

References

- [1]. A. Kumar, Comprehensive modeling of shape memory alloys for actuation of large-scale structures, PhD dissertation, Civil Engineering, The University of Akron, 2010.
- [2]. J. Mohd Jani, M. Leary, A. Subic, M.A. Gibson, A review of shape memory alloy research, applications and opportunities, *Mater. Des.* (1980–2015), 56, 2014, 1078–1113.
- [3]. C. Song, “History and Current Situation of Shape Memory Alloys Devices for Minimally Invasive Surgery”, *Open Medical Devices Journal* 2, pp 24-31, 2010.
- [4]. A. Ölander, “An electrochemical investigation of solid cadmium-gold alloys”, *Am Chem Soc*; 54, 1932, pp 3819–33.
- [5]. W. J. Buehler, J. V. Gilfrich, R. C. Wiley, “Effect of low-temperature phase changes on the mechanical properties of alloys near composition TiNi”, *Appl Phys*; 34, 1963, pp1475–7.
- [6]. K. Otsuka, C. M. Wayman, *Shape Memory Alloys*, Cambridge University Press, United Kingdom, 1998.
- [7]. M. Kohl, *Shape memory microactuators (microtechnology and MEMS)* 1st ed. Heidelberg: Springer-Verlag Berlin, 2010.
- [8]. O. M. Akselsen, “Joining of shape memory alloys”, *Published by Sciyo Janeza Trdine* 9, 51000 Rijeka, Croatia, ch. 9, pp. 183-209, 2010.
- [9]. Y. Li, “Design and analysis of energy harvesting with shape memory alloy”, MSc Thesis, Electrical Engineering, The University of Akron, 2012.
- [10]. M. István, “Fundamental characteristics and design method for nickel-titanium shape memory alloy”. *Journal of Ser. Mech. Eng.*, 45(1), pp. 75-86, 2001.
- [11]. J. Ryhanen, Biocompatibility Evaluation of Nickel-Titanium Shape Memory Metal Alloy", Ph.D. Thesis, Oulu University, Finland, 1999.
- [12]. Y. H. The, Fast, Accurate Force and Position Control of Shape Memory Alloy Actuators, Ph.D. Thesis, The Australian National University, 2008.
- [13]. E. Zanaboni, One Way and Two Way-Shape Memory Effect: Thermo-Mechanical Characterization of Ni-Ti Wires, MSc Thesis, The University of Pavia, Italy, 2008.
- [14]. J. M. Jani et al, “Designing shape memory alloy linear actuators: A review”, *Journal of Intelligent Material Systems and Structures*, Vol. 28(13) pp. 1699–1718, 2016.
- [15]. J. A. Shaw, “A Thermomechanical Model for a 1-D Shape Memory Alloy Wire with Propagating Instabilities”, *International Journal of Solids and Structures*, Vol. 39, pp. 1275-1305, 2002.

- [16]. C. U. Pons, "Improvement of the one-way and two-way shape memory effects in Ti-Ni shape memory alloys by thermomechanical treatments", Ph.D. dissertation, Department of Mechanical Engineering, Rovira i Virgili University, Spain, 2011.
- [17]. W. Huang, "On the Selection of Shape Memory Alloys for Actuators", *Materials and Design*, Vol. 23, pp. 11-19, 2002.
- [18]. B. Söylemez B., "Design and analysis of a linear shape memory alloy actuator", Ph.D. dissertation, Mechanical Engineering Department, Middle East Technical University, Turkey, 2008.
- [19]. K. Ikuta, M. Tsukamoto and S. Hirose, "Mathematical model and experimental verification of shape memory alloy for designing micro actuator". In *Micro Electro Mechanical Systems, MEMS '91, Proceedings of IEEE: An Investigation of Micro Structures, Sensors, Actuators, Machines and Robots*, 1991, pp 103-108.
- [20]. M. E. Brown, *Handbook of thermal analysis and calorimetry – volume - I principles and practice*, Elsevier science B.V. Sara Burgerhartstraat 25 P.O. Box 211, 1000 AE Amsterdam, The Netherlands, pp 1-28, 1998.
- [21]. A. Arghavani, "Thermo-mechanical behavior of shape memory alloys under multiaxial loadings: constitutive modeling and numerical implementation at small and finite strains", Ph.D. dissertation, Sharif University of Technology, Tehran, Iran, 2010.
- [22]. R. Abeyaratne, J. K. Knowles, "On the driving traction acting on a surface of strain discontinuity in a continuum". *Journal of the Mechanics and Physics of Solids* 38 (3), pp 345-360, 1990.
- [23]. J. M. Ball, R. D. James, "Fine phase mixtures as minimizers of energy". *Archive for Rational Mechanics and Analysis*, pp 13-52, 1987
- [24]. F. Falk, 1980. "Model free-energy, mechanics and thermodynamics of shape memory alloys". *Acta Metallurgica* 28, pp 1773-1780, 1980.
- [25]. F. Falk, "One-dimensional model of shape memory alloys". *Archives of Mechanics*, 35, pp 63-84, 1983.
- [26]. Q. P. Sun, K. C. Hwang, "Micromechanics modelling for the constitutive behavior of polycrystalline shape memory alloys: I - Derivation of general relations, II - Study of the individual phenomena", *Journal of the Mechanics and Physics of Solids* 41 (1), pp 1-17 and pp 19-33, 1993a, 1993b.
- [27]. M. Mehrpouya, and H. C. Bidsorkhi, "MEMS Applications of NiTi Based Shape Memory Alloys: A Review", *Micro and Nanosystems*, 8, pp 79-91, 2016.
- [28]. Y. Fua et al., "TiNi-based thin films in MEMS applications: a review", *Sensors and Actuators A: Physical*, 112, pp. 395–408, 2004.
- [29]. H. Adldoost, "Design of SMA Micro-Gripper for Minimally Invasive Surgery", Department of Mechatronics, International campus, Sharif University of Technology, 2012.

- [30]. J. H. Kyung, B. G. Ko, Y. H. Chunga, “Design of a microgripper for micromanipulation of microcomponents”, *Sensors and Actuators A: Physical*, Volume 141, Issue 01, pp144-150, 2005.
- [31]. K. P. Rathnayake and H. S. Lakmal Perera, “Design and Simulation of a Shape Memory Alloy Based Microgripper for Minimally Invasive Surgery”, *Annual sessions of IESL*, The Institution of Engineers, Sri Lanka, pp. 507-513, 2018.
- [32]. T. A. U. Roshan, Y. W. R. Amarasinghe, N. W. N Dayananda, “Design and Development of a Shape Memory Alloy Spring Actuated Gripper for Minimally Invasive Surgeries”, *International Conference on Artificial Life and Robotics (ICAROB2018)*, Feb. 1-4, B-Con Plaza, Beppu, Oita, Japan, pp. 566-569, 2018.
- [33]. D. C. Lagoudas, *Shape Memory Alloys - Modeling and Engineering Applications*, Springer Science, 2008.
- [34]. T. A. U. Roshan, Y. W. R. Amarasinghe, N. W. N Dayananda, “Design and Fabrication of a Minimally Invasive Surgical Device with Customized Shape Memory Alloy Spring Actuator”, Volume 5, Issue 3, pp194 – 198, Dec 2018.
- [35]. T. W. Duerig, K. Bhattacharya, *The Influence of the R-Phase on the Superelastic Behavior of NiTi*, Springer, Shape Memory and Superelasticity volume 1, pp153–161, May 2015.
- [36]. L. A. Santos et al., “Effects of R-Phase on Mechanical Responses of a Nickel-Titanium Endodontic Instrument: Structural Characterization and Finite Element Analysis”, *Hindawi Publishing Corporation*, [Online], vol. 2016, Available: <http://https://www.hindawi.com/journals/tswj/2016/7617493/>
- [37]. Y. Zheng, Y. Dong, Y. Li, Resilience and life-cycle performance of smart bridges with shape memory alloy (SMA)-cable-based bearings, *Constr Build Mater* 158: pp389–400, Jan 2018.
- [38]. W. Wang, C. Fang, A. Zhang, and X. Liu, (2019, Feb). “Manufacturing and performance of a novel self-centring damper with shape memory alloy ring springs for seismic resilience”, *Structural Control and Health Monitoring*, [Online], vol. 26, issue 6, Available: <https://onlinelibrary.wiley.com/doi/abs/10.1002/stc.2337>.