

CURRICULUM VITAE

MEHMET KAYA

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RESEARCHER VISITOR

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EDUCATION

GRADUATE:

**Firat University, 23100 Elazig, Turkey
Dates Attended: September 2002-January 2008
Degree: Ph.D. (Metallurgy Education)**

**Firat University, 23100 Elazig, Turkey
Dates Attended: January 1998-January 2001
Degree: M.S. (Physics)**

UNDERGRADUATE:

**Firat University, Elazig, Turkey
Dates Attended: October 1993-Jun 1997
Degree: B.S. (Physics)**

RESEARCH INTERESTS

Processing-microstructure-mechanical property relationships in shape memory alloys (NiTi, FeMnAlNi, NiTiHf), powder metallurgy, martensitic phase transformation in shape memory alloys, thermal and mechanical activation of martensitic phase transformation, hydrogen storage alloys (MgAl), semiconductor alloys (GaAsSi).

TEACHING AND RESEARCH EXPERIENCE

<i>October 2008 - to date</i>	Assistant Professor Vocational School, Machine Program, Adiyaman University, 02040 Adiyaman, Turkey
Marc 1998- October 2008	Science Teacher Sahinkaya First School, 23600 Elazig, Turkey

EDITORIAL BOARD APPOINTMENTS

HONORS & DISTINCTIONS

Encouragement of scientific publications, 2011- for 1 paper
Encouragement of scientific publications, 2010- for 3 papers
Encouragement of scientific publications, 2009- for 4 papers
Encouragement of scientific publications, 2008- for 2 papers
Encouragement of scientific publications, 2004- for 1 paper
Rewarding salary, Ministry of Education, 2006
Certificate of appreciation, Elazig national education directorate, 2006

PATENTS

CONSULTING

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

JOURNAL REVIEWER

- **Journal of Alloys and Compounds**
- **Material Science and Engineering**
- **Intermetallic**
- **Journal of Civil Engineering and Construction Technology**

INVITED TALKS

SYNERGISTIC ACTIVITIES

PUBLICATIONS

1. **Mehmet Kaya**, A study on microstructure and fabrication of porous Mg-10Al alloy, *Materials and Manufacturing Processes*, Accepted 2011
2. **Mehmet Kaya**, Abdulcelil Bugutekin, Nuri Orhan, Effect of solution treatment on thermal conductivity of porous NiTi SMA, *International Journal of Thermophysics*, in press, DOI : [10.1007/s10765-011-0919-9](https://doi.org/10.1007/s10765-011-0919-9)
3. **Mehmet Kaya**, Abdulcelil Bugutekin, Nuri Orhan, 2010, The effect of porosity on thermal conductivity of the porous NiTi SMA fabricated by SHS, *Optoelectronics and Advanced Materials-Rapid communication*, 4, 8, 1250-1255
4. **Mehmet Kaya**, Nuri Orhan, Gul Tosun, 2010, The effect of the combustion channels on the compressive strength of porous NiTi shape memory alloy fabricated by SHS as implant material, *Current Opinion in Solid State & Materials Science*, 14, 21–25.
5. **Mehmet Kaya**, Nuri Orhan, Gul Tosun, 2010, Phase transformation behaviours of porous NiTi SMA fabricated as hollow and solid cylinders by SHS, *Materials Science and Technology*, 26, 5, 522-527.
6. **Mehmet Kaya**, 2009, Production of single phase Al₁₂Mg₁₇ alloy fabricated by powder metallurgy, *Optoelectronics and Advanced Materials-Rapid communication*, 3, 8, 804-807
7. **Mehmet Kaya**, Nuri Orhan, Bulent Kurt, Tahir I. Khan, 2009, The effect of solution treatment under loading on the microstructure and phase transformation behaviour of porous NiTi shape memory alloy fabricated by SHS, *Journal Alloys and Compounds*, 475, 378-382.
8. **Mehmet Kaya**, Nuri Orhan, Bulent Kurt, Effect of the solution treatment under load on the microstructure and fabrication of porous NiTi shape memory alloy by self-propagating high-temperature synthesis, *Powder Metallurgy*, 52, 1, 36-41.
9. Gul Tosun, Latif Ozler, **Mehmet Kaya**, Nuri Orhan, 2009, A study on microstructure and porosity of NiTi alloy implants produced by SHS, *Journal of Alloys and Compounds*, 487, 605–611.
10. Bulent Kurt, Nuri Orhan, Ilyas Somunkiran, **Mehmet Kaya**, 2009, The effect of austenitic interface layer on microstructure of AISI 420 martensitic stainless steel joined by keyhole PTA welding process, *Materials and Design*, 30, 661-664.

11. Bulent Kurt, Nuri Orhan, **Mehmet Kaya**, 2009, Interface characterization of diffusion bonded Ti–6Al–4V alloy and austenitic stainless steel couple, **Materials Science and Technology**, 25, 4, 556-560.
12. **Mehmet Kaya**, Nuri Orhan, Ilyas Somunkiran, 2008, Effect of porosity on compressive strength of porous NiTi alloy fabricated by powder metallurgy, **J. Fac. Eng. Arch.Gazi Univ.** 23, 4, 931-936.
13. **Mehmet Kaya**, Yusuf Atici, 2004, Studies of lattice mismatch and threading dislocations in GaAs/Si grown by MBE, **Superlattices and Microstructure**, 35, 35-44.
14. **Mehmet Kaya**, Nuri Orhan, Bulent Kurt, 2008, The fabrication of porous NiTi SMA by powder metallurgy and the effect of preheating temperature on pore forming, **Research in the Eastern Anatolia Region, Firat University**, 6, 2, 154-158.

ARTICLES IN REVIEW

1. **Mehmet Kaya**, A new formulation for austenite start temperature of Fe-Mn-Si shape memory alloys using genetic programming, **Computers, Materials, & Continua**,

ARTICLES IN CONFERENCE PROCEEDINGS

CONFERENCE PRESENTATIONS

1. **Mehmet Kaya**, Nuri Orhan, Bulent Kurt, Ilyas Somunkiran, 2009, Wear behaviour of porous NiTi shape memory alloy fabricated by powder metallurgy as implant material, International symposium on advanced technologies (IATS' 09), Karabuk, Turkey, 13-15 May.
2. **Mehmet Kaya**, Nuri Orhan, Gul Tosun, 2008, Fabrication of porous NiTi shape memory alloy as hollow and solid cylinders by self-propagating high-temperature synthesis, 5th International Powder Metallurgy Conference, Ankara-Turkey, Paper ID: 129, TOBB University, 629-640, October 08-12.
3. **Mehmet Kaya**, Nuri Orhan, Ilyas Somunkiran, Bulent Kurt, 2008, The effect of cold compaction pressure on the pore characteristics and phase density of porous NiTi shape memory alloy fabricated by powder metallurgy, 5th International Powder Metallurgy Conference, Ankara-Turkey, Paper ID: 114, TOBB University, 513-523, October 08-12.
4. Gul Tosun, Latif Ozler, **Mehmet Kaya**, Nuri Orhan, 2008, Investigation of porosity of NiTi alloys produced by SHS method, 5th International Powder Metallurgy Conference, Ankara-Turkey, TOBB University Paper ID: 254, 1353-1367, October 08-12.
5. Bulent Kurt, Ilyas Somunkiran, **Mehmet Kaya**, Ertugrul Celik, 2008, "The coating of porous NiTi alloy on CoCrMo PM alloy surface by SHS process" 5th International Powder Metallurgy Conference, Ankara-Turkey, Paper ID: 106, TOBB University, 448-455, October 08-12.

6. Ilyas Somunkiran, Serkan Ozel, **Mehmet Kaya**, Furkan Sarsilmaz, 2008, The effect of compaction pressure on wear resistance and microstructure at Co based Co-Mo-Cr Powder Alloy, 5th International Powder Metallurgy Conference, Ankara-Turkey, 466-474, October 08-12.
7. Y. Atici and M. **Kaya**, 2000, Investigation of GaAs/Si Thin Films by TEM, TFD II. Condensed Matter Physics Congress of the National, Atatürk University-Erzurum, 22-24 June.

COLLABORATORS OVER LAST 48 MONTHS

GRADUATE AND POSTDOCTORAL ADVISORS

GRADUATE AND UNDERGRADUATE THESIS RESEARCH ADVISING

COURSES TAUGHT