

DAFTAR PUSTAKA

- [1] M. R. Zain, J. Junaidi, and F. A. K. Nasution, "Pengaruh penambahan unsur silikon (Si) pada aluminium (Al) Terhadap kekuatan impak material campuran Al-Si," *Bul. Utama Tek.*, vol. 17, no. 3, pp. 253–256, 2022, doi: 10.30743/but.v17i3.5368.
- [2] M. F. Rochmat, Y. Umardani, and S. Nugroho, "Pengaruh penambahan unsur magnesium terhadap sifat mekanis," *J. Tek. Mesin S-I*, vol. 10, no. 1, pp. 31–36, 2022, [Online]. Available: <https://ejournal3.undip.ac.id/index.php/jtm/article/view/34304>
- [3] A. G. Putra, A. Manaf, and D. HP, "Pengaruh elemen paduan dan senyawa terhadap karakteristik paduan magnesium dan aplikasinya-kajian," *J. Tek. Media Pengemb. Ilmu dan Apl. Tek.*, vol. 20, no. 02, pp. 166–179, 2021, [Online]. Available: <http://creativecommons.org/licenses/by/4.0/>
- [4] M. Li and X. W. Lei, "Molecular dynamics studies on mechanical properties and deformation mechanism of graphene/aluminum composites," *Comput. Mater. Sci.*, vol. 211, 2022, doi: 10.1016/j.commatsci.2022.111487.
- [5] P. V. Polyakova and J. A. Baimova, "Molecular dynamics simulation of diffusion in Mg-Al system under pressure," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 1008, no. 1, 2020, doi: 10.1088/1757-899X/1008/1/012052.
- [6] M. Zha, Y. Li, R. H. Mathiesen, R. Bjorge, and H. J. Roven, "Microstructure evolution and mechanical behavior of a binary Al-7Mg alloy processed by equal-channel angular pressing," *Acta Mater.*, vol. 84, pp. 42–54, 2015, doi: 10.1016/j.actamat.2014.10.025.
- [7] P. V. Polyakova, J. A. Pukhacheva, S. A. Shcherbinin, J. A. Baimova, and R. R. Mulyukov, "Fabrication of magnesium–aluminum composites under high-pressure torsion: Atomistic simulation," *Appl. Sci.*, vol. 11, no. 15, 2021, doi: 10.3390/app11156801.
- [8] M. A. Shomad and A. A. Jordianshah, "Pengaruh penambahan unsur magnesium pada paduan aluminium dari bahan piston bekas," *Teknoin*, vol. 26, no. 1, pp. 75–82, 2020, doi: 10.20885/teknoin.vol26.iss1.art8.
- [9] C. Dan, A. Mg, and U. Chassis, "Analisa pengaruh komposisi Cu dan Mg pada Al-Cu dan Al-Mg untuk chassis kendaraan," vol. 25, no. September,

pp. 497–506, 2021.

- [10] A. S. Prabowo, T. Triyono, and I. Yaningsih, “Analisa pengaruh penambahan Mg pada komposit matrik aluminium remelting piston berpenguat sio 2 menggunakan metode stir casting terhadap kekerasan dan densitas,” *Mekanika*, vol. 15, no. 1, pp. 37–43, 2016.
- [11] Andoko, Yanuar, P. Puspitasari, and T. B. Ariestoni, “The effects of artificial-aging temperature on tensile strength, hardness, micro-structure, and fault morphology in alsimg,” *J. Achiev. Mater. Manuf. Eng.*, vol. 98, no. 2, pp. 49–55, 2020, doi: 10.5604/01.3001.0014.1480.
- [12] J. William D. Callister and D. G. Rethwisch, *Material science and engineering an introduction*. United States of America, 2014.
- [13] A. Nurvrianto, “Aluminium (Al) dalam pengecoran logam,” centena. [Online]. Available: <https://cantenan.com/artikel/aluminium-dalam-pengecoran-logam/>
- [14] A. Z. Sultan and N. Hamzah, “Pengaruh solution treatment dan artifial aging terhadap sifat mekanis dan struktur mikro paduan alumunium A383,” *Pros. Semin. Nas. Penelit. dan Pengabdi. Kpd. Masy.*, vol. 2019, pp. 68–77, 2019.
- [15] “Magnesium,” wikipedia. [Online]. Available: <https://id.wikipedia.org/wiki/Magnesium>
- [16] Y. Yang, X. Xiong, J. Chen, X. Peng, D. Chen, and F. Pan, “Research advances of magnesium and magnesium alloys worldwide in 2022,” *J. Magnes. Alloy.*, vol. 11, no. 8, pp. 2611–2654, 2023, doi: 10.1016/j.jma.2023.07.011.
- [17] D. T. Jatmiko, I. Nurdin, and H. Devianto, “Ketahanan korosi paduan Al-Mg 5052 di dalam air pendingin netral mengandung klorida,” *Urania J. Ilm. Daur Bahan Bakar Nukl.*, vol. 21, no. 2, pp. 77–86, 2015, doi: 10.17146/urania.2015.21.2.2263.
- [18] C. Song, B. Dong, S. Zhang, H. Yang, and L. Liu, “Recent progress of Al – Mg alloys : Forming and preparation process , microstructure manipulation and application,” *J. Mater. Res. Technol.*, vol. 31, no. May, pp. 3255–3286, 2024, doi: 10.1016/j.jmrt.2024.07.051.
- [19] catur pramono, *Material teknik*. Yogyakarta: Anom Pustaka, 2020.

- [20] K. S. V. Reddy, S. T. Abraham, M. V. Thottackkad, T. J. Francis, K. V. Shankar, and J. S. Babu, "Investigating the mechanical properties of Al–Si–Mg hypoeutectic alloy using molecular dynamics," *Appl. Phys. A Mater. Sci. Process.*, vol. 130, no. 2, 2024, doi: 10.1007/s00339-023-07230-8.
- [21] K. Vollmayr-Lee, "Introduction to molecular dynamics simulations," *Am. J. Phys.*, vol. 88, no. 5, pp. 401–422, 2020, doi: 10.1119/10.0000654.
- [22] I. Baskes, "and other defects in metals," vol. 29, no. 12, 1984.
- [23] H. Arthur Weldon, "Comparison of symmetry breaking in the canonical and microcanonical ensembles," *Ann. Phys. (N. Y.)*, vol. 193, no. 1, pp. 177–194, 1989, doi: 10.1016/0003-4916(89)90357-6.
- [24] K. Binder, J. Horbach, W. Kob, P. Wolfgang, and V. Fathollah, "Molecular dynamics simulations," *J. Phys. Condens. Matter*, vol. 16, no. 5, pp. 1–40, 2004, doi: 10.1088/0953-8984/16/5/006.
- [25] S. Yang, "Molecular simulation studies of adsorption and separation of gases in nanoporous molecular crystals," no. September, 2019.
- [26] H. A. Luhur P, E. S. Hadi, and W. Amiruddin, "Jurnal teknik perkapalan," *Tek. Perkapalan*, vol. 8, no. 3, pp. 368–374, 2020.
- [27] D. Afdhallano Kukup Restu Negoro, F. Setiawan, and I. Rizki Putra, "Analisis kekuatan tarik material komposit serat karbon dengan metode vacuum infusion dan vacuum bagging," *Tek. STTKD J. Tek. Elektron. Engine*, vol. 9, no. 1, pp. 159–167, 2023, doi: 10.56521/teknika.v9i1.875.
- [28] A. Ubaidillah, M. M. Rosadi, R. E. Pramitasari, and F. S. Hadi, "Pengaruh variasi elektroda dan media pendingin terhadap uji tarik pada baja st 37 menggunakan," vol. 1, no. 6, pp. 112–117, 2024.
- [29] M. Quanjin, M. R. M. Rejab, Q. Halim, M. N. M. Merzuki, and M. A. H. Darus, "Experimental investigation of the tensile test using digital image correlation (DIC) method," *Mater. Today Proc.*, vol. 27, no. January, pp. 757–763, 2020, doi: 10.1016/j.matpr.2019.12.072.
- [30] I. R. M.T., *Proses manufaktur / John A. Schey*. Yogyakarta, 2009.
- [31] H. Chávez Thielemann *et al.*, "From gromacs to lammmps: gro2lam: a converter for molecular dynamics software," *J. Mol. Model.*, vol. 25, no. 6, 2019, doi: 10.1007/s00894-019-4011-x.

- [32] P. Rajendran, R. Rathinasabapathy, S. Chandra Kishore, and S. Bellucci, "Computational-simulation-based behavioral analysis of chemical compounds," *J. Compos. Sci.*, vol. 7, no. 5, pp. 1–13, 2023, doi: 10.3390/jcs7050196.
- [33] A. Stukowski, "Visualization and analysis of atomistic simulation data with OVITO-the Open Visualization Tool," *Model. Simul. Mater. Sci. Eng.*, vol. 18, no. 1, 2010, doi: 10.1088/0965-0393/18/1/015012.
- [34] Z. Syari, "Analisa kekuatan tarik paduan aluminium dengan magnesium pada dudukan shockbreaker ukuran 70 X 30 X 30 mm," *Reaktom Rekayasa Keteknikan dan Optimasi*, vol. 3, no. 1, 2018, doi: 10.33752/reaktom.v3i1.272.
- [35] T. Triwikantoro, Y. N. Rozaqi, and S. Wijayanto, "Pengaruh struktur material paduan berbasis zirkonium terhadap ketahanan korosi dalam larutan HNO₃," *J. Fis. dan Apl.*, vol. 3, no. 2, p. 070206, 2007, doi: 10.12962/j24604682.v3i2.974.

