

**ÖZNUR ÇAKIR**  
**ASSOC. PROF.**

Email : [ocakir@yildiz.edu.tr](mailto:ocakir@yildiz.edu.tr)

Other Email :

[oznur.cakir@tenmak.gov.tr](mailto:oznur.cakir@tenmak.gov.tr)

Mobile Phone : [+90 530](tel:+905303077300)

[307 7300](tel:+905303077300)



### Learning Knowledge

Doctorate 2000 - 2006	Ankara University, Faculty Of Engineering, Department Of Physics Engineering, Turkey
Postgraduate 1997 - 2000	Ankara University, Faculty Of Engineering, Department Of Physics Engineering, Turkey
Undergraduate 1991 - 1996	Ankara University, Faculty Of Engineering, Department Of Physics Engineering, Turkey

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Measurement and Evaluation, fullproof XRD analysis, Materials Science - TU Darmstadt, 2005

Other, X-Ray Powder Diffractometer, Rigaku Application Laboratory, 1998

### Dissertations

Postgraduate, Antiperovskite mangan karbür sistemlerin üretimi ve manyetik özelliklerinin incelenmesi , Yıldız Teknik Üniversitesi, Kimya Metalürji Fakültesi, Metalürji Mühendisliği, 2012

Postgraduate, Paslanmaz çelikler ve üretim yöntemlerinin incelenmesi , Yıldız Teknik Üniversitesi, 2012

### Supported Projects

1. Çakır Ö., Energy and Natural Resources Ministry, Yerli Kalıcı Mıknatıs Üretim Sistemlerinin Geliştirilmesi, 2022 - 2025

2. GÜVEN ÖZDEMİR Z., KILIÇ M., KAHYA N. D., ÇAKIR Ö., SÜNGÜ MISIRLIOĞLU B., Project Supported by Higher Education Institutions, BAKIR FERRİT TEMELLİ NANO KOMPOZİTLERİN ÜRETİMİ, DİELEKTRİK ve MANYETİK ÖZELLİKLERİNİN KARAKTERİZASYONLARI, 2017 - 2020
3. Çakır Ö., Acet M., Other International Funding Programs, Novel caloric materials by mastering hysteresis: Conventional and Inverse caloric effects in systems with narrow thermal hysteresis, 2012 - 2018

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

1. **Microstructural Investigation of Discarded NdFeB Magnets After Low-Temperature Hydrogenation**  
Habibzadeh A., Kucuker M. A., Çakır Ö., Göknelma M.  
Journal of Sustainable Metallurgy, 2024 (SCI-Expanded)
2. **Toxicity and energy storage properties of magnesium oxide doped cobalt ferrite nanocomposites for biomedical applications**  
Süngü Mısırlıoğlu B., Kurt V., Çalık H., Çakır Ö., Çakır Koç R.  
APPLIED PHYSICS A: MATERIALS SCIENCE AND PROCESSING, vol.129, pp.1-9, 2023 (SCI-Expanded)
3. **Investigation of magnetite concentrate utilization as reinforcement in aluminum matrix composites**  
Bırol B., Süngü Mısırlıoğlu B., Çakır Ö.  
JOURNAL OF COMPOSITE MATERIALS, vol.56, no.25, pp.3897-3910, 2022 (SCI-Expanded)
4. **Assessment of structural and cytotoxic properties of cobalt ferrite nanoparticles for biomedical applications**  
SÜNGÜ MISIRLIOĞLU B., ÇAKIR Ö., ÇALIK H., Çakir-Koc R.  
INORGANIC AND NANO-METAL CHEMISTRY, vol.52, no.1, pp.57-62, 2022 (SCI-Expanded)
5. **Dielectric and magnetic properties of CuFe<sub>2</sub>O<sub>4</sub>/ CuO nanocomposites**  
Kılıç M., Kahya N. D., Süngü Mısırlıoğlu B., Çakır Ö., Güven Özdemir Z.  
Ferroelectrics, vol.571, no.1, pp.183-189, 2021 (SCI-Expanded)
6. **Heterogeneous magnetism and kinetic arrest in antiperovskite Mn<sub>3-x</sub>NixGaC compounds with Ni<sub>2</sub>MnGa Heusler insertions**  
ÇAKIR Ö., Dias E., Priolkar K. R., Hoser A., Farle M., Acet M.  
PHYSICAL REVIEW B, vol.102, no.2, 2020 (SCI-Expanded)
7. **A transition in the electrical conduction mechanism of CuO/CuFe<sub>2</sub>O<sub>4</sub> nanocomposites**  
Ozdemir Z. G., Kılıç M., Karabul Y., Misirlioglu B., Çakır Ö., Kahya N. D.  
JOURNAL OF ELECTROCEAMICS, vol.44, pp.1-15, 2020 (SCI-Expanded)
8. **Dynamics of nonergodic ferromagnetic/antiferromagnetic ordering and magnetocalorics in antiperovskite Mn<sub>3</sub>SnC**  
ÇAKIR Ö., Cugini F., Solzi M., Priolkar K., Acet M., Farle M.  
PHYSICAL REVIEW B, vol.96, no.1, 2017 (SCI-Expanded)
9. **Magnetic correlations in the magnetocaloric materials Mn<sub>3</sub>GaC and Mn<sub>3</sub>GaC<sub>0.85</sub>N<sub>0.15</sub> studied by neutron polarization analysis and neutron depolarization**  
Çakır Ö., Acet M., Farle M., Wildes A.  
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.28, no.13, 2016 (SCI-Expanded)
10. **Kinetic arrest in magnetically inhomogeneous C-deficient Mn<sub>3</sub>GaC**  
ÇAKIR Ö., Acet M., Farle M., Dias E., Priolkar K.  
JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, vol.390, pp.96-99, 2015 (SCI-Expanded)
11. **Effect of local structural distortions on magnetostructural transformation in Mn<sub>3</sub>SnC**  
Dias E., Priolkar K., Das A., Aquilanti G., ÇAKIR Ö., Acet M., Nigam A. K.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.48, no.29, 2015 (SCI-Expanded)
12. **Dependence of the inverse magnetocaloric effect on the field-change rate in Mn<sub>3</sub>GaC and its relationship to the kinetics of the phase transition**  
Scheibel F., Gottschall T., Skokov K., Gutfleisch O., Ghorbani-Zavareh M., Skourski Y., Wosnitza J., ÇAKIR Ö., Farle M., Acet M.

- JOURNAL OF APPLIED PHYSICS, vol.117, no.23, 2015 (SCI-Expanded)
13. **The structural, magnetic, and magnetocaloric properties of In-doped Mn<sub>2-x</sub>Cr<sub>x</sub>Sb**  
Tekgöl A., ÇAKIR Ö., Acet M., Farle M., Ünal N.  
JOURNAL OF APPLIED MATHEMATICS, vol.118, pp.153903-153909, 2015 (SCI-Expanded)
  14. **Effect of composition on magnetocaloric properties of Mn<sub>3</sub>Ga(1-x)Sn<sub>x</sub>C**  
Dias E., Priolkar K., ÇAKIR Ö., Acet M., Nigam A.  
JOURNAL OF APPLIED PHYSICS, vol.117, pp.123901-123908, 2015 (SCI-Expanded)
  15. **Neutron diffraction study of the magnetic-field-induced transition in Mn<sub>3</sub>GaC**  
ÇAKIR Ö., Acet M., Farle M., Senyshyn A.  
JOURNAL OF APPLIED PHYSICS, vol.115, no.4, 2014 (SCI-Expanded)
  16. **Adiabatic temperature change around coinciding first and second order magnetic transitions in Mn<sub>3</sub>Ga(C<sub>0.85</sub>N<sub>0.15</sub>)**  
ÇAKIR Ö., Acet M.  
JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, vol.344, pp.207-210, 2013 (SCI-Expanded)
  17. **Reversibility in the inverse magnetocaloric effect in Mn<sub>3</sub>GaC studied by direct adiabatic temperature-change measurements**  
ÇAKIR Ö., Acet M.  
APPLIED PHYSICS LETTERS, vol.100, no.20, 2012 (SCI-Expanded)
  18. **Magnetic properties of the HoMn<sub>6-x</sub>Fe<sub>x</sub>Sn<sub>6</sub> compounds**  
Cakir O., Dincer I., Duman E., Krenke T., Elmali A., Elerman Y.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.441, pp.19-22, 2007 (SCI-Expanded)
  19. **Magnetic phase transitions in the Gd<sub>1-x</sub>Tm<sub>x</sub>Mn<sub>6</sub>Sn<sub>6</sub> compounds**  
Cakir O., Dincer I., Elmali A., Elerman Y., Ehrenberg H., Fuess H.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.416, pp.31-34, 2006 (SCI-Expanded)
  20. **Magnetic study of intermetallic Ce<sub>1-x</sub>Tb<sub>x</sub>Mn<sub>2</sub>Ge<sub>2</sub> (0 ≤ x ≤ 1) compounds**  
Cakir O., Dincer İ., Elmali A., Duman E., Elerman Y.  
JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, vol.295, no.3, pp.235-240, 2005 (SCI-Expanded)
  21. **Investigation of magnetic phase transitions in HfFe<sub>6</sub>Ge<sub>6</sub>-type Gd<sub>1-x</sub>Er<sub>x</sub>Mn<sub>6</sub>Sn<sub>6</sub> intermetallics**  
Cakir O., Dincer I., Elmali A., Elerman Y., Ehrenberg H., Fuess H.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.396, pp.18-21, 2005 (SCI-Expanded)
  22. **Influence of the Ni substitution for Co on 4f-3d interactions in ErCo<sub>10-x</sub>Ni<sub>x</sub>Si<sub>2</sub> (0 ≤ x ≤ 10)**  
Cakmak D., Elmali A., Elerman Y., Cakir O.  
SOLID STATE COMMUNICATIONS, vol.131, pp.241-243, 2004 (SCI-Expanded)
  23. **Crystal structure of N,N'-bis(4-hydroxysalicylidene)-1,2-phenylenediimine, methanol solvate**  
Cakir O., Elerman Y., Elmali A.  
ANALYTICAL SCIENCES, vol.18, no.3, pp.377-378, 2002 (SCI-Expanded)

### Refereed Congress / Symposium Publications in Proceedings

1. **THE EFFECT OF COBALT DOPING ON THE CYTOTOXICITY OF IRON OXIDE NANOPARTICLES ON FIBROBLAST AND GASTRIC CANCER CELLS**  
Çalık H., Çakır Koç R., Kahya N. D., Kurt V., Süngü Mısırlıoğlu B., Çakır Ö.  
TURKISH PHYSICAL SOCIETY 37TH INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 1 - 05 September 2021, pp.121
2. **The Structural and Magnetization Analysis of Co substituted Iron Oxide Nanoparticles**  
Kurt V., Çakır Ö., Kahya N. D., Süngü Mısırlıoğlu B.  
8th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG-2021), Hatay, Turkey, 14 - 16 July 2021, pp.161
3. **A Comparison Study of Synthesis and Structural Analyses of Magnesium Oxide Doped Cobalt Ferrite Nanocomposites**

Kurt V., Süngü Mısırlıoğlu B., Çakır Ö., Kahya N. D., Aşıkoğlu Bozkurt A.

Turkish Physical Society 35rd International Physical Congress, Muğla, Turkey, 4 - 08 September 2019, pp.185-0

4. **Temperature Dependent Magnetization and Dielectric Properties of Copper Ferrite/Copper Oxide Nano Composites**  
KILIÇ M., GÜVEN ÖZDEMİR Z., SÜNGÜ MISIRLIOĞLU B., ÇAKIR Ö., KAHYA N. D., ACET M.  
3rd International Conference on Organic Electronic Material Technologies (OEMT2018), 20 - 22 September 2018
5. **Dielectric Spectra of Copper Ferrite/Copper Oxide Nano Composites**  
Güven Özdemir Z., Kılıç M., Süngü Mısırlıoğlu B., Çakır Ö., Kahya N. D.  
2nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'17), Nevşehir, Turkey, 11 - 13 October 2017, pp.125
6. **Towards an understanding of the basic mechanism of hysteresis at a first-order magneto-structural transition**  
Schiebel F., Çakır Ö., Gottschall T., Zavareh M. G., Cugini F., Mejia C. S., Tekgül A.  
German Physical Society (DPG), Dresden, Germany, 19 - 24 March 2017
7. **Adiabatic temperature changes under varying field application rates and neutron polarization analysis in the magnetocaloric materials Mn<sub>3</sub>GaC and Mn<sub>3</sub>GaC<sub>0.85</sub>N<sub>0.15</sub>**  
Çakır Ö., Scheibel F., Cugini F., Solzi M., Acet M.  
7th International Conference on Magnetic Refrigeration at Room Temperature (Thermag VII), Turin, Italy, 11 - 14 September 2016, pp.352
8. **Hysteresis in magnetocalorics**  
Çakır Ö., Acet M.  
Winton Meeting on Caloric Materials, London, United Kingdom, 10 - 11 February 2016, pp.7
9. **Importance of local structural distortions in magnetocaloric effect in Mn based antiperovskites**  
Priolkar K. R., Dias E. T., Aquilanti G., ÇAKIR Ö., Acet M., Nigam A. K.  
16th International Conference on X-ray Absorption Fine Structure (XAFS), Karlsruhe, Germany, 23 - 28 August 2015, vol.712
10. **Heusler Alaşımalarında Manyetik Olmayan Element Katkısının Manyetik ve Manyetokalorik Özellikler Üzerine Etkisi**  
Çakır Ö., Dinçer İ., Kaya M.  
21. Yoğun Madde Fiziği Ankara Toplantısı, Ankara, Turkey, 25 December 2015, pp.36
11. **Investigation of the relation between hysteresis and ferromagnetism in Mn<sub>3</sub>GaC**  
Çakır Ö.  
energy materials and nanotechnology, Donostia, Spain, 1 - 04 September 2015, pp.20
12. **TH.C-P82 - Investigation of the relation between hysteresis and ferromagnetism in Mn<sub>3</sub>GaC**  
Çakır Ö.  
July 2015, 20th International Conference On Magnetism ICM, Barcelona, Spain, 5 - 10 July 2015, pp.1766
13. **Magnetic properties and the inverse magnetocaloric effect in Mn<sub>3</sub>Ga<sub>1-x</sub>PtxC and Mn<sub>3</sub>Ga(C,N) at the magnetostructural transition**  
Çakır Ö., Acet M.  
joint European Magnetic Symposia , Parma, Italy, 9 - 14 September 2012, pp.463
14. **Inverse Magnetocaloric Effect in Mn<sub>3</sub>GaC at the Thermally Hysteretic Magnetostructural Transition**  
Çakır Ö., Acet M.  
smart materials structure systems, Florence, Italy, 10 - 14 June 2012, pp.75
15. **Magnetic Study of Intermetallic Ce<sub>1-x</sub>TbxMn<sub>2</sub>Ge<sub>2</sub> (0 "x" 1) Compounds**  
Çakır Ö., Elerman H. Y., Elmalı A., Dinçer İ.  
IUCr XX (XX Congress and General Assembly of the IUCr), Florence, Italy, 23 - 31 August 2005, pp.323
16. **Gd<sub>1-x</sub>Er<sub>x</sub>Mn<sub>6</sub>Sn<sub>6</sub> ve Gd<sub>1-x</sub>Tm<sub>x</sub>Mn<sub>6</sub>Sn<sub>6</sub> İntermetalik Bileşiklerinin Magnetik Faz Geçişlerinin İncelenmesi**  
Çakır Ö.  
11.Yoğun Madde Fiziği Ankara Toplantısı, Ankara, Turkey, 03 December 2004, pp.22

## Mobility Activity

Other, Guest Researcher, Universitaet Duisburg Essen, Germany, 2018 - 2019

Other, Guest Researcher, SOLEIL I(national research facility), France, 2013 - 2013

Other, Guest Researcher, ILL Laue-Langevin, France, 2013 - 2013

Post Doc, Post Doc, Universitaet Duisburg Essen, Germany, 2011 - 2011

Bilateral Colloboration Agreement, Guest Researcher, Technische Universitaet Darmstadt, Germany, 2005 - 2005

Other, Student Mobility, Technische Universitaet Darmstadt, Germany, 2004 - 2004

Other, Get Education, RIGAKU XRD UYGULAMA LABORATUVARI, Japan, 1998 - 1998

## Metrics

Publication: 39

Citation (WoS): 166

Citation (Scopus): 170

H-Index (WoS): 9

H-Index (Scopus): 9

## Invited Talks

Mn<sub>3</sub>GaC Antipervoskite Bileşigindeki Magneto-yapısal Faz Geçişinin Magnetokalorik Etki Açısından Nötron Kırınım Deneyleri ile İncelenmesi, Conference, 16. Yoğun Madde Fiziği Ankara Toplantısı, Hacettepe Üniversitesi, , Turkey, December 2014

## Research Areas

Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences