

DAFTAR PUSTAKA

- Ackland, G. J., & Jones, A. P. (2006). Applications of local crystal structure measures in experiment and simulation. *Physical Review B*, 73(5), 054104. <https://doi.org/10.1103/PhysRevB.73.054104>
- Adcock, S. A., & McCammon, J. A. (2006). Molecular dynamics: Survey of methods for simulating the activity of proteins. *Chemical Reviews*, 106(5), 1589–1615. <https://doi.org/10.1021/cr040426m>
- Allen, M. P. (2004). Introduction to Molecular Dynamics Simulation. *Computational Soft Matter: From Synthetic Polymers to Proteins*, 23, 1–28. <https://doi.org/10.1016/j.cplett.2006.06.020>
- Ardhana, W. (2013). Identifikasi Perawatan Ortodontik Spesialistik dan Umum. *Majalah Kedokteran Gigi*, 20(1), 1–8.
- Arifin, R., Malyadi, M., Munaji, Buntoro, G. A., & Darminto. (2019). Evaluation of melting behaviour of Nickel , Titanium , and NiTi alloy using EAM and MEAM type potential. *Journal of Physics: Conference Series PAPER*. <https://doi.org/10.1088/1742-6596/1171/1/012035>
- Arifin, R., Malyadi, M., Munaji, Buntoro, G. A., & Darminto. (2019). Pressure dependence of the structure of liquid NiTi: a molecular dynamics study. *Journal of Physics: Condensed Matter*, 31(36), 365401. <https://doi.org/10.1088/1361-648X/ab25b4>
- Arifin, R., Malyadi, M., Munaji, Buntoro, G. A., Nurcahyo, A. M. B., Ridwan, ... Selamat. (2019). Glassy NiTi Produced with Different Cooling Times: Structural Investigation Using Molecular Dynamics Simulations. *Result in Physics*, 12–15(4).
- Barras, C. D. J., & Myers, K. A. (2000). Nitinol - Its use in vascular surgery and other applications. *EJVES Extra*, 19(6), 564–569. <https://doi.org/10.1053/ejvs.2000.1111>

- Castro, S. M., Ponces, M. J., Lopes, J. D., Vasconcelos, M., & Pollmann, M. C. F. (2015). Orthodontic wires and its corrosion - The specific case of stainless steel and beta-titanium. *Journal of Dental Sciences*, 10(1), 1–7.
<https://doi.org/10.1016/j.jds.2014.07.002>
- Dawood, N. M., Juber, M., Sami, A., & Adil, H. (2015). Effect of Cooling Rate on the Phase Transformations Behavior and Hardness of NiTi Shape Memory Alloys. *Babylon University*, 23(2). Retrieved from
<https://www.iasj.net/iasj?func=article&aId=103497>
- Elahinia, M. H., Hashemi, M., Tabesh, M., & Bhaduri, S. B. (2012). Manufacturing and processing of NiTi implants: A review. *Progress in Materials Science*, 57(5), 911–946.
<https://doi.org/10.1016/j.pmatsci.2011.11.001>
- Fang, H., Wong, M. B., Bai, Y., & Luo, R. (2015). Effect of heating/cooling rates on the material properties of NiTi wires for civil structural applications. *Construction and Building Materials*, 101, 447–455.
<https://doi.org/10.1016/j.conbuildmat.2015.10.081>
- Fratto, N., & Mamoozadeh, A. (2018). the Aerospace Applications of Nickel-Titanium As a Superelastic Material, 1–9.
- Frenzel, J., George, E., Dlouhy, A., Materialia, C. S.-A., & 2010, undefined. (n.d.). Influence of Ni on martensitic phase transformations in NiTi shape memory alloys. *Elsevier*. Retrieved from
<https://www.sciencedirect.com/science/article/pii/S1359645410001059>
- Hanwell, M. D., Curtis, D. E., Lonie, D. C., Vandermeersch, T., Zurek, E., & Hutchison, G. R. (2012). Avogadro: an advanced semantic chemical editor, visualization, and analysis platform. *Journal of Cheminformatics*, 4(1), 17.
<https://doi.org/10.1186/1758-2946-4-17>
- Hiraga, K., Ohsuna, T., & Sugiyama, K. (1999). Contributed Papers Atom Clusters With Icosahedral Symmetry in Cubic Alloy Phases Related To

Icosahedral Quasicrystals, 16(1).

Hook, J. R., & Hall, H. E. (2010). *Solid State Physics. Manchester Physics Series* (2nd ed.). John Wiley & Sons.

Hoover, W. G. (1985). Canonical dynamics: Equilibrium phase-space distributions. *Physical Review A*, 31(3), 1695–1697.
<https://doi.org/10.1103/PhysRevA.31.1695>

Humphrey, W., Dalke, A., & Schulten, K. (1996). VMD: Visual molecular dynamics. *Journal of Molecular Graphics*, 14(1), 33–38.
[https://doi.org/10.1016/0263-7855\(96\)00018-5](https://doi.org/10.1016/0263-7855(96)00018-5)

Jabbar, A. (2012). *Simulasi Dinamika Molekuler Adsorpsi Hidrogen Pada Carbon Nanotube Dengan Variasi Temperatur*. Universitas Indonesia, Depok.

Kneissl, A. C., Unterweger, E., Bruncko, M., Lojen, G., Mehrabi, K., & Scherngell, H. (2008). Microstructure and properties of NiTi and CuAlNi shape memory alloys. *Metallurgical and Materials Transactions A*, 90–100.

Ko, W. S., Grabowski, B., & Neugebauer, J. (2015). Development and application of a Ni-Ti interatomic potential with high predictive accuracy of the martensitic phase transition. *Physical Review B - Condensed Matter and Materials Physics*, 92(13), 1–22.
<https://doi.org/10.1103/PhysRevB.92.134107>

Le Roux, S., & Jund, P. (2010). Ring statistics analysis of topological networks: New approach and application to amorphous GeS₂ and SiO₂ systems. *Computational Materials Science*, 49(1), 70–83.
<https://doi.org/10.1016/j.commatsci.2010.04.023>

Li, Y., Li, J. H., & Liu, B. X. (2015). The atomic-scale nucleation mechanism of NiTi metallic glasses upon isothermal annealing studied via molecular dynamics simulations. *Physical Chemistry Chemical Physics*, 17(40), 27127–27135. <https://doi.org/10.1039/c5cp04040j>

- Madaj, M., Szurman, I., Drápala, J., Vontorová, J., & Pohludka, M. (2015). Study of properties of niti alloy after electron beam zone melting. *METAL 2015 - 24th International Conference on Metallurgy and Materials, Conference Proceedings*, 1–7.
- Massalski, T. B., Okamoto, H., Subramanian, P. R., & Kacprzak, L. (1990). Binary alloy phase diagrams, 2nd. *ASM International, Ohio*, 2882.
- Mayer, D. (2007). File:Cubic.svg - Wikimedia Commons. Retrieved May 18, 2019, from <https://commons.wikimedia.org/wiki/File:Cubic.svg>
- McQuarrie, D. (1976). *Statistical Mechanics*. New York: Harper & Row.
- Munaji, Sudarno, Purwaningroom, D. L., & Arifin, R. (2017). Performance of EAM and MEAM Potential for NiTi Alloys: A Comparative Study. *IOP Conference Series: Materials Science and Engineering*, 180(1), 012252. <https://doi.org/10.1088/1757-899X/180/1/012252>
- Nosé, S. (1984). A unified formulation of the constant temperature molecular dynamics methods. *The Journal of Chemical Physics*, 81(1), 511–519. <https://doi.org/10.1063/1.447334>
- Pelton, A. R., Russell, S. M., & DiCello, J. (2003). The physical metallurgy of nitinol for medical applications. *JOM*, 55(5), 33–37. <https://doi.org/10.1007/s11837-003-0243-3>
- Plimpton, S. (1995). *Fast Parallel Algorithms for Short-Range Molecular Dynamics*. *Journal of Computational Physics* (Vol. 117). Retrieved from <http://www.cs.sandia.gov/sjplimp/main.html>
- Prokoshkin, S. D., Korotitskiy, A. V, Brailovski, V., Turenne, S., Khmelevskaya, I. Y., & Trubitsyna, I. B. (2004). On the lattice parameters of phases in binary Ti – Ni shape memory alloys. *Acta Materialia*, 52, 4479–4492. <https://doi.org/10.1016/j.actamat.2004.06.007>
- Rokicki, R., Hryniewicz, T., Pulletikurthi, C., Rokosz, K., & Munroe, N. (2015).

Towards a Better Corrosion Resistance and Biocompatibility Improvement of Nitinol Medical Devices. *Journal of Materials Engineering and Performance*, 24(4), 1634–1640. <https://doi.org/10.1007/s11665-015-1429-x>

Sahari, M. B. and B. Bin. (2013). NiTi Shape Memory Alloys, Promising Materials in Orthopedic Applications. *Shape Memory Alloys - Processing, Characterization and Applications*, 261–278. <https://doi.org/10.5772/2576>

Saitoh, K., Kubota, K., & Sato, T. (2010). Atomic-level structural change in Ni-Ti alloys under martensite and amorphous transformations. *Technische Mechanik*, 269–279. Retrieved from http://www.uni-magdeburg.de/ifme/zeitschrift_tm/2010_Heft1_3/23_Saitoh.html

Shabalovskaya, S., Anderegg, J., & Van Humbeeck, J. (2008). Critical overview of Nitinol surfaces and their modifications for medical applications. *Acta Biomaterialia*, 4(3), 447–467. <https://doi.org/10.1016/j.actbio.2008.01.013>

Shimono, M., Tsuchiya, K., & Onodera, H. (2013). Molecular Dynamics Study on Amorphization of TiNi by Severe Plastic Deformation. *Materials Transactions*, 54(9), 1575–1579. <https://doi.org/10.2320/matertrans.MH201311>

Smith, J. M., & Van Ness, H. C. (1975). *Introduction to Chemical Engineering Thermodynamics* (3rd ed., I). Auckland; Singapore: McGraw-Hill.

Stukowski, A. (2010). Visualization and analysis of atomistic simulation data with OVITO-the Open Visualization Tool. *Modelling and Simulation in Materials Science and Engineering*, 18(1). <https://doi.org/10.1088/0965-0393/18/1/015012>

Uehara, T. (2010). *Molecular Dynamics Simulation of Shape-memory Behavior, Shape Memory Alloys*. (C. Cismasiu, Ed.). InTech. Retrieved from <http://www.intechopen.com/books/shape-memory-alloys/molecular-dynamics-simulation-of-shape-memory-behavior>

Vaught, A. (1996). Graphing with Gnuplot and Xmgr. *LINUX JOURNAL*.

Retrieved from <https://www.linuxjournal.com/article/1218>

Wadood, A. (2016). Brief overview on nitinol as biomaterial. *Advances in Materials Science and Engineering*, 2016, 1–9.

<https://doi.org/10.1155/2016/4173138>

Waseda, Y., Matsubara, E., & Shinoda, K. (2011). *X-Ray Diffraction Crystallography*. Springer, Berlin, Heidelberg.

<https://doi.org/https://doi.org/10.1007/978-3-642-16635-8>

William D. Callister, J. (2001). *Fundamentals of Materials Science and Engineering An Interactive e • Text*. (Wayne Anderson, Ed.) (5th ed.). Salt Lake: John Wiley & Sons, Inc. Retrieved from [https://theswissbay.ch/pdf/Gentoomen Library/Electronics/Fundamentals of Materials Science and Engineering 5th Edition.pdf](https://theswissbay.ch/pdf/Gentoomen%20Library/Electronics/Fundamentals%20of%20Materials%20Science%20and%20Engineering%205th%20Edition.pdf)

Wu, M. H. (2002). Fabrication of Nitinol Materials and Components. *Materials Science Forum*, 394–395, 285–292.

<https://doi.org/10.4028/www.scientific.net/MSF.394-395.285>

Yakubovich, A. V., Verkhovtsev, A. V., Hanauske, M., & Solov'Yov, A. V. (2013). Computer simulation of diffusion process at interfaces of nickel and titanium crystals. *Computational Materials Science*, 76, 60–64.

<https://doi.org/10.1016/j.commatsci.2012.12.039>

Zeng, Z.-Y., Hu, C.-E., Cai, L.-C., Chen, X.-R., & Jing, F.-Q. (2011). Molecular dynamics study of the melting curve of NiTi alloy under pressure. *Journal of Applied Physics*, 109(4), 1–6. <https://doi.org/10.1063/1.3548936>

Zhou, X. W., Johnson, R. A., & Wadley, H. N. G. (2004). Misfit-energy-increasing dislocations in vapor-deposited CoFe/NiFe multilayers. *Physical Review B - Condensed Matter and Materials Physics*, 69(14), 1–10.

<https://doi.org/10.1103/PhysRevB.69.144113>