

DAFTAR PUSTAKA

- Al-Roubaiy, A. O., Nabat, S. M., dan DI Batako, A., 2019, An Investigation into Friction Stir Welding of Aluminium Alloy 5083-H116 Similar Joints, *Materials Today: Proceedings*, 22, 2140–2152, <https://doi.org/10.1016/j.matpr.2020.03.281>.
- Altenberger, I., Nalla, R. K., Sano, Y., Wagner, L., dan Ritchie, R. O., 2012, On the effect of deep-rolling and laser-peening on the stress-controlled low-and high-cycle fatigue behavior of Ti-6Al-4V at elevated temperatures up to 550 °c, *International Journal of Fatigue*, 44, 292–302. <https://doi.org/10.1016/j.ijfatigue.2012.03.008>.
- Altenkirch, J., Steuwer, A., Peel, M. J., Withers, P. J., Williams, S. W., dan Poad, M., 2008, Mechanical tensioning of high-strength aluminum alloy friction stir welds, *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, 39(13), 3246–3259. <https://doi.org/10.1007/s11661-008-9668-1>.
- Altenkirch, J., Steuwer, A., Peel, M., Richards, D. G., dan Withers, P. J., 2008, The effect of tensioning and sectioning on residual stresses in aluminium AA7749 friction stir welds, *Materials Science and Engineering A*, 488(1–2), 16–24. <https://doi.org/10.1016/j.msea.2007.10.055>.
- Altenkirch, J., Steuwer, A., Withers, P. J., Williams, S. W., Poad, M., dan Wen, S. W., 2009, Residual stress engineering in friction stir welds by roller tensioning, *Science and Technology of Welding and Joining*, 14(2), 185–192. <https://doi.org/10.1179/136217108X388624>.
- Anderson, T. L., 2017, Fracture Mechanics: Fundamental and Applications, *CRC Press Taylor & Francis Group 6000 Broken Sound Parkway NW, Suite 300 Boca Raton, FL 33487-2742, ISBN-13:978-1-4987-2813-3*, 668.
- Aneja, C., dan Handa, A., 2016, Effect of tool shape on mechanical properties and microstructure of friction stir welded aluminum alloys, *Materials Science and Engineering A*, 419(1–2), 25–31. <https://doi.org/10.1016/j.msea.2005.11.045>.
- Askeland, D. R., dan Wright, W. J., 2016, The Science and Engineering of Materials

7th Edition, *Cengage Learning 20 Channel Center Street Boston, MA 02210 USA, ISBN: 978-1-305-07676-1*, 180–200.

ASM., 1990, Volume 2 Properties and Selection : NonFerrous Alloys and Special Purpose Materials, *ASM International*.

ASM., 1991, ASM Handbook, Volume 4, Heat Treating, *ASM International*, 289–322. <https://doi.org/10.1201/9781315120577>.

Babu, N., Susenthirar, R., dan Karunakaran, N., 2016, *Microstructural and Mechanical Properties of Solid State Welded Dissimilaraluminum Alloy Joints*, 14(4), 2958–2966.

Bai, Y., Su, H., dan Wu, C., 2021, *Enhancement of the Al / Mg Dissimilar Friction Stir Welding*, 1–16.

Barbini, A., Carstensen, J., dan Dos Santos, J. F., 2018, Influence of alloys position, rolling and welding directions on properties of AA2024/AA7050 dissimilar butt weld obtained by friction stirwelding, *Metals*, 8(4). <https://doi.org/10.3390/met8040202>.

Biro, A. L., Chenelle, B. F., & Lados, D. A., 2012, Processing, microstructure, and residual stress effects on strength and fatigue crack growth properties in friction stir welding: A review, *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, 43(6), 1622–1637. <https://doi.org/10.1007/s11663-012-9716-5>.

Bounini, B. T., Bouchouicha, B., Ghazi, A., 2018, Simulation of the behavior of aluminum alloys welded in friction stir welding FSW (Case of AA5083 and AA 6082), *Frattura Ed Integrita Strutturale*, 12(46), 1–13. <https://doi.org/10.3221/IGF-ESIS.46.01>.

Cao, X., dan Jahazi, M., 2009, Effect of welding speed on the quality of friction stir welded butt joints of a magnesium alloy, *Materials and Design*, 30(6), 2033–2042. <https://doi.org/10.1016/j.matdes.2008.08.040>.

Carlone, P., Palazzo, G.S., 2013, Influence of process parameters on microstructure and mechanical properties in AA2024-T3 friction stir welding, *Metallogr. Microstruct. Anal.* 2 213-222.

Cerri, E., dan Evangelista, E., 1999, Metallography of Aluminium alloys, *Talat*, 20.

<http://www.alueurope.eu/talat/lectures/1202.pdf>.

Choudhury, S., Medhi, T., Sethi, D., Kumar, S., Roy, B.S., Saha, S.C., 2020, Temperature distribution and residual stress in friction stir welding process, *Mater Today: Proc.* 26 2296-2301.

Conrardy, C., Huang, T.D., Harwig, D., Dong, P. P., Kvidahl, L., Evans, N., Treaster, A., 2006, Practical welding techniques to minimize distortion in lightweight ship structures, *J. Ship. Production* 22(4) 239-247.

D. A. Virkler, B. M. Hillberr Y, dan P. K. Goel., 1978, The Statistical Nature Of Fatigue Crack Propagation, *Air Force Flight Dynamucs Laboratory, Air Force Wright Aeronautical Laboratories, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio 45433*.

David Broek., 1982, Elementary Engineering Fracture Mechanics, *Martinus Nijhoff Publishers The Hague/Boston/London, ISBN-13:978-94-010-8425-3, DOI: 10.1007/978-94-009-4333-9*.

Dawson, H., Serrano, M., Cater, S., Wady, P., Pirling, T., dan Jimenez-Melero, E., 2017, Residual stress distribution in friction stir welded ODS steel measured by neutron diffraction, *Journal of Materials Processing Technology*, 246, 305–312. <https://doi.org/10.1016/j.jmatprotec.2017.03.013>.

Deo, M. V., dan Michaleris, P., 2003, Mitigation of welding induced buckling distortion using transient thermal tensioning, *Science and Technology of Welding and Joining*, 8(1), 49–54. <https://doi.org/10.1179/136217103225008919>.

Deplus, K., Simar, A., Haver, W. Van, dan Meester, B. De., 2011, Residual stresses in aluminium alloy friction stir welds, *International Journal of Advanced Manufacturing Technology*, 56(5–8), 493–504. <https://doi.org/10.1007/s00170-011-3210-0>.

Dialami, N., Cervera, M., dan Chiumenti, M., 2019, Effect of the tool tilt angle on the heat generation and the material flow in friction stir welding, *Metals*, 9(1). <https://doi.org/10.3390/met9010028>.

Dinda, S., 2002, ScholarWorks at WMU Correlation and Prediction of Fatigue Crack Growth Rate for different R-Ratios For Different R-Ratios, *Western*

Michigan University Kalamazoo, Michigan.

- Du, C., Pan, Q., Chen, S., dan Tian, S., 2020, Effect of rolling on the microstructure and mechanical properties of 6061-T6 DS-FSW plate, *Materials Science and Engineering A*, 772, 138692. <https://doi.org/10.1016/j.msea.2019.138692>.
- Easterling, K., dan Sc, D., 1992, Introduction to the Physical Metallurgy of Welding, *Introduction to the Physical Metallurgy of Welding*. <https://doi.org/10.1016/c2013-0-04524-0>.
- Elangovan, K., Balasubramanian, V., 2008, Influences of tool pin profile and welding speed on the formation of friction stir processing zone in AA2219 aluminium alloy, *Journal of Materials Processing Technology*, 200(1–3), 163–175. <https://doi.org/10.1016/j.jmatprotec.2007.09.019>.
- Elber, W., 1971, The significance of fatigue crack closure, Damage tolerance in aircraft structures, ASTM STP 486, American Society for Testing and Materials, Philadelphia, pp. 230-242.
- Forman, R. G., Kearney, V. E., dan Engle, R. M., 1967, Numerical analysis of crack propagation in cyclic-loaded structures, *Journal of Basic Engineering, Transactions of the ASME*, Sept. pp. 459-464.
- Fouladi, S., Ghasemi, A. H., Abbasi, M., Abedini, M., Khorasani, A. M., dan Gibson, I., 2017, The effect of vibration during friction stir welding on corrosion behavior, mechanical properties, and machining characteristics of stir zone, *Metals*, 7(10). <https://doi.org/10.3390/met7100421>.
- Franchim, S. A., Fernandez, F. F., Travessa, D. N., 2011, Microstructural aspects and mechanical properties of friction stir welded AA2024-T3 aluminium alloy sheet, *Materials and Design* 32 4684–4688.
- Fratini, L., Pasta, S., Reynolds, A.P., 2009, Fatigue crack growth in 2024-T351 friction stir welded joints: Longitudinal residual stress and microstructural effects, *Int. J. Fatigue* 31 495-500.
- Furrer, D. U., Semiatin, S. I., 2009, ASM Handbook volume 22A, Fundamentals of modelling for metals processing, Materials Park, OH 44073-0002.
- Gdoutos, E. E., 2005, Fracture mechanics: an introduction, In *Materials Today* (Vol. 8, Issue 5). [https://doi.org/10.1016/s1369-7021\(05\)00848-5](https://doi.org/10.1016/s1369-7021(05)00848-5).

- Guan, Q., 2005, Control of buckling distortions in plates and shells, In *Processes and Mechanisms of Welding Residual Stress and Distortion*, Woodhead Publishing Limited. <https://doi.org/10.1533/9781845690939.2.295>.
- Guo, J. F., Chen, H. C., Sun, C. N., Bi, G., Sun, Z., dan Wei, J., 2014, Friction stir welding of dissimilar materials between AA6061 and AA7075 Al alloys effects of process parameters, *Materials and Design*, 56, 185–192. <https://doi.org/10.1016/j.matdes.2013.10.082>.
- Guo, S. Q., Xu, W. L., Yuan, H., Gu, W. H., dan Tian, X. T., 2005, Numerical Simulation of Distortion Control by Static Thermal Tensioning in Welding of Thin Aluminum Alloy Plates, *Materials Science Forum*, 475–479, 3263–3266. <https://doi.org/10.4028/www.scientific.net/msf.475-479.3263>.
- Haghshenas, M., Gharghoury, M. A., Bhakhri, V., Klassen, R. J., dan Gerlich, A. P., 2017, Assessing residual stresses in friction stir welding: neutron diffraction and nanoindentation methods, *International Journal of Advanced Manufacturing Technology*, 93(9–12), 3733–3747. <https://doi.org/10.1007/s00170-017-0759-2>.
- Huang, T.D., Conrardy, C., Dong, P., Kvidahl, L., Decan, L., 2006, Distortion Mitigation Technique for Lightweight Ship Structure Fabrication, Northrop Grumman Ship Systems, Society of Naval Architects and Marine Engineers, US.
- Huang, Y., Wan, L., Lv, S., Zhang, J., dan Fu, G., 2013, In situ rolling friction stir welding for joining AA2219, *Materials and Design*, 50, 810–816. <https://doi.org/10.1016/j.matdes.2013.03.088>.
- Humphreys, F., Rohrer, G. S., dan Hatherly, M., 2004, Recrystallization and Related Annealing Phenomena: Second Edition, *Recrystallization and Related Annealing Phenomena: Second Edition*, 1–628. <https://doi.org/10.1016/B978-0-08-044164-1.X5000-2>.
- Ilman, M. N., Kusmono, dan Iswanto, P. T., 2013, Fatigue crack growth rate behaviour of friction-stir aluminium alloy AA2024-T3 welds under transient thermal tensioning, *Materials and Design*, 50, 235–243. <https://doi.org/10.1016/j.matdes.2013.02.081>.

- Ilman, M. N., Kusmono, Muslih, M. R., Subeki, N., dan Wibowo, H., 2016, Mitigating distortion and residual stress by static thermal tensioning to improve fatigue crack growth performance of MIG AA5083 welds, *Materials and Design*, 99, 273–283. <https://doi.org/10.1016/j.matdes.2016.03.049>.
- Ilman, M. N., Sehonon, Muslih, M. R., Wibowo, H., 2020, The application of transient thermal tensioning for improving fatigue crack growth resistance of AA5083-H116 FSW joints by varying secondary heating temperature, *International Journal of Fatigue*, 133 (December 2019), 105464. <https://doi.org/10.1016/j.ijfatigue.2019.105464>.
- Imam, M., Sun, Y., Fujii, H., Ma, N., Tsutsumi, S., dan Murakawa, H., 2017, Microstructural Characteristics and Mechanical Properties of Friction Stir Welded Thick 5083 Aluminum Alloy, *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, 48(1), 208–229. <https://doi.org/10.1007/s11661-016-3819-6>.
- Ishak, M., Amir, A., Hadi, A., 2014, Effect of solution treatment temperature on microstructure and mechanical properties of A356 alloy, International Conference on Mechanical Engineering Research (ICMER2013), Universiti Malaysia Pahang
- ISO 24173, 2009, Microbeam analysis — Guidelines for orientation measurement using electron backscatter diffraction, *Technical Committee ISO/TC 2*, Switzerland.
- Jaap Schijve, 2009. Fatigue of Structures and Materials, Second Edition with CD-Rom, In *Angewandte Chemie International Edition*, 6(11), 951–952.
- Jamshidi Aval, H., Serajzadeh, S., Sakharova, N. A., Kokabi, A. H., dan Loureiro, A., 2012, A study on microstructures and residual stress distributions in dissimilar friction-stir welding of AA5086-AA6061, *Journal of Materials Science*, 47(14), 5428–5437. <https://doi.org/10.1007/s10853-012-6430-2>.
- Jamshidi Aval, Hamed., 2015, Microstructure and residual stress distributions in friction stir welding of dissimilar aluminium alloys, *Materials and Design*, 87, 405–413. <https://doi.org/10.1016/j.matdes.2015.08.050>.
- Jenney, C. L., dan O'Brien, A., 2001, *Welding Handbook*, Welding Science And

- Technology, Ninth Edition Volume 1, In *American Welding Society 550 N.W. LeJeune Road Miami, FL 33126* i (Vol. 1). <https://doi.org/10.1007/978-1-349-00324-2>.
- John E. Hatch., 1984, Properties Of Pure Aluminum, *Science*, 205(4407), 710–713. <https://doi.org/10.1126/science.462180>.
- Karl-Heinrich Grote, dan Antonsson, E. K., 2008, Springer Handbook of Mechanical Engineering, *Le-Tex Publishing Services OHG, Leipzig*.
- Kaushik, P., dan Dwivedi, D. K., 2021, Effect of tool geometry in dissimilar Al-Steel Friction Stir Welding, *Journal of Manufacturing Processes*, 68(July), 198–208. <https://doi.org/10.1016/j.jmapro.2020.08.007>.
- Khodir, S. A., Shibayanagi, T., Naka, M., 2006, Microstructure and Mechanical Properties of Friction Stir Welded AA2024-T3 Aluminum Alloy, *Materials Transactions*, Vol. 47, No. 1, pp. 185 to 193.
- Kobayashi, M., Matsui, T., dan Murakami, Y., 1998, Mechanism of creation of compressive residual stress by shot peening, *International Journal of Fatigue*, 20(5), 351–357. [https://doi.org/10.1016/S0142-1123\(98\)00002-4](https://doi.org/10.1016/S0142-1123(98)00002-4).
- Kou, S., 2003, *Metallurgy Second Edition Welding Metallurgy*, Wiley-Interscience, A Jhon Wiley and Son INC Publication, Hoboken, New Jersey.
- Lammi, C.J., Lados, D.A., 2012, Effects of processing residual stresses on fatigue crack growth behaviour of structural materials: Experimental approaches and microstructural mechanisms, *Metall. Mater. Trans. A*. 43 (A) 87-107.
- Lancaster, J. F., 1999, Metallurgy of Welding, In *Metallurgy of Welding*, <https://doi.org/10.1533/9781845694869>.
- Leonard P Connor., 1998, Welding Handbook, Eighth Edition, Volume 1, Welding Technology, *American Welding Society 550 N.W. LeJeune Road Miami, FL 33135, 1050*, 3–8.
- Li, J., dan Shi, Q. Y., 2011, Minimizing buckling distortion in welding by weld cooling, *Minimization of Welding Distortion and Buckling: Modelling and Implementation*, 214–240. <https://doi.org/10.1533/9780857092908.2.214>,
- Li, Y., Sun, D dan Gong, W., 2019, Effect of Tool Rotational Speed on the Microstructure and Mechanical Properties of Bobbin Tool Friction Stir

Welded 6082-T6 Aluminum Alloy, *Metals*, 9, 894.

Li, Yingli, Yan, H., Chen, J., Xia, W., Su, B., Ding, T., dan Li, X., 2020, Influences of welding speed on microstructure and mechanical properties of friction stir welded Al-Mg alloy with high Mg content, *Materials Research Express*, 7(7), 76506. <https://doi.org/10.1088/2053-1591/ab9854>,

Li, Yong, Shi, Z., Lin, J., Yang, Y. L., dan Rong, Q., 2017, Extended application of a unified creep-ageing constitutive model to multistep heat treatment of aluminium alloys, *Materials and Design*, 122, 422–432. <https://doi.org/10.1016/j.matdes.2017.03.023>.

Lin, C. Y., Xia, Y. C., Jiang, Y. Q., Zhou, H. M., Li, L. T., 2013, Precipitation hardening of 2024-T3 aluminum alloy during creep aging, *Materials Science & Engineering A* 565, 420–429.

Liu, X. C., dan Wu, C. S., 2015, Material flow in ultrasonic vibration enhanced friction stir welding, *Journal of Materials Processing Technology*, 225, 32–44. <https://doi.org/10.1016/j.jmatprotec.2015.05.020>.

Liu, Xiaochao, Wu, C., dan Padhy, G. K., 2015, Characterization of plastic deformation and material flow in ultrasonic vibration enhanced friction stir welding, *Scripta Materialia*, 102, 95–98. <https://doi.org/10.1016/j.scriptamat.2015.02.022>.

Liu, Xiaodong, dan Frankel, G. S., 2006, Effects of compressive stress on localized corrosion in AA2024-T3, *Corrosion Science*, 48(10), 3309–3329. <https://doi.org/10.1016/j.corsci.2005.12.003>.

Long, H., Gery, D., Carlier, A., Maropoulos. P.G, 2009, Prediction of welding distortion in butt joint of thin plates, *Materials and Design* 30 4126–4135

Lu, Y., Hui, H., dan Gong, J., 2018, Influence of Welding Strength Matching Coefficient and Cold Stretching on Welding Residual Stress in Austenitic Stainless Steel, *Journal of Materials Engineering and Performance*, 27(6), 3131–3143. <https://doi.org/10.1007/s11665-018-3366-y>.

Lynch, S.P., 2008, Failures of structures and components by metal-induced embrittlement, *J. Fail. Anal. Prev.* 8(3) 259–274.

Mathers, G., 2000, Welding of aluminum and its alloys alloys, In *Welding of*

aluminum and its alloys alloys.

- McNelley, T. R., Swaminathan, S., dan Su, J. Q., 2008, Recrystallization mechanisms during friction stir welding/processing of aluminum alloys, *Scripta Materialia*, 58(5), 349–354. <https://doi.org/10.1016/j.scriptamat.2007.09.064>.
- Michaleris, P., 2011, Introduction to Welding Residual Stress and Distortion, in: P. Michaleris, Ed., *Minimization of Welding Distortion and Buckling: Modelling and Implementation*, Woodhead Publishing India Private Ltd, New Delhi.
- Michaleris, P., dan Sun, X., 1997, Finite element analysis of thermal tensioning techniques mitigating weld buckling distortion, *Welding Journal (Miami, Fla)*, 76(11), 451-s.
- Milella, P. P., 2013, *Fatigue and corrosion in metas*, Springer-Verlag Italia, ISBN 978-88-470-2335-2 ISBN 978-88-470-2336-9 (eBook) DOI 10.1007/978-88-470-2336-9
- Mishra, R. S., Ma, Z. Y., 2005, Friction stir welding and processing, *Materials Science and Engineering R: Reports*, 50(1–2), 1–78. <https://doi.org/10.1016/j.mser.2005.07.001>.
- Mishra, R.S., Kumar, P.S.D.L., 2014, *Friction Stir Welding and Processing*, Springer Cham Heidelberg New York Dordrecht London.
- Moghadam, D. G., Farhangdoost, K., dan Nejad, R. M., 2016, Microstructure and Residual Stress Distributions Under the Influence of Welding Speed in Friction Stir Welded 2024 Aluminum Alloy, *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, 47(3), 2048–2062. <https://doi.org/10.1007/s11663-016-0611-3>.
- Moradi, M.M., Aval, H.J., 2018, Jamaati, R., Microstructure and texture evolution of friction stir welded dissimilar aluminum alloys: AA2024 and AA6061, *J. Manuf. Process.* 32 1–10.
- Nayan, N., Mishra, S., Prakash, A., Murty, S. V. S. N., Prasad, M. J. N. V., dan Samajdar, I., 2019, Effect of cross-rolling on microstructure and texture evolution and tensile behavior of aluminium-copper-lithium (AA2195) alloy, *Materials Science and Engineering A*, 740–741(October 2018), 252–261.

<https://doi.org/10.1016/j.msea.2018.10.089>.

- Ni, Y., Liu, Y., Zhang, P., Huang, J., Yu, X., 2022, Thermal cycles, microstructures and mechanical properties of AA7075-T6 ultrathin sheet joints produced by high speed friction stir welding, *Mater. Charact.* 187 111873.
- Nie, L., Wu, Y., Gong, H., Chen, D., Guo, X., 2020, Effect of shot peening on redistribution of residual stress field in friction stir welding of 2219 aluminum alloy, *Materials*, 13(14), 1–13. <https://doi.org/10.3390/ma13143169>.
- Ochi, Y., Masaki, K., Matsumura, T., dan Sekino, T., 2001, Effect of shot-peening treatment on high cycle fatigue property of ductile cast iron, *International Journal of Fatigue*, 23(5), 441–448. [https://doi.org/10.1016/S0142-1123\(00\)00110-9](https://doi.org/10.1016/S0142-1123(00)00110-9).
- Pan, L., Athreya, B.P., Forck, J.A., Huang, W., Zhang, L., Hong, T., Li, W., Ulrich, W., Mach, J.C., 2013, Welding residual stress impact on fatigue life of a welded structure, *Weld. World.* 57 685-691.
- Paris, P.C., Gomez, M.P., Anderson, W.E., 1961, *The Trend in Engineering*, University of Washington, Seattle 13 9-14.
- Pasta, S., dan Reynolds, A. P., 2008, Residual stress effects on fatigue crack growth in a Ti-6Al-4V friction stir weld, *Fatigue and Fracture of Engineering Materials and Structures*, 31(7), 569–580. <https://doi.org/10.1111/j.1460-2695.2008.01258.x>.
- Peel, M., Steuwer, A., Preuss, M., dan Withers, P. J., 2003, Microstructure, mechanical properties and residual stresses as a function of welding speed in aluminium AA5083 friction stir welds, *Acta Materialia*, 51(16), 4791–4801. [https://doi.org/10.1016/S1359-6454\(03\)00319-7](https://doi.org/10.1016/S1359-6454(03)00319-7).
- Perez, N., 2004, *Fracture Mechanics*, Kluwer Academic Publishers, New York, Boston, Dordrecht, London, Moscow, ISBN : 1-4020-7745-9.
- Polmear, I. J., 2006, *Light Alloys From Traditional Alloys to Nanocrystals* (fourth edi). Typeset by Integra Software Services Pvt. Ltd, Pondicherry, India www.integra-india.com Printed in United Kingdom.
- Pouget, G., dan Reynolds, A. P., 2008, Residual stress and microstructure effects on fatigue crack growth in AA2050 friction stir welds, *International Journal*

of Fatigue, 30(3), 463–472. <https://doi.org/10.1016/j.ijfatigue.2007.04.016>.

Prabha, K. A., Putha, P. K., dan Prasad, B. S., 2018, Effect of tool rotational speed on mechanical properties of aluminium alloy 5083 weldments in friction stir welding, *Materials Today: Proceedings*, 5(9), 18535–18543. <https://doi.org/10.1016/j.matpr.2018.06.196>.

Price, D. A., Williams, S. W., Wescott, A., Harrison, C. J. C., Rezai, A., Steuwer, A., Peel, M., Staron, P., dan Koçak, M., 2007, Distortion control in welding by mechanical tensioning, *Science and Technology of Welding and Joining*, 12(7), 620–633. <https://doi.org/10.1179/174329307X213864>.

Prof Bharat Raj Singh., 2012, *A Hand Book on Friction Stir Welding Late Shri Ram Yagya Singh*, . August. <https://doi.org/10.13140/RG.2.1.5088.6244>.

Raja, P., Bojanampati, S., Karthikeyan, R., dan Ganithi, R., 2018, Effect of rotation speed and welding speed on Friction Stir Welding of AA1100 Aluminium alloy, *IOP Conference Series: Materials Science and Engineering*, 346(1), 1–8. <https://doi.org/10.1088/1757-899X/346/1/012060>.

Ramesh, R., Dinaharan, I., Kumar, R., Akinlabi, E. T., 2017, Microstructure and mechanical characterization of friction stir welded high strength low alloy steels, *Materials Science & Engineering A*.

Ritchie, R. O., 1998, Mechanism of Fatigue-Crack Propagation in Ductile and Brittle Materials, *International Journal of Fracture*, 100, 55–83.

Robe, H., Zedan, Y., Chen, J., Monajati, H., Feulvarch, E., Bocher, P., 2015, Microstructural and mechanical characterization of a dissimilar friction stir welded butt joint made of AA2024-T3 and AA2198-T3, *Mater. Charact.* 110 242–251.

Robert W. Messler, J., 2004, Principles of Welding Processes, Physics, Chemistry and Metallurgy, In *WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim* (Issue 18), <https://doi.org/10.1002/9783527617487.ch3>.

Robert W. Messler, J., 1993, *Joining of advanced material*, Butterworth-Heinemann, a division of Reed Publishing (USA) Inc.

Rossini, N.S., Dassisti, M., Benyounis, K.Y., Olabi, A.G., 2012, Methods of measuring residual stresses in components, *Mater. Des.* 35 572–588.

- Roylance, D., 2001, Fatigue. *Department of Materials Science and Engineering Massachusetts Institute of Technology Cambridge, MA 02139, 12*, 187–223. https://doi.org/10.1007/978-3-030-29241-6_7.
- Sakaida, Y., Suzuki, K., Tanaka, K., 2022, Standard of the $\cos\alpha$ method for x-ray stress measurement using two-dimensional detector, ICRS11–11th International Conference on Residual Stresses, Nancy, France.
- Schijve, J., 2010, Fatigue of Structures and Materials, Springer-Verlag, Berlin, pp. 209–253.
- Schmidt, H., Hattel, J., Wert, J., 2004, An analytical model for the heat generation in friction stir welding, *Modelling and Simulation in Materials Science and Engineering, 12(1)*, 143–157. <https://doi.org/10.1088/0965-0393/12/1/013>.
- Semiatin, S.L., Levkulich, N.C., Butler, T.M., 2024, The effect of crystallographic texture on the constant-stress, constant-heating-rate mechanical test, *Metall. Mater. Trans. A 55A* 375–388.
- Shiva Chander, M., Satish Kumar, P., Devaraju, A., 2018, Influence of Tool Rotational speed and Pin Profile on Mechanical and Microstructural Characterization of Friction Stir Welded 5083 Aluminium Alloy, *Materials Today: Proceedings, 5(2)*, 3518–3523. <https://doi.org/10.1016/j.matpr.2017.11.599>.
- Song, J., dan Zhang, Y., 2016, Effect of vibratory stress relief on fatigue life of aluminum alloy 7075-T651, *Advances in Mechanical Engineering, 8(6)*, 1–9. <https://doi.org/10.1177/1687814016654379>.
- Song, Y., Yang, X., Cui, L., Hou, X., Shen, Z., Xu, Y., 2014, Defect features and mechanical properties of friction stir lap welded dissimilar AA2024-AA7075 aluminum alloy sheets, *Materials and Design, 55*, 9–18. <https://doi.org/10.1016/j.matdes.2013.09.062>.
- Soul, F. A., dan Yanhua, Z., 2005, Numerical study of the residual stress field during arc welding with a trailing heat sink, *WIT Transactions on the Built Environment, 84*, 683–692.
- Staley JT, Lege DJ, 1993. Advances in aluminium alloy products for structural applications in transportation, *Journal De Physique III. 3*:179-190.

- Steuwer, A., Peel, M. J., & Withers, P. J., 2006, Dissimilar friction stir welds in AA5083-AA6082: The effect of process parameters on residual stress, *Materials Science and Engineering A*, 441(1–2), 187–196. <https://doi.org/10.1016/j.msea.2006.08.012>.
- Sunnapu, C., dan Kolli, M., 2020, Tool shoulder and pin geometry's effect on friction stir welding: A study of literature, *Materials Today: Proceedings*, 39, 1565–1569. <https://doi.org/10.1016/j.matpr.2020.05.601>.
- Sutton, M. A., Yang, B., Reynolds, A. P., dan Yan, J., 2004, Banded microstructure in 2024-T351 and 2524-T351 aluminum friction stir welds. Part II. Mechanical characterization, *Materials Science and Engineering A*, 364(1–2), 66–74. [https://doi.org/10.1016/S0921-5093\(03\)00533-1](https://doi.org/10.1016/S0921-5093(03)00533-1).
- Thomas, W. M., Nicholas, E. D., 1997, Friction stir welding for the transportation industries, *Materials & Design*, Vol. 18, Nos. 4r6, Pp. 269]273, 1997, 18, 91–96.
- van der Aa, E. M., 2007, *Local cooling during welding: Prediction and control of residual stresses and buckling distortion*. http://www.library.tudelft.nl/ws/search/publications/search/metadata/index.htm?docname=374090%5Cnfile:///X:/My Documents/publicaties/Thesis EllenvdAa June2007/PDF files/Thesis_vanderAa_June2007.pdf.
- Walker, J., Thomas, D. J., dan Gao, Y., 2017, Effects of shot peening and pre-strain on the fatigue life of dual phase Martensitic and Bainitic steels, *Journal of Manufacturing Processes*, 26, 419–424. <https://doi.org/10.1016/j.jmapro.2017.03.010>.
- Wang, F.F., Li, Y. W., Shen, J., Hu, S. Y., dos Santos, J. F., 2015, Effect of tool rotational speed on the microstructure and mechanical properties of bobbin tool friction stir welding of Al–Li alloy, *Materials and Design* 86 933–940.
- Webster, G.A., Ezeilo, A.N., 2001, Residual stress distributions and their influence on fatigue lifetimes, *Int. J. Fatigue* 23 S375-S383.
- Wen, Q., Li, W., Patel, V., Gao, Y., Vairis, A., 2020, Investigation on the Effects of Welding Speed on Bobbin Tool Friction Stir Welding of 2219 Aluminum Alloy, *Metals and Materials International*, 26(12), 1830–1840.

<https://doi.org/10.1007/s12540-019-00450-9>.

Wibowo, H., Ilman, M. N., Iswanto, P. T., dan Muslih, M. R., 2019, Reducing Distortion and Residual Stress Using Dynamically Controlled Low Stress No Distortion and Its Influence on Fatigue Crack Growth Properties of Steel Welded Joints, *Transactions of the Indian Institute of Metals*, 72(1), 143–153.

<https://doi.org/10.1007/s12666-018-1469-7>.

William D. Callister, J., 1991, Materials Science and Engineering An Introduction, In *Journal of Materials Science* (Vol. 26, Issue 14).

<https://doi.org/10.1007/BF01184995>.

William F. Hosford, dan Caddell, R. M., 2007, Metal Forming, Mechanics and Metallurgy, Third Edition, *Cambridge University Press*, Cambridge Univ. Press. Cambridge University Press.

Woo, W., Feng, Z., Wang, X. L., dan David, S. A., 2011, Neutron diffraction measurements of residual stresses in friction stir welding: A review. *Science and Technology of Welding and Joining*, 16(1), 23–32.

<https://doi.org/10.1179/136217110X12731414739916>.

Yadav, V.K., Gaur, V., Singh, I.V., 2022, Combined effect of residual and mean stresses on fatigue behavior of welded aluminum 2024 alloy, *Int. J. Fatigue* 155 106565.

Yang, C., Wu, C. S., dan Shi, L., 2020, Effect of ultrasonic vibration on dynamic recrystallization in friction stir welding, *Journal of Manufacturing Processes*, 56(April), 87–95. <https://doi.org/10.1016/j.jmapro.2020.04.064>.

Yasphal, Jawalkar, C. S., dan Kant, S., 2015, A Review on use of Aluminium Alloys in Aircraft Components, *I-Manager's Journal on Material Science*, 3(3), 33–38. <https://doi.org/10.26634/jms.3.3.3673>.

Yi, B., dan Wang, J., 2021, Mechanism clarification of mitigating welding induced buckling by transient thermal tensioning based on inherent strain theory, *Journal of Manufacturing Processes*, 68(PA), 1280–1294. <https://doi.org/10.1016/j.jmapro.2021.06.044>.

Yu, P., Wu, C. S., Shi, L., 2021, Analysis and characterization of dynamic recrystallization and grain structure evolution in friction stir welding of

aluminum plates. *Acta Materialia*, 207.

<https://doi.org/10.1016/j.actamat.2021.116692>

Zay, K., Maawad, E., Brokmeier, H. G., Wagner, L., Genzel, C., 2011, Influence of mechanical surface treatments on the high cycle fatigue performance of TIMETAL 54M, *Materials Science and Engineering A*, 528(6), 2554–2558. <https://doi.org/10.1016/j.msea.2010.12.064>.

Zhai, M., Wu, C. S., Su, H., 2020, Influence of tool tilt angle on heat transfer and material flow in friction stir welding, *Journal of Manufacturing Processes*, 59(July), 98–112. <https://doi.org/10.1016/j.jmapro.2020.09.038>.

Zhang, J., Feng, X. S., Gao, J. S., Huang, H., Ma, Z. Q., Guo, L. J., 2018, Effects of welding parameters and post-heat treatment on mechanical properties of friction stir welded AA2195-T8 Al-Li alloy, *Journal of Materials Science and Technology*, 34(1), 219–227. <https://doi.org/10.1016/j.jmst.2017.11.033>.

Zhang, Z. H., Li, W.Y., Feng, Y., Li, J.L., Chao, Y.L., 2014, Improving mechanical properties of friction stir welded AA2024-T3 joint by using a composite backplate, *Mater. Sci. Eng. A* 598 312–318.

Feng, Z., 2005, Processes and mechanisms of welding residual stress and distortion
Related titles : *Woodhead Publishing Limited and CRC Press LLC*.

Zhou, C., Yang, X., Luan, G., 2006, *Effect of root flaws on the fatigue property of friction stir welds in 2024-T3 aluminum alloys*. 418, 155–160. <https://doi.org/10.1016/j.msea.2005.11.042>.

Zhou, H., Yi, B., Shen, C., Wang, J., Liu, J., Wu, T., 2022, Mitigation of welding induced buckling with transient thermal tension and its application for accurate fabrication of offshore cabin structure, *Marine Structures*, 81(June 2021), 103104. <https://doi.org/10.1016/j.marstruc.2021.103104>.