

## Asst. Prof. MUAMMER YASİN HACISALİHOĞLU

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-0795-2931

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### Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Fizik Anabilimdalı, Turkey 2011 - 2017

Doctorate, Università Degli Studi di Roma La Sapienza, Facoltà Di Scienze Matematiche, Fisiche E Naturali, Dipartimento Di Fisica , Italy 2015 - 2016

Doctorate, Università Degli Studi di Roma La Sapienza, Facoltà Di Scienze Matematiche, Fisiche E Naturali, Dipartimento Di Fisica , Italy 2014 - 2015

Doctorate, Università Degli Studi di Roma La Sapienza, Facoltà Di Scienze Matematiche, Fisiche E Naturali, Dipartimento Di Fisica , Italy 2014 - 2014

Postgraduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Fizik Anabilimdalı, Turkey 2008 - 2011

Postgraduate, Leibniz Institute For Solid State And Materials Research (Ifw), Institute For Solid State Research, Synthesis And Crystal Growth Research Group (Iff12), Germany 2010 - 2010

Undergraduate, Ege University, Fen-Edebiyat Fakültesi, Fizik Bölümü, Turkey 2004 - 2008

### Foreign Languages

English, C1 Advanced

German, A1 Beginner

Italian, B1 Intermediate

### Certificates, Courses and Trainings

Other, Fizik ve Yenilikçi Teknolojiler Çalıştayı, Recep Tayyip Erdoğan Üniversitesi, 2014

Education Management and Planning, Temel ve Uygulamalı Bilimlerde Araştırma Projesi Hazırlama Eğitimi, TÜBİTAK, 2014

Education Management and Planning, International Spring School and Educational Courses (On Superconductivity and Magnetism), İnönü Üniversitesi, 2010

IT, MATLAB Fundamentals, Fıe Computer Simulation in Physics and Geometry A. S., 2010

### Dissertations

Doctorate, DEMİR TABANLI VE BENZER YAPILI SÜPERİLETKENLERE ELEMENTEL KATKININ NANOBOYUTTA YAPISAL DÜZENSİZLİKLERE ETKİSİNİN İNCELENMESİ, Karadeniz Technical University, Güneysu Fizik Tedavi ve Rehabilitasyon Yüksekokulu, Fizik Bilim Dalı, 2017

Postgraduate, Te KATKILI FeSe TİPİ SÜPERİLETKENLERİN YAPISAL VE MANYETİK ÖZELLİKLERİ, Karadeniz Technical University, Güneysu Fizik Tedavi ve Rehabilitasyon Yüksekokulu, Fizik Anabilimdalı, 2011

## Research Areas

Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Structure of Liquids and Solids; Crystallography, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electronic structure of bulk material, Magnetic Properties and Materials, Optical Properties, Spectroscopy of Matter, Superconductivity, Natural Sciences

## Academic Titles / Tasks

Research Assistant, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Fizik Bölümü, 2008 - Continues

## Academic and Administrative Experience

Recep Tayyip Erdogan University, Fizik Bölümü (Yök Akademik Teşvik), 2017 - 2019

Recep Tayyip Erdogan University, Fizik Bölümü (Erasmus), 2013 - 2014

## Courses

Genel Fizik Laboratuvarı II (Çeşitli Dönemlerde 9 kez), Undergraduate, 2021 - 2022

Genel Fizik Laboratuvarı I (Çeşitli Dönemlerde 8 kez), Undergraduate, 2021 - 2022

Modern Fizik Laboratuvarı (1 kez), Undergraduate, 2021 - 2022

Basic Information Technologies I, Undergraduate, 2020 - 2021

Elektromagnetik Teori (Uygulama) (1 kez), Undergraduate, 2017 - 2018

Mekanik Laboratuvarı (Çeşitli Dönemlerde 3 kez), Undergraduate, 2017 - 2018

Mühendislik Fiziği I (Uygulama) (1 kez), Undergraduate, 2017 - 2018

Genel Fizik II (Uygulama) (Çeşitli Dönemlerde 2 Kez), Undergraduate, 2017 - 2018

Mühendislik Fiziği II (Uygulama) (1 kez), Undergraduate, 2017 - 2018

Optik Laboratuvarı (1 kez), Undergraduate, 2017 - 2018

Genel Fizik I (Uygulama) (Çeşitli Dönemlerde 2 Kez), Undergraduate, 2017 - 2018

Elektrik ve Magnetizma Laboratuvarı (Çeşitli Dönemlerde 3 kez), Undergraduate, 2017 - 2018

Kathal Fiziği II (Uygulama) (1 kez), Undergraduate, 2017 - 2018

Kathal Fiziği Laboratuvarı (1 kez), Undergraduate, 2017 - 2018

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

- I. **Mn substitution effect on the local structure of  $\text{La}(\text{Fe}_{1-x}\text{Mn}_x)\text{AsO}$  studied by temperature dependent x-ray absorption measurements**  
Hacisalihoglu M. Y., Simonelli L., Marini C., Provino A., Martinelli A., Manfrinetti P., Putti M., Saini N. L.  
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.33, no.9, 2021 (SCI-Expanded)
- II. **Local structure displacements in  $\text{La}_{1-x}\text{Ce}_x\text{OBSiSe}$  as a function of Ce substitution**  
Pugliese G. M., Stramaglia F., Capone F. G., Hacisalihoglu M. Y., Kiyama R., Sogabe R., Goto Y., Pollastri S., De Souza D. O., Olivi L., et al.  
JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS, vol.147, 2020 (SCI-Expanded)
- III. **The local structure and magnetic correlations in  $\text{La}(\text{Fe}_{1-x}\text{Mn}_x)\text{AsO}$  system**

Hacisalihoglu M. Y., PARIS E., SIMONELLI L., JOSEPH B., Provino A., Lamura G., Martinelli A., Manfrinetti P., Aquilanti G., ÖZTÜRK K., et al.

JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS, vol.134, pp.319-323, 2019 (SCI-Expanded)

- IV. **Temperature dependent local atomic displacements in NaSn<sub>2</sub>As<sub>2</sub> system**  
PUGLIESE G. M., Stramaglia F., GOTO Y., Terashima K., SIMONELLI L., Fujiwara H., PURI A., MARINI C., Hacisalihoglu M. Y., D'ACAPITO F., et al.  
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.31, no.42, 2019 (SCI-Expanded)
- V. **The electronic structure of Ag<sub>1-x</sub>Sn<sub>1+x</sub>Se<sub>2</sub> (x=0.0, 0.1, 0.2, 0.25 and 1.0)**  
Wakita T., PARIS E., Kobayashi K., Terashima K., Hacisalihoglu M. Y., Ueno T., BONDINO F., MAGNANO E., PIS I., OLIVI L., et al.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.19, no.39, pp.26672-26678, 2017 (SCI-Expanded)
- VI. **Role of the local structure in superconductivity of La<sub>0.5</sub>F<sub>0.5</sub>BiS<sub>2-x</sub>Sex system**  
PARIS E., MIZUGUCHI Y., Hacisalihoglu M. Y., HIROI T., JOSEPH B., Aquilanti G., MIURA O., MIZOKAWA T., SAINI N. L.  
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.29, no.14, 2017 (SCI-Expanded)
- VII. **Determination of the local structure of CsBi<sub>4-x</sub>PbxTe<sub>6</sub> (x=0, 0.5) by X-ray absorption spectroscopy**  
Wakita T., PARIS E., MIZOKAWA T., Hacisalihoglu M. Y., Terashima K., OKAZAKI H., PROUX O., KIEFFER I., LAHERA E., DEL NET W., et al.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.18, no.36, pp.25136-25142, 2016 (SCI-Expanded)
- VIII. **A study of temperature dependent local atomic displacements in a Ba(Fe<sub>1-x</sub>Cox)(<sub>2</sub>)As-2 superconductor**  
Hacisalihoglu M. Y., PARIS E., JOSEPH B., SIMONELLI L., Sato T. J., MIZOKAWA T., SAINI N. L.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.18, no.13, pp.9029-9035, 2016 (SCI-Expanded)
- IX. **Structural inhomogeneities in Fe Te<sub>0.6</sub>Se<sub>0.4</sub>: Relation to superconductivity**  
PROKES K., SCHULZE M., HARTWIG S., SCHAEFER N., LANDSGESELL S., BLUM C. G. F., ABOU-RAS D., Hacisalihoglu M. Y., RESSOUCHE E., OULADDIAF D. B., et al.  
JOURNAL OF CRYSTAL GROWTH, vol.432, pp.95-104, 2015 (SCI-Expanded)
- X. **The nanoscale structure and unoccupied valence electronic states in FeSe<sub>1-x</sub>Tex chalcogenides probed by X-ray absorption measurements**  
Hacisalihoglu M. Y., PARIS E., JOSEPH B., Yanmaz E., SAINI N. L.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.17, no.27, pp.18131-18137, 2015 (SCI-Expanded)
- XI. **Effect of Substitution and Heat Treatment Route on Polycrystalline FeSe<sub>0.5</sub>Te<sub>0.5</sub> Superconductors**  
Hacisalihoglu M. Y., Yanmaz E.  
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.26, no.7, pp.2369-2374, 2013 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Determination of the Valence States and the Local Structures of Ag<sub>1-x</sub>Sn<sub>1+x</sub>Se<sub>2</sub> (x = 0.0, 0.1, 0.2, 0.25 and 1.0)**  
Wakita T., Paris E., Kobayashi K., Terashima K., HACISALİHOĞLU M. Y., Ueno T., Bondino F., Magnano E., Pis I., Olivi L., et al.  
International Conference on Strongly Correlated Electron Systems 2019 (SCES2019), Okayama, Japan, 23 - 28 September 2019, pp.1
- II. **x-dependence of local structure of Ag<sub>1-x</sub>Sn<sub>1+x</sub>Se<sub>2</sub> (x = 0.0, 0.1, 0.2, 0.25 and 1.0)**  
Wakita T., Paris E., Kobayashi K., Terashima K., HACISALİHOĞLU M. Y., Ueno T., Bondino F., Magnano E., Pis I., Olivi L., et al.  
The Physical Society of Japan 2019 Autumn meeting, Gifu, Japan, 10 - 13 September 2019, pp.1
- III. **Local structure of La<sub>1-x</sub>CexOBiS<sub>2</sub> as a function of Ce substitution**  
Pugliese G. M., Stramaglia F., HACISALİHOĞLU M. Y., Mizuguchi Y., Terashima K., Yokoya T., Mizokawa T., Saini N. L.  
International meeting on Study of Matter at Extreme Conditions, Miami, United States Of America, 30 March - 06 April 2019, pp.78

- IV. **EXAFS analysis of  $\text{Ag}_{1-x}\text{Sn}_x\text{Se}_2$  ( $x = 0.0, 0.1, 0.2, 0.25$  and  $1.0$ )**  
Wakita T., Paris E., Kobayashi K., Terashima K., HACISALİHOĞLU M. Y., Ueno T., Bondino F., Magnano E., Pis I., Olivi L., et al.  
The Physical Society of Japan 2019 Annual (74th) meeting, Fukuoka, Japan, 14 - 17 March 2019, pp.1
- V. **Combined Study of XAS and XPS for  $\text{Ag}_{1-x}\text{Sn}_x\text{Se}_2$  ( $x = 0.0, 0.1, 0.2, 0.25$  and  $1.0$ )**  
Wakita T., Paris E., Kobayashi K., Terashima K., HACISALİHOĞLU M. Y., Ueno T., Bondino F., Magnano E., Pis I., Olivi L., et al.  
International Workshop on Trends in Advanced Spectroscopy in Materials Science (TASPEC), Hiroshima, Japan, 4 - 06 October 2018, pp.1
- VI. **Determination of the Atomic Disorder and Magnetic Correlations in  $\text{La}(\text{Fe}_{1-x}\text{Mn}_x)\text{AsO}$  System**  
HACISALİHOĞLU M. Y., JOSEPH B., PARIS E., Provino A., Lamura G., Cimberle R., Martinelli A., Manfrinetti P., Aquilanti G., OZTURK K., et al.  
European Materials Research Society (E-MRS) Fall Meeting, Varşova, Poland, 17 - 20 September 2018, pp.183
- VII. **Local structures and chemical states of SnSe single crystals**  
Wakita T., Terashima K., HACISALİHOĞLU M. Y., Joseph B., Yamashita A., Takano Y., Olivi L., Bondino F., Magnano E., Pis I., et al.  
The Physical Society of Japan 2018 Autumn meeting, Kyoto, Japan, 9 - 12 September 2018, pp.1
- VIII.  **$\text{La}(\text{Fe}_{1-x}\text{Mn}_x)\text{AsO}$  Sisteminde Lokal Yapı ve Magnetik Korelasyonlar**  
HACISALİHOĞLU M. Y., PARIS E., JOSEPH B., Provino A., Lamura G., Cimberle R., Martinelli A., Manfrinetti P., Aquilanti G., OZTURK K., et al.  
VII. Yoğun Madde Fiziği İzmir Toplantısı, İzmir, Turkey, 13 April 2018, pp.19
- IX. **The electronic structure of  $\text{Ag}_{1-x}\text{Sn}_x\text{Se}_2$  ( $x = 0.0, 0.1, 0.2, 0.25$  and  $1.0$ )**  
Wakita T., Paris E., Kobayashi K., Terashima K., HACISALİHOĞLU M. Y., Ueno T., Bondino F., Magnano E., Pis I., Olivi L., et al.  
The Physical Society of Japan 2018 Annual (73rd) meeting, Tokyo, Japan, 22 - 25 March 2018, pp.1
- X. **Combined study of XAFS and PES for novel superconductors: Local structure and electronic states of  $\text{CsBi}_{4-x}\text{Pb}_x\text{Te}_6$  and  $\text{CeO}_{1-x}\text{F}_x\text{BiS}_2$**   
Wakita T., Paris E., Mizokawa T., HACISALİHOĞLU M. Y., Terashima K., Okazaki H., Proux O., Kieffer I., Lahera E., Net W. D., et al.  
Physics and Chemistry of Superconductors and Thermoelectric Materials (PCST), Roma, Italy, 13 - 15 September 2017, pp.1
- XI. **EXAFS and Photoemission spectroscopy of  $\text{CsBi}_{4-x}\text{Pb}_x\text{Te}_6$**   
Wakita T., Paris E., Mizokawa T., HACISALİHOĞLU M. Y., Terashima K., Okazaki H., Proux O., Kieffer I., Lahera E., Net W. D., et al.  
European Materials Research Society 2016 Fall meeting, Varşova, Poland, 19 - 22 September 2016, pp.1
- XII. **Spectroscopic Studies for novel layered superconductor  $\text{CsBi}_{4-x}\text{Pb}_x\text{Te}_6$**   
Wakita T., Paris E., Mizokawa T., HACISALİHOĞLU M. Y., Terashima K., Okazaki H., Proux O., Kieffer I., Lahera E., Net W. D., et al.  
The Physical Society of Japan 2016 Autumn meeting, Kanazawa, Japan, 13 - 16 September 2016, pp.1
- XIII. **Temperature dependent local atomic displacements and disorder in  $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$  superconductor**  
HACISALİHOĞLU M. Y., PARIS E., JOSEPH B., SATO T., MIZOKAWA T., SAINI N. L.  
Nanoscale Excitations in Emergent Materials (NEEM 2015) 2nd Bilateral Indo-Italian Workshop, Roma, Italy, 12 - 16 October 2015, pp.43-44
- XIV. **Nanoscale structure and unoccupied valence electronic states in  $\text{FeSe}_{1-x}\text{Te}_x$  system probed by x-ray absorption measurements**  
HACISALİHOĞLU M. Y., PARIS E., JOSEPH B., YANMAZ E., SAINI N. L.  
101st National Congress of Italian Physical Society, Roma, Italy, 21 - 25 September 2015, pp.35
- XV. **Structural Phase Analysis of  $\text{FeSe}_{0.5}\text{Te}_{0.5}$  Superconductors**  
HACISALİHOĞLU M. Y., YANMAZ E.  
7th Asian Conference on Applied Superconductivity and Cryogenics, Nevşehir, Turkey, 23 - 25 October 2013,

pp.180

- XVI. **Structural and Magnetic Properties of Single Crystal Te Doped FeSe Superconductors**  
HACISALİHOĞLU M. Y., YANMAZ E.  
International Conference on Superconductivity and Magnetism, İstanbul, Turkey, 29 April - 04 May 2012, pp.653
- XVII. **Structural and Magnetic Properties of Single Crystal Te-Doped FeSe Superconductors**  
HACISALİHOĞLU M. Y.  
5. Ulusal Süperiletkenlik Sempozyumu, İzmir, Turkey, 3 - 06 July 2011, pp.11
- XVIII. **Systematic investigations of the ternary system Fe-Se-Te**  
SCHULZE M., HACISALİHOĞLU M. Y., BLUM C. G. F., Hess C., KOMAR M., Wolter A., WURMEHL S., BUECHNER B.  
German Physical Society Dresden 2011 Negotiations, Dresden, Germany, 13 - 18 March 2011, pp.28
- XIX. **Structural and magnetic properties of Te-doped FeSe superconductors**  
YANMAZ E., HACISALİHOĞLU M. Y., DANCER C., SPELLER S., GROVENOR C.  
5. International conference on materials science and condensed matter physics and symposium 'Electrical methods of materials treatment', Chisinau, Moldova, 13 - 17 September 2010, pp.31
- XX. **Structural and magnetic properties of FeSe and FeSe<sub>0.5</sub>Te<sub>0.5</sub> superconductors**  
YANMAZ E., HACISALİHOĞLU M. Y., DANCER C., SPELLER S., GROVENOR C.  
International Conference on Superconductivity and Magnetism with Spring School, Antalya, Turkey, 25 - 30 April 2010, pp.319
- XXI. **Effect of Flux Pinning Properties Of SiC- doped MgB<sub>2</sub> Superconductors**  
DİLEK T., TAYLAN KOPARAN E., BASOĞLU M., HACISALİHOĞLU M. Y., YANMAZ E.  
International Student Workshop on Condensed Matter and Material Physics, Antalya, Turkey, 27 - 31 December 2009, pp.40
- XXII. **Structural and magnetic properties of Te-doped FeSe Superconductors**  
YANMAZ E., HACISALİHOĞLU M. Y.  
International Student Workshop on Condensed Matter and Material Physics, Antalya, Turkey, 27 - 31 December 2009, pp.47
- XXIII. **Superconducting Properties of Pure and SiC doped Bulk MgB<sub>2</sub> Superconductors**  
BAYAZIT T., BAŞOĞLU M., TAYLAN KOPARAN E., HACISALİHOĞLU M. Y., YANMAZ E.  
4. Ulusal Süperiletkenler Sempozyumu, Trabzon, Turkey, 10 August 2009

## Supported Projects

HACISALİHOĞLU M. Y., Other International Funding Programs, Polarized x-ray absorption study on SnSe showing large thermoelectric efficiency, 2017 - 2017

HACISALİHOĞLU M. Y., Other International Funding Programs, Can Bi-6s lone pair cause off-center displacements and local bondlength splitting in BiS<sub>2</sub>-based superconductors?, 2016 - 2016

HACISALİHOĞLU M. Y., Other International Funding Programs, Effect of intercalation of molecular spacer in iron-based FeSe chalcogenide superconductor, 2016 - 2016

HACISALİHOĞLU M. Y., Other International Funding Programs, Possible role of Ir spin orbit coupling and Te-Te polymers in the phase transition of IrTe<sub>2</sub>, 2016 - 2016

HACISALİHOĞLU M. Y., Other International Funding Programs, Effect of pressure on the local structure of Ca<sub>10</sub>M<sub>4</sub>As<sub>8</sub>(Fe<sub>2</sub>As<sub>2</sub>)<sub>5</sub> superconductor with strong interlayer interaction, 2015 - 2016

HACISALİHOĞLU M. Y., Other International Funding Programs, Effect of Se substitution on the local structure of LaO<sub>1-x</sub>FxBiS<sub>2-y</sub>Se<sub>y</sub> superconductor, 2015 - 2015

HACISALİHOĞLU M. Y., Other International Funding Programs, Correlation between Jahn-Teller distortions and functional properties of recently developed Na<sub>2/3</sub>MnyCo<sub>1-y</sub>O<sub>2</sub> battery materials, 2014 - 2014

HACISALİHOĞLU M. Y., Other International Funding Programs, Interplay of local atomic displacements and electronic properties of new superconductor LnO<sub>1-x</sub>FxBiS<sub>2</sub> (La, Ce), 2014 - 2014

## Scientific Refereeing

NEW JOURNAL OF PHYSICS, SCI Journal, September 2022  
SUPERCONDUCTOR SCIENCE AND TECHNOLOGY, SCI Journal, March 2022  
SUPERCONDUCTOR SCIENCE & TECHNOLOGY, SCI Journal, August 2020  
JOURNAL OF APPLIED PHYSICS, SCI Journal, July 2020  
SUPERCONDUCTOR SCIENCE & TECHNOLOGY, SCI Journal, February 2020  
JOURNAL OF PHYSICS-CONDENSED MATTER, SCI Journal, November 2019  
SUPERCONDUCTOR SCIENCE & TECHNOLOGY, SCI Journal, September 2019  
Journal of Physics: Materials , SCI Journal, August 2019  
JOURNAL OF PHYSICS-CONDENSED MATTER, SCI Journal, May 2019  
JOURNAL OF APPLIED PHYSICS, SCI Journal, March 2019  
JOURNAL OF PHYSICS-CONDENSED MATTER, SCI Journal, January 2019

## Metrics

Publication: 35  
Citation (WoS): 89  
Citation (Scopus): 95  
H-Index (WoS): 5  
H-Index (Scopus): 5

## Congress and Symposium Activities

ISCHIA CONFERENCE Superstripes 2016 UGO FANO PRIZE Ugo Fano Gold Medal Ceremony and Ugo Fano Symposium, Attendee, Roma, Italy, 2015

## Scholarships

Spettroscopia dei materiali superconduttori (12 Ay Doktora-sonrası Araştırma Bursu), University, 2022 - Continues  
Erasmus Eğitim Alma Hareketliliği (2 Gün), European Commission, 2019 - 2019  
2224-A Yurt Dışı Bilimsel Etkinliklere Katılımı Destekleme Programı, TÜBİTAK, 2018 - 2018  
Araştırma Bursu (3 Ay), University, 2016 - 2016  
2214 A Yurt Dışı Doktora Sırası Araştırma Burs Programı (12 Ay), TÜBİTAK, 2015 - 2016  
Araştırma Bursu (3 Ay), University, 2015 - 2015  
Erasmus Eğitim Alma Hareketliliği (5 Gün), European Commission, 2014 - 2014  
Kısmi Araştırma Desteği (3 Ay), Official Institutions of Foreign Countries, 2010 - 2010  
Yurtdışı Yüksek Lisans Tez Araştırma Bursu (3 Ay), YOK, 2010 - 2010