless steel friction stir weld simulated crack repair](#), Nicolene van Rooyen, **M Bhattacharyya**, Indrajit Charit, Michael R Maughan, *Materials Science and Engineering: A*, **836**, 142691, <https://doi.org/10.1016/j.msea.2022.142691>.

[Room temperature corrosion behaviour of plastically deformed AISI 304 stainless steel by friction stir welding in neutral and acidified chloride solutions](#), Anirban Naskar, **M Bhattacharyya**, Krishnan S Raja, Indrajit Charit, Jens Darsell, Saumyadeep Jana, *Corrosion Engineering, Science and Technology*, **57**(7), 599–612, <https://doi.org/10.1080/1478422X.2022.2105682>.

[Chloride-Induced Stress Corrosion Cracking of Friction Stir-Welded 304L Stainless Steel: Effect of Microstructure and Temperature](#), Anirban Naskar, **M Bhattacharyya**, Saumyadeep

Jana, Jens Darsell, Krishnan S Raja, Indrajit Charit, *Crystals*, 14(6), 556, <https://doi.org/10.3390/cryst14060556>.

[A Feasibility Study on Crack Repair in Austenitic Stainless Steel Dry Storage Canisters Using Isothermal Friction Stir Welding](#), M Bhattacharyya, Indrajit Charit, Krishnan Raja, Jens Darsell, Saumyadeep Jana, In *Pressure Vessels and Piping Conference*, vol. 83815, p. V001T01A099. American Society of Mechanical Engineers, 2020, <https://doi.org/10.1115/PVP2020-21716>.

Book Chapter:

[Comparison of Additive Manufacturing and Powder Metallurgy Methods and Their Components](#), Madhumanti Bhattacharyya, Indrajit Charit, ASM International, <https://doi.org/10.31399/asm.tb.pmamfa.t59400247>.