

ÖZGEÇMİŞ

- 1- Adı Soyadı: NAZIM BABACAN
- 2- Ünvanı: Doctor.

EDUCATION

- 1- Ph.D.

Gazi University, Ankara, TURKEY Department of Mechanical Engineering Dates Attended: March 2013- October 2017

Dissertation: Enhancing Mechanical Properties Of Cu-Al-Mn Shape Memory Alloys

Advisor: Assist.Dr. Osman Selim TURKBAS / Assoc.Dr. Benat KOÇKAR GPA: 3.93/4.00

- 2- M.Sc.

TOBB University of Economics and Technology, Ankara, TURKEY

Department of Mechanical Engineering

Dates Attended: September 2010- February 2013

Dissertation: Finite Element Modelling of Martensitic Phase Transformation

in Shape Memory Alloys Advisor: Assist.Dr. Istemi Baris OZSOY GPA: 3.71/4.00

- 3- B.S.

TOBB University of Economics and Technology, Ankara, TURKEY Department of Mechanical Engineering (Full Scholarship Student) Dates Attended: September 2005- August 2010

Dissertation: Design and Development of a Vehicle Under Landmine Explosions

Advisor: Prof.Dr. Mehmet Ali GULER GPA: 3.45/4.00

EXPERIENCE

- 1- 03/2019 – 03/2021 Postdoctoral Scholar

Leibniz Institute for Solid State and Materials Research (IFW Dresden), GERMANY

Institute for Complex Materials

Alloy Design and Processing Department

- 2- 11/2017 - Present Dr. Research and Teaching Assistant Gazi University, Ankara, TURKEY
Department of Mechanical Engineering

3- 09/2012 - 11/2017 Research and Teaching Assistant Gazi University, Ankara, TURKEY
Department of Mechanical Engineering

4- 09/2015 – 09/2016 Visiting Scholar
Texas A&M University, College Station, TX, U.S.A.
Department of Materials Science and Engineering

5- 09/2010 - 09/2012 Research and Teaching Assistant
TOBB University of Economics and Technology, Ankara
Department of Mechanical Engineering

PUBLICATIONS

- 1- Nazim Babacan, Muhammad Bilal, Ceylan Hayrettin, Jun Liu, Othmane Benafan, Ibrahim Karaman, "Effects of cold and warm rolling on the shape memory response of Ni50Ti30Hf20 high- temperature shape memory alloy". *Acta Materialia*, 2018.
- 2- Nazim Babacan, Ji Ma, Osman Selim Turkbac, Ibrahim Karaman, Benat Kockar, "The effects of cold rolling and the subsequent heat treatments on the shape memory and the superelasticity characteristics of Cu73Al16Mn11 shape memory alloy". *Smart Materials and Structures*, 27
- 3- Nazim Babacan, Kadri Can Atli, Osman Selim Turkbac, Ibrahim Karaman, Benat Kockar, "The effect of dynamic aging on the cyclic stability of Cu73Al16Mn11 shape memory alloy". *Materials Science and Engineering A*, 701 (352-358), 2017.
- 4- Istemi Baris Ozsoy, Nazim Babacan, "Finite element simulations of microstructure evolution in stress-induced martensitic transformations". *International Journal of Solids and Structures*, 81(361- 372), 2016.
- 5- Nazim Babacan, Istemi Baris Ozsoy, "Uniaxial Mechanical Response of Polycrystalline Shape Memory". *Alloys. Applied Mechanics and Materials*, Vol. 390(537-541), 2013.
- 6- Nazim Babacan, Ilkay Gunel, Istemi Baris Ozsoy, "Martensitic Phase Transformations in CuAlNi Shape Memory Alloys". *Advanced Materials Research*, Vol. 445(1076-1081), 2012.

INTERNATIONAL CONFERENCES

- 1- Nazim Babacan, Muhammad Bilal, Ceylan Hayrettin, Ibrahim Karaman, Othmane

Benafan, “The influence of cold and warm rolling on the thermo-mechanical behavior of near-equiatomic NiTiHf₂₀ high-temperature shape memory alloy”, *High Temperature Shape Memory Alloys (HTSMAs 2018)*, Irsee, Germany, 2018.

- 2- Nazim Babacan, Kadri Can Atli, Osman Selim Turkbaz, Ibrahim Karaman, Benat Kockar, “Effect of bainite formation on martensitic transformation and cyclic stability of Cu-Al-Mn shape memory alloys”, *International Conference on Martensitic Transformations (ICOMAT)*, Chicago, U.S.A., 2017.
- 3- Nazim Babacan, Ji Ma, Osman Selim Turkbaz, Ibrahim Karaman, Benat Kockar, “Influence of grain size on superelasticity and actuation properties of Cu-Al-Mn shape memory alloys”, *9th World Congress on Materials Science and Engineering*, Rome, Italy, 2017.
- 4- Nazim Babacan, Bunyamin Comlekci, Kadri Can Atli, Benat Kockar, “Superelastic behaviour of thermomechanically treated Cu-Al-Mn alloys”, *10th European Symposium on Martensitic Transformations (ESOMAT)*, Antwerp, Belgium, 2015.
- 5- Suheyla Yuce Emre, Nazim Babacan, Kadri Can Atli, Benat Kockar, “The effect of the thermo- mechanical treatments on mechanical and superelastic properties of 74.8Ti-25.2Nb (at%) alloys”, *10th European Symposium on Martensitic Transformations (ESOMAT)*, Antwerp, Belgium, 2015.
- 6- Nazim Babacan, Istemi Baris Ozsoy, “Uniaxial Mechanical Response of Polycrystalline Shape Memory Alloys”, *International Conference on Mechanical and Aerospace Engineering (ICMAE)*, Moscow, Russia, 2013.
- 7- Nazim Babacan, Ilkay Gunel, Istemi Baris Ozsoy, “Martensitic Phase Transformations in CuAlNi Shape Memory Alloys”, *International Conference on Advances in Materials & Processing Technologies (AMPT)*, İstanbul, Turkey, 2012.
- 8- Ilkay Gunel, Nazim Babacan, Istemi Baris Ozsoy, “CuAlNi Şekil Hafızalı Alaşımında Martensitik Faz Dönüşümleri”, *International Advanced Technologies Symposium (IATS)* Elazığ, Turkey, 2011.

NATIONAL CONFERENCES

- 1- Mehmet Ali Guler, Nazim Babacan, Ugur Yolum, Yasir Demiryurek, “Simulation of Landmine Explosion using Conwep Method”, *Savunma Teknolojileri Kongresi (SAVTEK)*, Ankara, Turkey, 2010.

SCHOLARSHIPS

- 1- Alexander Von Humboldt Georg Forster Research Fellowship
- 2- TUBITAK BİDEB 2211-A Domestic Doctoral Scholarship
- 3- TUBITAK BİDEB 2214-A International Doctoral Research Scholarship

PROJECTS

- 1- Principal Investigator, Gazi University Scientific Research Projects
“Enhancement of Mechanical Properties of WE43 Magnesium Alloy using Non-isothermal Aging”
- 2- Researcher, Air Force Office of Scientific Research (AFOSR) “Processing of equiatomic and Ti-rich NiTiHf high temperature shape memory alloys”
- 3- Scholar, TUBITAK 3501
“Martensitic Phase Transformation in Inelastic Materials”

COURSES TAUGHT

- 1- ME 313 Introduction to Numerical Analysis ME 103 Computer Aided Technical Drawing
- 2- MM 226 Engineering Mechanics MM 226 Mühendislik Mekaniği

LANGUAGES

- 1- English: Fluent in speaking and writing (e-YDS 2016/11:83.75)
- 2- German: Good basic language