

# Prof. AYŞE AYDOĞDU

## Personal Information

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## International Researcher IDs

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## Education Information

Doctorate, Firat University, Institute Of Science, Fizik (Dr), Turkey 1990 - 1996

Postgraduate, Firat University, Institute Of Science, Fizik (YI) (Tezli), Turkey 1987 - 1990

Undergraduate, Firat University, Faculty Of Arts And Sciences, Fizik Mühendisliği Pr., Turkey 1981 - 1985

## Foreign Languages

English, B2 Upper Intermediate

## Dissertations

Doctorate, Şekil hatırlamalı CuAlNi alaşımlarındaki martensitik dönüşümler üzerinde termal yaşlandırma etkileri, Firat University, Institute Of Science, 1996

Postgraduate, Soy Metal Alaşımlarında Termoelastik Martensitik Dönüşümlerinin Kristalografisi, Firat University, Institute Of Science, 1990

## Research Areas

Mechanical Properties, Physical Properties, Biomaterials, Thermal Treatment, Material Characterization, Thermal Properties, Engineering and Technology

## Academic Titles / Tasks

Professor, Gazi University, Fen Fakültesi, Fizik Bölümü, 2012 - Continues

Professor, Gazi University, Atatürk Meslek Yüksekokulu, 2011 - 2012

Professor, Firat University, Faculty Of Science, Department Of Physics, 2006 - 2011

Associate Professor, Firat University, Faculty Of Science, Department Of Physics, 2001 - 2007

Assistant Professor, Firat University, Faculty Of Science, Department Of Physics, 1996 - 2001

Research Assistant, Firat University, Faculty Of Science, Department Of Physics, 1985 - 1996

## Academic and Administrative Experience

Gazi University, Atatürk Meslek Yüksekokulu, Elektrik Ve Enerji Bölümü, 2011 - 2012

Firat University, Fen Fakültesi, Fizik Bölümü, 2007 - 2011

## Advising Theses

AYDOĞDU A., Fabrication Methods Of T Profile Gates For Algan / Gan Hemts (High Electron Mobility Transistors), Postgraduate, U.KÖROĞLU(Student), 2018

AYDOĞDU A., Bakır bazlı şekil hatırlamalı alaşım üretimi ve alaşımların yapısal, termal ve elektriksel özelliklerinin incelenmesi, Doctorate, C.AKSU(Student), 2010

AYDOĞDU A., Kompozit yarı iletkenlerin termal, elektrik ve optik özelliklerinin incelenmesi, Postgraduate, C.AKSU(Student), 2005

AYDOĞDU A., Metal-kompleks yarıiletgen schottky diyotların elektronik özelliklerinin belirlenmesi, Doctorate, F.DAĞDELEN(Student), 2004

AYDOĞDU A., Metal oksitlerin elektriksel ve optiksel özelliklerinin incelenmesi, Postgraduate, N.ADSIZ(Student), 2003

AYDOĞDU A., Şekil hatırlamalı CuAlNi alaşımları üzerinde ısıl işlem etkilerinin incelenmesi, Postgraduate, T.GÖKHAN(Student), 2002

AYDOĞDU A., Şekil hatırlamalı CuAlNi alaşımlarının elektriksel iletkenlerinin incelenmesi, Postgraduate, F.DAĞDELEN(Student), 1999

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Shape memory behavior of Ni(45)Mn(40)Co(5)Sb(10-x)B(x) magnetic shape memory alloys**  
Aydoğdu Y., Turabi A. S., Boddeti B., Saghayan S. E., Aydoğdu A., Kilic G., Abboosh O., Karaca H. E.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.143, no.1, pp.127-137, 2021 (SCI-Expanded)
- II. **The effects of boron addition on the magnetic and mechanical properties of NiMnSn shape memory alloys**  
Aydogdu Y., Turabi A. S., Aydogdu A., Kok M., Yakinci Z. D., Karaca H. E.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.126, no.2, pp.399-406, 2016 (SCI-Expanded)
- III. **The effect of Sn content on mechanical, magnetization and shape memory behavior in NiMnSn alloys**  
Aydogdu Y., Turabi A. S., Kok M., Aydogdu A., Yakinci Z. D., Aksan M. A., Yakinci M. E., Karaca H. E.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.683, pp.339-345, 2016 (SCI-Expanded)
- IV. **The effects of substituting B for Cu on the magnetic and shape memory properties of CuAlMnB alloys**  
Aydogdu Y., Turabi A. S., Aydogdu A., Vance E. D., Kok M., Kirat G., Karaca H. E.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.122, no.7, 2016 (SCI-Expanded)
- V. **Effects of the substitution of gallium with boron on the physical and mechanical properties of Ni-Mn-Ga shape memory alloys**  
AYDOĞDU Y., Turabi A. S., KÖK M., AYDOĞDU A., Tobe H., Karaca H. E.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.117, no.4, pp.2073-2078, 2014 (SCI-Expanded)
- VI. **Thermal Properties, Microstructure and Microhardness of Cu-Al-Co Shape Memory Alloy System**  
AYDOĞDU Y., Kurum F., KÖK M., Yakinci Z. D., AYDOĞDU A.  
TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS, vol.67, no.4, pp.595-600, 2014 (SCI-Expanded)
- VII. **Thermal and magnetic properties of Ni<sub>51</sub>Mn<sub>28.5</sub>Ga<sub>19.5</sub>B magnetic-shape-memory alloy**  
Kok M., Yakinci Z. D., Aydogdu A., Aydogdu Y.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.115, no.1, pp.555-559, 2014 (SCI-Expanded)
- VIII. **Thermal analysis of Cu-14.82 wt% Al-0.4 wt% Be shape memory alloy**  
AKSU CANBAY C., AYDOĞDU A.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.113, no.2, pp.731-737, 2013 (SCI-Expanded)
- IX. **The Investigation of Thermal and Magnetic Properties and Microstructure Analysis of Cu-Al-Mn**

## Shape Memory Alloys

Canbay C. A., Aydogdu A., AYDOĞDU Y.

JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.24, pp.871-877, 2011 (SCI-Expanded)

- X. **Long-term ageing behaviour of martensite in shape memory Cu-Al-Ni alloys**  
Aydogdu A., Aydogdu Y., Adiguzel O.  
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.153, pp.164-169, 2004 (SCI-Expanded)
- XI. **Electrical conductivity and optical properties of copolymers based on 4-vinylpyridine and tetralincyclobutylhydroxyethylmethacrylate**  
Aydogdu Y., Erol I., Yakuphanoglu F., Aydogdu A., Ahmedzade M.  
SYNTHETIC METALS, vol.139, no.2, pp.327-334, 2003 (SCI-Expanded)
- XII. **Solid state electrical conductivity properties of copper complexes of novel oxime compounds containing oxolane ring**  
Aydogdu Y., Yakuphanoglu F., Aydogdu A., Tas E., Cukurovali A.  
MATERIALS LETTERS, vol.57, pp.3755-3760, 2003 (SCI-Expanded)
- XIII. **Electrical and optical properties of semiconducting metal complexes**  
Yakuphanoglu F., Dagdelen F., Aydogdu Y., Aydogdu A., Sekerci M.  
MATERIALS LETTERS, vol.57, pp.3330-3340, 2003 (SCI-Expanded)
- XIV. **The synthesis, characterization, and electrical conductivity of the potassium salt of 1,3-dipiperidin-1-ylpropan-2-O-xanthate**  
Yakuphanoglu F., Gorgulu A., Aydogdu Y., Aydogdu A., Arslan M.  
SYNTHESIS AND REACTIVITY IN INORGANIC AND METAL-ORGANIC CHEMISTRY, vol.33, no.5, pp.911-923, 2003 (SCI-Expanded)
- XV. **Effects of thermal treatments on transformation behaviour in shape memory Cu-Al-Ni alloys**  
Dagdelen F., Gokhan T., Aydogdu A., Aydogdu Y., Adiguzel O.  
MATERIALS LETTERS, vol.57, pp.1079-1085, 2003 (SCI-Expanded)
- XVI. **XRD, SEM studies and electrical properties of metal complexes, including sodium oxalate ligand (Na<sub>2</sub>C<sub>2</sub>O<sub>4</sub>)**  
Aydogdu Y., Yakuphanoglu F., Aydogdu A., Sekerci M., Alkan C., Aksoy I.  
MATERIALS LETTERS, vol.54, pp.352-358, 2002 (SCI-Expanded)
- XVII. **Electrical and optical properties of newly synthesized glyoxime complexes**  
Aydogdu Y., Yakuphanoglu F., Aydogdu A., Tas E., Cukurovali A.  
SOLID STATE SCIENCES, vol.4, no.6, pp.879-883, 2002 (SCI-Expanded)
- XVIII. **Metal complexes of (LH<sub>2</sub>) ligand: 8,9-bis(hydroxyimino)-4,7,10,13-tetraaza-1,2,15,16-O-dicyclopentylidenehexadecane. Crystal structure, electrical and optical properties**  
Aydogdu Y., Yakuphanoglu F., Aydogdu A., Saydam S., Sekerci M., Boydag F.  
SYNTHETIC METALS, vol.122, no.2, pp.329-335, 2001 (SCI-Expanded)
- XIX. **Electrical and optical properties of inorganic complexes C<sub>36</sub>H<sub>76</sub>N<sub>20</sub>ClNa and C<sub>14</sub>H<sub>12</sub>N<sub>20</sub>TeBr<sub>2</sub>**  
Aydogdu Y., Yakuphanoglu F., Aydogdu A., Temel H., Sekerci M., Hosgoren H.  
SOLID STATE SCIENCES, vol.3, no.3, pp.377-382, 2001 (SCI-Expanded)
- XX. **X-ray diffraction studies, electrical and optical properties of some metal complexes of the ligand including 1-amino-3-(N-benzylamino) propane**  
Aydogdu Y., Yakuphanoglu F., Aydogdu A., Sekerci M., Balci Y., Aksoy I.  
SYNTHETIC METALS, vol.107, no.3, pp.191-196, 1999 (SCI-Expanded)
- XXI. **Improvement of hardness and microstructures by ageing in shape memory CuAlNi alloys**  
Aydogdu A., Aydogdu Y., Adiguzel O.  
JOURNAL DE PHYSIQUE IV, vol.7, pp.311-316, 1997 (SCI-Expanded)
- XXII. **The influence of ageing on martensite ordering and stabilization in shape memory Cu-Al-Ni alloys**  
Aydogdu A., Aydogdu Y., Adiguzel O.  
MATERIALS RESEARCH BULLETIN, vol.32, no.5, pp.507-513, 1997 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Temel Radyolojik İnceleme Yöntemlerini Tanıma**  
AYDOĞDU A., AYDOĞDU Y., YAKINCI Z. D.  
İnönü Üniversitesi Sağlık Hizmetleri Meslek Yüksekokulu Dergisi, vol.5, no.2, pp.33-47, 2017 (Peer-Reviewed Journal)
- II. **TEMEL RADYOLOJİK İNCELEME YÖNTEMLERİNİ TANIMA**  
AYDOĞDU Y., AYDOĞDU A., YAKINCI Z. D.  
İnönü Üniversitesi sağlık hizmetleri meslek yüksek okulu dergisi, vol.5, no.2, pp.33-47, 2017 (Peer-Reviewed Journal)
- III. **CuAlCr şekil hatırlamalı Alaşıma Yaşlandırma sıcaklığı ve Yaşlandırma zamanının etkileri**  
KÖK M., YAKINCI Z. D., AYDOĞDU Y., AYDOĞDU A.  
Fırat üniversitesi Mühendislik Bil.Dergisi, vol.29, no.2, pp.9-13, 2017 (Peer-Reviewed Journal)
- IV. **Microstructure electrical and optical characterization of ZnO NiO SiO<sub>2</sub> nanocomposite synthesized by sol gel technique**  
AKSU CANBAY C., AYDOĞDU A.  
Turkish Journal of Science & Technology, vol.4, no.2, pp.121-126, 2009 (Peer-Reviewed Journal)
- V. **The Effect of Ageing on the Martensitic Phase Transformation in CuAlBe Shape Memory Alloy**  
BALO Ş. N., SEL ÖZBEY N., AYDOĞDU A.  
Turkish Journal of Science and Technology, vol.4, no.2, pp.103-109, 2009 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Investigation of Phase Transformation by Temperature Effect on Ni-Mn-Fe-Sn-B Shape Memory Alloys**  
Tok Ç., Aydoğdu A., Aydoğdu Y.  
13th Chemical Physics Congress, , Elazığ, Turkey, 7 - 08 October 2022, pp.43
- II. **The effects of the fourth element on the thermal property and microstructure of the CuAlNi alloy**  
ÇIRAK Z. D., KÖK M., AYDOĞDU Y., AYDOĞDU A.  
PCFM'18- 1ST INTERNATIONAL CONFERENCE ON PHYSICAL CHEMISTRY AND FUNCTIONAL MATERIALS, 19 - 21 June 2018
- III. **Cooling Condition Effects on Thermal and Crystal Structure of NiTiSn Shape Memory Alloy**  
ÇIRAK Z. D., KÖK M., AYDOĞDU Y., AYDOĞDU A.  
PCFM'18- 1ST INTERNATIONAL CONFERENCE ON PHYSICAL CHEMISTRY AND FUNCTIONAL MATERIALS, 19 - 21 June 2018
- IV. **NiTiCo ve NiTiSn şekil hatırlamalı alaşımların dönüşüm sıcaklıklarına ısıl işlem etkisinin incelenmesi**  
KÖK M., AYDOĞDU Y., ÇIRAK Z. D., DAĞDELEN F., AYDOĞDU A.  
Adım fizik günleri 6, 19 - 21 July 2017
- V. **Thermal Procedure effects of CuAlNiTi shape memory alloys**  
KÖK M., DAĞDELEN F., KANCA M. S., AYDOĞDU A.  
THERMAM 2016 3rd International Conference on Thermophysical and Mechanical Properties of Advanced Materials, İzmir, Turkey, 1 - 03 September 2016, pp.13
- VI. **The Change of Thermal and Microstructure Properties of Cu Based HTSMAs**  
AL DALAWI M., DAĞDELEN F., KÖK M., AYDOĞDU A.  
THERMAM 2016 3rd International Conference on Thermophysical and Mechanical Properties of Advanced Materials, İzmir, Turkey, 1 - 03 September 2016, pp.13
- VII. **Ageing Temperature and Ageing Time Effects on Thermal Properties of CuAlCr Shape Memory Alloy**  
YAKINCI Z. D., KÖK M., AYDOĞDU A., AYDOĞDU Y.  
THERMAM 2016 3rd International Conference on Thermophysical and Mechanical Properties of Advanced Materials, İzmir, Turkey, 1 - 03 September 2016, pp.13

- VIII. **Electron concentration effects of CuAlNi shape memory alloy**  
 DAĞDELEN F., KÖK M., BUYTOZ S., AYDOĞDU A.  
 THERMAM 2016 3rd International Conference on Thermophysical and Mechanical Properties of Advanced Materials, İzmir, Turkey, 1 - 03 September 2016, pp.31
- IX. **Effect of B element ratio on thermal properties of NiMn<sub>40</sub>Co<sub>5</sub>Sb<sub>10</sub> xBx alloys**  
 AYDOĞDU Y., AYDOĞDU A., KÖK M., YAKINCI Z. D.  
 THERMAM 2016 3rd International Conference on Thermophysical and Mechanical Properties of Advanced Materials, İzmir, Turkey, 1 - 03 September 2016, pp.7
- X. **Effect of B element ratio on thermal properties of NiMn<sub>40</sub>Fe<sub>5</sub>Sb<sub>10</sub> xBx alloys**  
 AYDOĞDU Y., AYDOĞDU A., YAKINCI Z. D., KÖK M.  
 THERMAM 2016 3rd International Conference on Thermophysical and Mechanical Properties of Advanced Materials, İzmir, Turkey, 1 - 03 September 2016, pp.14-15
- XI. **The Oxidation Behavior of NiTi Based Shape Memory Alloys**  
 KÖK M., AYDOĞDU Y., AYDOĞDU A., ATEŞ G., DAĞDELEN F.  
 IPCAP 2016, International Physics Conference at the Anatolian Peak, Erzurum, Turkey, 25 - 27 February 2016, pp.296
- XII. **The Investigation of Thermal Properties of NiMnCoIn Shape Memory Alloys**  
 AYDOĞDU A., AYDOĞDU Y., YAKINCI Z. D., KÖK M.  
 IPCAP 2016, International Physics Conference at the Anatolian Peak, Erzurum, Turkey, 25 - 27 February 2016, pp.171
- XIII. **Effect of Boron Addition on Thermal Properties of NiMnCoInB Polycrystalline Shape Memory Alloys**  
 AYDOĞDU Y., AYDOĞDU A., KÖK M., YAKINCI Z. D.  
 IPCAP 2016, International Physics Conference at the Anatolian Peak, Erzurum, Turkey, 25 - 27 February 2016, pp.297
- XIV. **Effect of Cr Addition on Martensitic Transformation in High Temperature CuAl based Shape Memory Alloys**  
 YAKINCI Z. D., AYDOĞDU Y., AYDOĞDU A., KÖK M., ŞENER M.  
 IPCAP 2016, International Physics Conference at the Anatolian Peak, Erzurum, Turkey, 25 - 27 February 2016, pp.172
- XV. **The effects of thermal procedure on transformation temperature, crystal structure and microstructure of Cu-Al-Co shape memory alloy**  
 Aydogdu Y., Kok M., Dagdelen F., Aydogdu A., Turabi A. S., Karaca H. E.  
 9th International Conference on Magnetic and Superconducting Materials (MSM), Antalya, Turkey, 30 April - 03 May 2015, vol.667
- XVI. **The change of transformation temperature on NiTi shape memory alloy by pressure and thermal ageing**  
 Kok M., Dagdelen F., Aydogdu A., Aydogdu Y.  
 9th International Conference on Magnetic and Superconducting Materials (MSM), Antalya, Turkey, 30 April - 03 May 2015, vol.667
- XVII. **Magnetic and Shape Memory Properties of NiMnSnB alloys**  
 AYDOĞDU Y., AYDOĞDU A., TURABI A., SOHEIL S., KÖK M., AKSAN M. A., KARACA H.  
 Materials Science & Technology 2015, COLUMBUS, United States Of America, 4 - 08 October 2015
- XVIII. **Effects of boron addition on the physical properties of CuAlMn shape memory alloys**  
 AYDOĞDU Y., KIRAT G., KÖK M., TURABI A. S., AYDOĞDU A., AKSAN M. A., KARACA H. E.  
 MSM15 9 th International Conference on Magnetic and Superconducting Materials, Antalya, Turkey, 30 April - 03 May 2015, pp.69
- XIX. **The effects of composition on the magnetization and shape memory behavior of NiMnSn alloys**  
 AYDOĞDU Y., KÖK M., TURABI A. S., AYDOĞDU A., YAKINCI Z. D., AKSAN M. A., YAKINCI M. E., KARACA H. E.  
 MSM15 9 th International Conference on Magnetic and Superconducting Materials, Antalya, Turkey, 30 April - 03 May 2015, pp.68
- XX. **Electrical and optical properties of ZnO-Fe<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> composite prepared by SOL-GEL method**

Canbay C. A., ALTIN S., Aydogdu A., Aydogdu Y., Yakinci E.

6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.297-298

## **Metrics**

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