

**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 Mıknats Üretim Sistemlerinin Geliştirilmesi, 2022 - 2025

2. 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, vol.10, no.3, pp.1141-1155, 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., Cakir-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 ELECTROCERAMICS, 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**  
Cakr O., 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**  
Tekgül 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

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, 6. 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