

Prof. ERCAN KARAKÖSE

Personal Information

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Education Information

Doctorate, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, Turkey 2005 - 2010

Postgraduate, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, Turkey 2000 - 2004

Undergraduate, Erciyes Üniversitesi, Fen Fakültesi, Fizik Bölümü, Turkey 1996 - 2000

Certificates, Courses and Trainings

Education Management and Planning, Eğitim Yönetimi Semineri, M.E.B. Hizmetiçi Eğitim Dairesi Başkanlığı, 2007

Other, The Professional Metalographer, Struers Company, 2007

Dissertations

Doctorate, Al Esaslı Ağırlıkça %8Ni, %5Nd, %XSi (X=4, 8, 12) İçeren Alaşımların Melt Spinning Yöntemiyle Üretimi ve Karakterizasyonu, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, 2010

Postgraduate, Melt Spining Metoduyla Ağırlıkça %91Al-%6Ni-%2Cu-%1Si Alaşımının Üretilmesi ve Üretilen Numunelerin Fiziksel Özelliklerinin İncelenmesi, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, 2004

Research Areas

Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Natural Sciences

Academic Titles / Tasks

Professor, Kayseri University, Teknik Bilimler Meslek Yüksekokulu, Motorlu Araçlar ve Ulaştırma Teknolojileri Bölümü, 2019 - Continues

Associate Professor, Erciyes University, Motorlu Araçlar Ve Ulaştırma Teknolojisi, 2017 - 2018

Associate Professor, Çankırı Karatekin Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2013 - 2017

Assistant Professor, Çankırı Karatekin Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2010 - 2010

Academic and Administrative Experience

Director of Vocational School, Kayseri University, Teknik Bilimler Meslek Yüksekokulu, -, 2019 - Continues

Head of Department, Kayseri University, Teknik Bilimler Meslek Yüksekokulu, Motorlu Araçlar ve Ulaştırma Teknolojileri Bölümü, 2018 - Continues

Director of Vocational School, Kayseri University, Teknik Bilimler Meslek Yüksekokulu, -, 2018 - 2019

Head of Department, Erciyes University, Teknik Bilimler Meslek Yüksekokulu, Motorlu Araçlar ve Ulaştırma Teknolojileri

Bölümü, 2018 - 2018

Çankırı Karatekin Üniversitesi, 2016 - 2018

Çankırı Karatekin Üniversitesi, Fen Fakültesi, 2014 - 2018

Çankırı Karatekin Üniversitesi, 2016 - 2017

Çankırı Karatekin Üniversitesi, Mühendislik Fakültesi, 2016 - 2017

Çankırı Karatekin Üniversitesi, 2015 - 2017

Erciyes Üniversitesi, 2014 - 2016

Advising Theses

KARAKÖSE E., YÜKSEK DEĞERLİKLİ METAL KATKILI ZNO İNCE FİMLERİNİN ULTRASONİK SPREY PİROLİZ YÖNTEMİ İLE ÜRETİLMESİ, ELEKTRİKSEL VE OPTİK ÖZELLİKLERİNİN BELİRLENMESİ, Postgraduate, Ç.Songür(Student), 2018

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Change of intermetallic phases and mechanical features in rapidly solidified hypereutectic Al-3Ni-3Sb alloy**
KARAKÖSE E., KESKİN M.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.127, no.11, 2021 (Journal Indexed in SCI)
- II. **A comparison of novel metaheuristic algorithms on color aerial image multilevel thresholding**
KURBAN R., Durmus A., KARAKÖSE E.
Engineering Applications of Artificial Intelligence, vol.105, 2021 (Journal Indexed in SCI)
- III. **A comparison of swarm-based optimization algorithms in linear antenna array synthesis**
Durmus A., KURBAN R., KARAKÖSE E.
Journal of Computational Electronics, vol.20, no.4, pp.1520-1531, 2021 (Journal Indexed in SCI)
- IV. **Microstructural and mechanical properties of melt-spun Al-3Ni-3Si alloy**
Karakose E., KESKİN M.
MATERIALS LETTERS, vol.286, 2021 (Journal Indexed in SCI)
- V. **Electrical and Optical Properties of Well-Aligned Ho³⁺-Doped ZnO Nanorods as an Alternative Transparent Conducting Oxide**
ÇOLAK H., KARAKÖSE E.
JOM, 2020 (Journal Indexed in SCI)
- VI. **The Effect of Magnesium Additions on Microstructural, Thermal, and Mechanical Properties of Rapidly Solidified Al-5.5wt.%Zn-x wt.%Mg (x=1, 5) Alloys**
KARAKÖSE E., ÇOLAK H., KESKİN M.
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, vol.29, no.11, pp.7308-7320, 2020 (Journal Indexed in SCI)
- VII. **Comprehensive experimental study on production of vertically aligned ZnO nanorod thin films and their electrical, optical and antimicrobial properties**
ÇOLAK H., KARAKÖSE E., Derin Y., Dertli R.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.31, no.12, pp.9753-9772, 2020 (Journal Indexed in SCI)
- VIII. **Production and examination of ZnO thin film for first time using green synthesized method from aqueous Citrus reticulata peel extract**
Durmuş A., Çolak H., Karaköse E.
Journal of Alloys and Compounds, vol.809, 2019 (Journal Indexed in SCI Expanded)
- IX. **Synthesis and characterization of different dopant (Ge, Nd, W)-doped ZnO nanorods and their CO₂ gas sensing applications**
Çolak H., Karaköse E.

Sensors and Actuators, B: Chemical, vol.296, 2019 (Journal Indexed in SCI)

- X. **Synthesis and structural, electrical, optical properties of Lu³⁺-doped ZnO nanorods**
Çolak H., Karaköse E.
Materials Science in Semiconductor Processing, vol.101, pp.230-237, 2019 (Journal Indexed in SCI)
- XI. **The Morphological Properties and Microhardness of As-Cast and Melt-Spun Al-5Zn-2.5Mg Alloy**
Karakose E., Ibrahim A. M. , KESKİN M.
JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.28, no.6, pp.2645-2652, 2018 (Journal Indexed in SCI)
- XII. **Tm-doped ZnO nanorods as a TCO for PV applications**
Colak H., Karakose E.
JOURNAL OF RARE EARTHS, vol.36, no.10, pp.1067-1073, 2018 (Journal Indexed in SCI)
- XIII. **Effect of consumption of the sol-gel deposited ZnO seed layer on the growth and properties of high quality ZnO nanorods**
Colak H., Karakose E., Kartopu G.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.29, no.14, pp.11964-11971, 2018 (Journal Indexed in SCI)
- XIV. **Structural, electrical, and antimicrobial characterization of green synthesized ZnO nanorods from aqueous Mentha extract**
Karakose E., Colak H.
MRS COMMUNICATIONS, vol.8, no.2, pp.577-585, 2018 (Journal Indexed in SCI)
- XV. **Production of CNT-bearing melt-spun Al-2Sc-0.05CNT alloys**
Kilicaslan M. F. , Karakose E.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.738, pp.182-187, 2018 (Journal Indexed in SCI)
- XVI. **Effect of Sc addition on the microstructure and mechanical properties OF MELT-SPUN Al-10Ni alloys**
Fatih Kilicaslan M., Karakose E.
Archives of Metallurgy and Materials, vol.63, no.2, pp.575-579, 2018 (Journal Indexed in SCI)
- XVII. **PRODUCTION OF MELT-SPUN Al-20Si-5Fe ALLOY AND BORON CARBIDE (B₄C) COMPOSITE MATERIAL**
Kilicaslan M. F. , Uzun A., Karakose E.
ARCHIVES OF METALLURGY AND MATERIALS, vol.63, no.2, pp.597-600, 2018 (Journal Indexed in SCI)
- XVIII. **Structural and optical properties of ZnO nanorods prepared by spray pyrolysis method**
Karakose E., Colak H.
ENERGY, vol.140, pp.92-97, 2017 (Journal Indexed in SCI)
- XIX. **High optoelectronic and antimicrobial performances of green synthesized ZnO nanoparticles using Aesculus hippocastanum**
Colak H., Karakose E., DUMAN F.
ENVIRONMENTAL CHEMISTRY LETTERS, vol.15, no.3, pp.547-552, 2017 (Journal Indexed in SCI)
- XX. **Structural, electrical and optical properties of green synthesized ZnO nanoparticles using aqueous extract of thyme (Thymus vulgaris)**
Colak H., Karakose E.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.28, no.16, pp.12184-12190, 2017 (Journal Indexed in SCI)
- XXI. **Green synthesis and antimicrobial activity of ZnO nanostructures Punica granatum shell extract**
Karakose E., Colak H., DUMAN F.
GREEN PROCESSING AND SYNTHESIS, vol.6, no.3, pp.317-323, 2017 (Journal Indexed in SCI)
- XXII. **Properties of ZnO nanostructures produced by mechanochemical-solid state combustion method using different precursors**
Colak H., Karakose E., Derin Y.
MATERIALS CHEMISTRY AND PHYSICS, vol.193, pp.427-437, 2017 (Journal Indexed in SCI)
- XXIII. **Depth sensing indentation analyses of hypereutectic Al-10Ni – XSc (X = 0, 1, 2) alloys**
Kilicaslan M. F. , Karakose E.
Metals and Materials International, vol.23, no.3, pp.1-8, 2017 (Journal Indexed in SCI)

- XXIV. **Green synthesis and characterization of nanostructured ZnO thin films using Citrus aurantifolia (lemon) peel extract by spin-coating method**
Colak H., Karakose E.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.690, pp.658-662, 2017 (Journal Indexed in SCI)
- XXV. **Effect of substrate temperature on the structural properties of ZnO nanorods**
Karaköse E., Çolak H.
Energy, vol.141, pp.50-55, 2017 (Journal Indexed in SCI Expanded)
- XXVI. **Effect of cooling rate and Mg addition on the structural evaluation of rapidly solidified Al-20wt%Cu-12wt%Fe alloy**
Karakose E., Colak H.
MATERIALS CHARACTERIZATION, vol.121, pp.68-75, 2016 (Journal Indexed in SCI)
- XXVII. **Response of Mg Addition on the Dendritic Structures and Mechanical Properties of Hypoeutectic Al-10Si (Wt Pct) Alloys**
Karakose E., Yildiz M., KESKİN M.
METALLURGICAL AND MATERIALS TRANSACTIONS B-PROCESS METALLURGY AND MATERIALS PROCESSING SCIENCE, vol.47, no.4, pp.2468-2478, 2016 (Journal Indexed in SCI)
- XXVIII. **Formation of novel rice-like intermetallic phases and changes in the mechanical, microstructural and electrical properties of Sn-5Sb alloys with addition Ag and Bi**
Karakose E., Kilicaslan M. F. , Colak H.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.655, pp.378-388, 2016 (Journal Indexed in SCI)
- XXIX. **Effect of microstructural evolution and elevated temperature on the mechanical properties of Ni-Cr-Mo alloys**
Karakose E., KESKİN M.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.619, pp.82-90, 2015 (Journal Indexed in SCI)
- XXX. **Influences of high temperature on the microstructural, electrical and mechanical properties of Ni-23 wt.% Al alloy**
Karakose E., KESKİN M.
INTERNATIONAL JOURNAL OF MATERIALS RESEARCH, vol.106, no.1, pp.29-42, 2015 (Journal Indexed in SCI)
- XXXI. **Impact of beryllium additions on thermal and mechanical properties of conventionally solidified and melt-spun Al-4.5 wt.%Mn-x wt.%Be (x=0, 1, 3, 5) alloys**
Oz T., Karakose E., KESKİN M.
MATERIALS & DESIGN, vol.50, pp.399-412, 2013 (Journal Indexed in SCI)
- XXXII. **Effect of Mn additions on the microstructure and microhardness of as-cast and rapidly solidified Mg-5Ni-5Cu alloy**
Karakose E., KESKİN M.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.367, pp.70-81, 2013 (Journal Indexed in SCI)
- XXXIII. **Investigation of microstructural, mechanical and thermal properties of rapidly solidified Ni-7 wt% Si alloy**
Karakose E., KESKİN M.
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.553, pp.181-191, 2012 (Journal Indexed in SCI)
- XXXIV. **Microstructure evolution and mechanical properties of intermetallic Ni-xSi (x=5, 10, 15, 20) alloys**
Karakose E., KESKİN M.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.528, pp.63-69, 2012 (Journal Indexed in SCI)
- XXXV. **Microstructure properties and microhardness of rapidly solidified Al₆₄Cu₂₀Fe₁₂Si₄ quasicrystal alloy**
Karakose E., KESKİN M.
METALS AND MATERIALS INTERNATIONAL, vol.18, no.2, pp.257-263, 2012 (Journal Indexed in SCI)
- XXXVI. **Microstructures and microhardness evolutions of melt-spun Al-8Ni-5Nd-4Si alloy**
Karakose E., KESKİN M.
MATERIALS CHARACTERIZATION, vol.65, pp.37-47, 2012 (Journal Indexed in SCI)

- XXXVII. **Microstructural evolutions and hardness during heat treatment of Al₆₄Cu₂₀Fe₁₂Si₄ quasicrystal alloy**
Karakose E., KESKİN M.
PHILOSOPHICAL MAGAZINE LETTERS, vol.92, no.7, pp.314-326, 2012 (Journal Indexed in SCI)
- XXXVIII. **Structural investigations of mechanical properties of Al based rapidly solidified alloys**
Karakose E., KESKİN M.
MATERIALS & DESIGN, vol.32, no.10, pp.4970-4979, 2011 (Journal Indexed in SCI)
- XXXIX. **Microhardness and morphologic characteristics of rapidly solidified Al-12Si-8Ni-5Nd alloy**
Karakose E., KESKİN M.
METALS AND MATERIALS INTERNATIONAL, vol.16, no.3, pp.383-391, 2010 (Journal Indexed in SCI)
- XL. **Morphological characteristic of the conventional and melt-spun Al-10Ni-5.6Cu (in wt.%) alloy**
Karakose E., KESKİN M.
MATERIALS CHARACTERIZATION, vol.60, no.12, pp.1569-1577, 2009 (Journal Indexed in SCI)
- XLI. **Effect of solidification rate on the microstructure and microhardness of a melt-spun Al-8Si-1Sb alloy**
Karakose E., KESKİN M.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.479, pp.230-236, 2009 (Journal Indexed in SCI)
- XLII. **Microstructural evolution and microhardness of a melt-spun Al-6Ni-2Cu-1Si (in wt.%) alloy**
Karakose E., KARAASLAN T., KESKİN M., Uzun O.
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.195, pp.58-62, 2008 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

I. Structure and mechanical properties of Al-3Fe rapidly solidified alloy

Karakose E., KESKİN M.

International Conference on Advances in Materials and Processing Technologies, Paris, France, 24 - 27 October 2010, vol.1315, pp.645-646

Supported Projects

KARAKÖSE E., TUBITAK Project, Yüksek Değerlikli Metal Katkılı Zn İnce Filmlerinin Ultrasonik Sprey Piroliz Yöntemi İle Üretilmesi, Elektriksel Ve Optik Özelliklerinin Belirlenmesi, 2015 - 2017

Scientific Refereeing

MATERIALS LETTERS, SCI Journal, November 2021

• JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIAL JOIP-D-13-00052), SCI Journal, February 2017

JOURNAL OF ALLOYS AND COMPOUNDS (JALCOM-D-12-01634, JALCOM-D-12-05999, JALCOM-D-14-05533, JALCOM-D-14-05533, JALCOM-D-14-07719, JALCOM-D-15-01673, JALCOM-D-15-08738), SCI Journal, January 2017

• The Journal of Physical Chemistry, jp-2017-02281e, SCI Journal, January 2017

• INTERNATIONAL JOURNAL OF MODERN PHYSICS B (JPB20074538, JPB20074119, JPB20073808R1, JPB20074538, JPB20074547R1), SCI Journal, January 2017

Journal of Non-Crystalline Solids (OC-D-17-00701R2), SCI Journal, January 2017

• JOURNAL OF ALLOYS AND COMPOUNDS (JALCOM-D-16-02073, JALCOM-D-16-06918, JALCOM-D-16-09734, JALCOM-D-17-03505), SCI Journal, January 2017

• MATERIALS CHARACTERIZATION (MTL-9726R1, MTL-6020R1), SCI Journal, February 2015

• INTERNATIONAL JOURNAL OF MATERIALS RESEARCH (MR4205), SCI Journal, February 2015

• MATER SCI and ENG. A (MSEA-D-13-02315, D-14-02947, D-15-075246), SCI Journal, February 2015

- MATER. CHEM. PHYS.(D-10-03373R1, D-10-03373, D-10-01236, D-09-03375, D-09-02802, D-09-01293R1, D-09-01293), SCI Journal, February 2015
- J. MATER. PROCESS. TECH.(D-07-01386R1, D-07-00037), SCI Journal, February 2014

Citations

Total Citations (WOS):336

h-index (WOS):11