

## Prof. MAHMUT VEDAT AKDENİZ

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: A-7414-2016

ScopusID: 6601983886

Yoksis Researcher ID: 4167

### Education Information

Doctorate, Open University, Faculty Of Technology, Materials Science, United Kingdom 1986 - 1989

Postgraduate, Middle East Technical University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği, Turkey 1983 - 1986

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, Turkey 1978 - 1983

### Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Intermetallics, Physical Metallurgy, Metallic Materials, Nanomaterials, Engineering and Technology

### Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2001 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 1996 - 2001

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 1990 - 1996

Lecturer PhD, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 1989 - 1990

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 1984 - 1986

### Academic and Administrative Experience

Uygulama ve Araştırma Merkezi Yönetim Kurulu Üyesi, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2019 - Continues

## Courses

Science and Engineering in Materials - II, Doctorate, 2020 - 2021, 2019 - 2020  
FUNDAMENTALS OF MATERIALS SCIENCE AND ENGINEERING , Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018  
MATERIALS ENGINEERING DESIGN II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018  
MATERIALS SCIENCE II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018  
Characterization of Materials, Postgraduate, 2020 - 2021, 2019 - 2020  
MATERIALS SCIENCE I, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018  
Science and Engineering in Materials - I, Doctorate, 2020 - 2021, 2019 - 2020  
WELDING METALLURGY, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018

## Advising Theses

Akdeniz M. V., Gür C. H., DEVELOPMENT AND INVESTIGATION OF METAL-CERAMIC BRAZING TECHNIQUES FOR ULTRA HIGH VACUUM APPLICATIONS, Postgraduate, A.SERDAR(Student), 2024  
Akdeniz M. V., Mehrabov A., SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF MULTIFUNCTIONAL TI ALLOY: GUM METAL, Postgraduate, O.ELÇİN(Student), 2020  
Akdeniz M. V., Mehrabov A., Alloy design for the development and production of titanium based bulk metallic glasses, Postgraduate, I.BEGÜM(Student), 2019  
Mehrabov A., Akdeniz M. V., SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF BULK AND NANOALLOYS OF Ni-B BINARY SYSTEMS, Postgraduate, H.SEÇKİN(Student), 2019  
Mehrabov A., Akdeniz M. V., SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF Co-Al BASED SUPERALLOYS, Postgraduate, A.FIRAT(Student), 2019  
Akdeniz M. V., Demirköz M. B., RADIATION DAMAGE STUDIES OF BULK METALLIC GLASS MATERIALS UNDER PROTON IRRADIATION AND RADIOPROTECTION STUDIES FOR METU-DBL, Postgraduate, P.USLU(Student), 2019  
Mehrabov A., Akdeniz M. V., Modelling, simulation, synthesis and structural characterization of Ni-Fe based nanoalloys, Postgraduate, E.ARSLAN(Student), 2018  
Akdeniz M. V., Mehrabov A., Bulk amorphous steel as a coating material: Hardfacing application, Postgraduate, H.ÇAKMAK(Student), 2018  
Mehrabov A., Akdeniz M. V., Design and development of Ni-based heusler alloys for magnetic refrigeration, Postgraduate, S.TORAMAN(Student), 2018  
Akdeniz M. V., Mehrabov A., Design and development of high temperature nickel-based superalloys, Postgraduate, R.ERİŞ(Student), 2017  
Kalay Y. E., Akdeniz M. V., Development of rare-earth free permanent magnets, Doctorate, A.MERVE(Student), 2017  
Akdeniz M. V., Mehrabov A., Synthesis and characterization of bulk amorphous/nanocrystalline soft magnetic materials, Postgraduate, M.MERVE(Student), 2016  
Akdeniz M. V., Mehrabov A., Design and development of iron aluminium intermetallic compounds for structural applications at high temperatures, Doctorate, M.YILDIRIM(Student), 2014  
Akdeniz M. V., Mehrabov A., Bulk amorphous/nanocrystalline materials: Structural amorphous steels, Postgraduate, B.YAĞMURLU(Student), 2014  
Akdeniz M. V., Mehrabov A., Synthesis and characterization of copper based bulk amorphous alloys, Postgraduate, E.MERMER(Student), 2013  
Akdeniz M. V., Mehrabov A., Phase Transformations and Magnetic Properties of Heusler-type Multicomponent Alloys, Postgraduate, M.KALKANCI(Student), 2011  
AKDENİZ M. V., MEHRABOV A., Nano-scale phase separation and glass forming ability of iron-boron based metallic glasses, Postgraduate, M.AYKOL(Student), 2008  
AKDENİZ M. V., MEHRABOV A., Theoretical and experimental investigations on atomic and magnetic ordering in full heusler alloys, Postgraduate, C.TOPBAŞI(Student), 2008  
Akdeniz M. V., Mehrabov A., Theoretical and experimental investigation of bulk glass forming ability in bulk amorphous

alloy systems, Postgraduate, C.AYAS(Student), 2005

AKDENİZ M. V., Synthesis and characterization of zirconium based bulk amorphous alloys, Postgraduate, İ.SALTOĞLU(Student), 2004

AKDENİZ M. V., Synthesis and characterization of nickel based bulk amorphous alloys, Postgraduate, H.ARSLAN(Student), 2004

AKDENİZ M. V., Production and development of bulk metallic glasses, Doctorate, K.PEHLİVANOĞLU(Student), 2003

AYDINOL M. K., AKDENİZ M. V., Prediction of glass forming ability in Zr based binary alloys, Postgraduate, B.DİLSİZOĞLU(Student), 2001

AYDINOL M. K., AKDENİZ M. V., Prediction of glass forming ability in TM-based binary alloys, Postgraduate, H.BURCU(Student), 2001

AKDENİZ M. V., Monte carlo study of Fe<sub>3</sub>Al based intermetallics, Postgraduate, M.MURAT(Student), 1996

AKDENİZ M. V., Al coating of steels, Postgraduate, T.YILMAZ(Student), 1994

## Jury Memberships

Associate Professor Exam, Associate Professor Exam, Middle East Technical University, March, 2024

Associate Professor Exam, Associate Professor Exam, Middle East Technical University, March, 2023

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

- I. **Unveiling the effect of Hf-(Mo,W) addition on the coarsening, agglomeration, and dissolution behaviour of  $\gamma'$ -Ni<sub>3</sub>Al precipitates in model Ni-based superalloys**  
ERİŞ R., AKDENİZ M. V., MEHRABOV A.  
Journal of Alloys and Compounds, vol.936, 2023 (SCI-Expanded)
- II. **On the Optimization of the Microstructural and Mechanical Properties of Model Ni-Based Superalloys Through the Alloying Effects of Refractory Mo and W Elements**  
Eriş R., Akdeniz M. V., Mekhrabov A.  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, vol.53, no.5, pp.1859-1872, 2022 (SCI-Expanded)
- III. **Radiation effect studies on partially crystalline bulk amorphous Fe-based metallic glass**  
Kıccı P. U., Akdeniz M. V., Demirköz M. B., Mekhrabov A.  
RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.177, no.3-4, pp.294-306, 2022 (SCI-Expanded)
- IV. **Effect of Y Addition on the Structural Properties and Oxidation Behavior of Fe<sub>60</sub>Al<sub>40</sub>-nYn Alloys (n=1, 3, and 5 at.%)**  
Yıldırım M., Atas M. S., Akdeniz M. V., Mekhrabov A.  
MATERIALS AT HIGH TEMPERATURES, vol.39, no.3, pp.220-230, 2022 (SCI-Expanded)
- V. **The Site Preferences of Transition Elements and Their Synergistic Effects on the Bonding Strengthening and Structural Stability of  $\gamma'$ -Ni<sub>3</sub>Al Precipitates in Ni-Based Superalloys: A First-Principles Investigation**  
Eriş R., Akdeniz M. V., Mekhrabov A.  
Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, vol.52, no.6, pp.2298-2313, 2021 (SCI-Expanded)
- VI. **Microstructure, phase relationships and microhardness of Fe<sub>60</sub>Al<sub>40</sub>-nHfn alloys (n=1, 3, and 5 at.%)**  
Yıldırım M., Cetinbakış N., Culu A., Akdeniz M. V., Mekhrabov A.  
INTERNATIONAL JOURNAL OF MATERIALS RESEARCH, vol.112, no.4, pp.280-287, 2021 (SCI-Expanded)
- VII. **Size dependent stability and surface energy of amorphous FePt nanoalloy**  
Akdeniz M. V., Mekhrabov A.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.788, pp.787-798, 2019 (SCI-Expanded)

- VIII. **Atomic size effect of alloying elements on the formation, evolution and strengthening of gamma'-Ni<sub>3</sub>Al precipitates in Ni-based superalloys**  
Eriş R., Akdeniz M. V., Mekhrabov A.  
INTERMETALLICS, vol.109, pp.37-47, 2019 (SCI-Expanded)
- IX. **Effect of Mo addition on microstructure, ordering, and room-temperature mechanical properties of Fe-50Al**  
Yildirim M., Akdeniz M. V., Mekhrabov A.  
TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA, vol.28, pp.1970-1979, 2018 (SCI-Expanded)
- X. **High-temperature site preference and atomic short-range ordering characteristics of ternary alloying elements in gamma '-Ni<sub>3</sub>Al intermetallics**  
Eris R., Mekhrabov A., Akdeniz M. V.  
PHILOSOPHICAL MAGAZINE, vol.97, pp.2615-2631, 2017 (SCI-Expanded)
- XI. **Synthesis of AlNiCo core/shell nanopowders**  
Genc A. M., Akdeniz M. V., Öztürk T., Kalay Y. E.  
JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, vol.417, pp.112-116, 2016 (SCI-Expanded)
- XII. **Microstructural evolution and room-temperature mechanical properties of as-cast and heat-treated Fe<sub>50</sub>Al<sub>50-n</sub>Nb<sub>n</sub> alloys (n=1, 3, 5, 7, and 9 at%)**  
Yıldırım M., Akdeniz M. V., Mekhrabov A.  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.664, pp.17-25, 2016 (SCI-Expanded)
- XIII. **Microstructural Investigation and Phase Relationships of Fe-Al-Hf Alloys**  
Yıldırım M., Akdeniz M. V., Mekhrabov A.  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, pp.3412-3421, 2014 (SCI-Expanded)
- XIV. **Effects of Nanoparticle Geometry and Temperature on the Structural Evolution in FeCo Nanoalloys**  
Yalçın M., Mekhrabov A., Akdeniz M. V.  
ACTA PHYSICA POLONICA A, vol.125, pp.600-602, 2014 (SCI-Expanded)
- XV. **Synthesis and Characterization of Fe<sub>80</sub>B<sub>20</sub> Nanoalloys Produced by Surfactant Assisted Ball Milling**  
Fadaie A., Akdeniz M. V., Mekhrabov A.  
ACTA PHYSICA POLONICA A, vol.125, pp.597-599, 2014 (SCI-Expanded)
- XVI. **Magnetic monitoring approach to nanocrystallization kinetics in Fe-based bulk amorphous alloy**  
Duman N., Akdeniz M. V., Mekhrabov A.  
INTERMETALLICS, vol.43, pp.152-161, 2013 (SCI-Expanded)
- XVII. **Glass Forming Ability and Magnetic Properties of Fe<sub>36</sub>Ni<sub>36</sub>B<sub>19.2</sub>Si<sub>4.8</sub>Nb<sub>4-x</sub>M<sub>x</sub> (M = Cu, Zr, Ti, Y, Pt) Bulk Glassy Alloys Fabricated by Suction Casting**  
Kirimli H. E., Sarlar K., Konuk A. O., DUMAN N., AKDENİZ M. V., Kucuk I.  
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.26, no.5, pp.1683-1685, 2013 (SCI-Expanded)
- XVIII. **Effect of Ternary Alloying Elements Addition on the Order-Disorder Transformation Temperatures of B<sub>2</sub>-Type Ordered Fe-Al-X Intermetallics**  
Yıldırım M., Akdeniz M. V., Mekhrabov A.  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, pp.1809-1816, 2012 (SCI-Expanded)
- XIX. **Microalloying effects on the microstructure and kinetics of nanoscale precipitation in Ni-Al-Fe alloy**  
Duman N., Mekhrabov A., Akdeniz M. V.  
INTERMETALLICS, vol.23, pp.217-227, 2012 (SCI-Expanded)
- XX. **Effect of Thickness on Magnetic Properties of Fe<sub>36</sub>Co<sub>36</sub>B<sub>19.2</sub>Si<sub>4.8</sub>Mo<sub>2</sub>W<sub>2</sub> Thin Film Prepared by Thermionic Vacuum Arc**  
Perincek F., Erturk K., AYKOL M., Kucuk I., AKDENİZ M. V.  
ACTA PHYSICA POLONICA A, vol.121, no.1, pp.147-148, 2012 (SCI-Expanded)
- XXI. **Solidification behavior, glass forming ability and thermal characteristics of soft magnetic Fe-Co-B-Si-Nb-Cu bulk amorphous alloys**

- AYKOL M., AKDENİZ M. V., MEKHRABOV A.  
INTERMETALLICS, vol.19, no.9, pp.1330-1337, 2011 (SCI-Expanded)
- XXII. **Kinetics of nanoscale precipitation in Ni-Fe-Al alloys: A magnetic monitoring approach**  
DUMAN N., MEKHRABOV A., AKDENİZ M. V.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.509, no.24, pp.6781-6786, 2011 (SCI-Expanded)
- XXIII. **Microstructural and magnetic characterization of iron precipitation in Ni-Fe-Al alloys**  
DUMAN N., MEKHRABOV A., AKDENİZ M. V.  
MATERIALS CHARACTERIZATION, vol.62, no.6, pp.606-614, 2011 (SCI-Expanded)
- XXIV. **Effect of (Mo, W) substitution for Nb on glass forming ability and magnetic properties of Fe-Co-based bulk amorphous alloys fabricated by centrifugal casting**  
KUCUK I., AYKOL M., UZUN O., YILDIRIM M., KABAER M., DUMAN N., YILMAZ F., ERTURK K., AKDENİZ M. V., MEKHRABOV A.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.509, pp.2334-2337, 2011 (SCI-Expanded)
- XXV. **A generalized polytetrahedral cluster approach to partial coordination numbers in binary metallic glasses**  
AYKOL M., MEKHRABOV A., AKDENİZ M. V.  
PHILOSOPHICAL MAGAZINE, vol.91, no.22, pp.2985-3005, 2011 (SCI-Expanded)
- XXVI. **Effect of vanadium on atomic ordering characteristics and anti-phase boundary energies of B2-FeCo alloys**  
AYKOL M., MEKHRABOV A., AKDENİZ M. V.  
INTERMETALLICS, vol.18, no.5, pp.893-899, 2010 (SCI-Expanded)
- XXVII. **Site Selection and Pseudo-Clustering Behaviors of Alloying Elements in Aluminum-Lean gamma-TiAl Intermetallics**  
AYKOL M., MEKHRABOV A., AKDENİZ M. V.  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, no.2, pp.267-274, 2010 (SCI-Expanded)
- XXVIII. **Theoretical prediction of bulk glass forming ability (BGFA) of Ti-Cu based multicomponent alloys**  
SUER S., MEKHRABOV A., AKDENİZ M. V.  
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.355, no.6, pp.373-378, 2009 (SCI-Expanded)
- XXIX. **Nano-scale phase separation in amorphous Fe-B alloys: Atomic and cluster ordering**  
AYKOL M., MEKHRABOV A., AKDENİZ M. V.  
ACTA MATERIALIA, vol.57, no.1, pp.171-181, 2009 (SCI-Expanded)
- XXX. **Solidification microstructures and carbides morphology in rapidly solidified Fe-Al-Cr-C alloys**  
AKDENİZ M. V., MEKHRABOV A.  
METALS AND MATERIALS INTERNATIONAL, vol.14, no.4, pp.397-402, 2008 (SCI-Expanded)
- XXXI. **Impurity-driven nanocrystallization of Zr-based bulk amorphous alloys**  
AKDENİZ M. V., MEKHRABOV A.  
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, vol.8, no.2, pp.894-900, 2008 (SCI-Expanded)
- XXXII. **Modelling and Monte Carlo simulation of the atomic ordering processes in Ni3Al intermetallics**  
MEKHRABOV A., AKDENİZ M. V.  
MODELLING AND SIMULATION IN MATERIALS SCIENCE AND ENGINEERING, vol.15, no.2, pp.1-12, 2007 (SCI-Expanded)
- XXXIII. **Solidification behaviour of bulk glass-forming alloy systems**  
AKDENİZ M. V., MEKHRABOV A., PEHLIVANOĞLU M.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.386, pp.185-191, 2005 (SCI-Expanded)
- XXXIV. **Modeling of the atomic ordering processes in Fe3Al intermetallics by the Monte Carlo simulation method combined with electronic theory of alloys**  
MEKHRABOV A., AKDENİZ M. V.  
METALLURGICAL AND MATERIALS TRANSACTIONS A: PHYSICAL METALLURGY AND MATERIALS SCIENCE, vol.34, no.13, pp.721-734, 2003 (SCI-Expanded)
- XXXV. **Modeling the kinetics of atomic ordering in high temperature intermetallics**  
MEKHRABOV A., AKDENİZ M. V.

- CHEMICAL ENGINEERING COMMUNICATIONS, vol.190, pp.898-910, 2003 (SCI-Expanded)
- XXXVI. **Structural characterization of iron-based bulk metallic glass alloys produced by centrifugal casting**  
PEHLIVANOGLU M., Akdeniz M. V., BOR A. S.  
CHEMICAL ENGINEERING COMMUNICATIONS, vol.190, pp.925-935, 2003 (SCI-Expanded)
- XXXVII. **Modeling of the atomic ordering processes in Fe<sub>3</sub>Al intermetallics by the Monte Carlo simulation method combined with electronic theory of alloys**  
MEKHRABOV A., Akdeniz M. V.  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, no.3, pp.721-734, 2003 (SCI-Expanded)
- XXXVIII. **Effect of ternary alloying elements addition on atomic ordering characteristics of Fe-Al intermetallics**  
MEKHRABOV A., Akdeniz M. V.  
ACTA MATERIALIA, vol.47, no.7, pp.2067-2075, 1999 (SCI-Expanded)
- XXXIX. **The effect of substitutional impurities on the evolution of Fe-Al diffusion layer**  
Akdeniz M. V., MEKHRABOV A.  
ACTA MATERIALIA, vol.46, no.4, pp.1185-1192, 1998 (SCI-Expanded)
- XL. **Atomic ordering characteristics of Ni<sub>3</sub>Al intermetallics with substitutional ternary additions**  
MEKHRABOV A., Akdeniz M. V., ARER M. M.  
ACTA MATERIALIA, vol.45, no.3, pp.1077-1083, 1997 (SCI-Expanded)
- XLI. **Microstructures and phase selection in rapidly solidified Zn-Mg alloys**  
Akdeniz M. V., WOOD J.  
JOURNAL OF MATERIALS SCIENCE, vol.31, no.2, pp.545-550, 1996 (SCI-Expanded)
- XLII. **EFFECT OF MELT SUPERHEAT ON THE GEOMETRY OF MELT-SPUN PURE ZINC RIBBON**  
AKDENİZ M. V., WOOD J.  
SCRIPTA METALLURGICA ET MATERIALIA, vol.32, no.9, pp.1471-1475, 1995 (SCI-Expanded)
- XLIII. **THE ROLE OF SI ADDITION ON THE INTERFACIAL INTERACTION IN FE-AL DIFFUSION LAYER**  
Akdeniz M., Mekhrabov A., Yilmaz T.  
SCRIPTA METALLURGICA ET MATERIALIA, vol.31, pp.1723-1728, 1994 (SCI-Expanded)
- XLIV. **STRUCTURES IN RAPIDLY SOLIDIFIED ZINC**  
AKDENİZ M. V., REID C., WOOD J.  
MATERIALS SCIENCE AND ENGINEERING, vol.98, pp.321-323, 1988 (SCI-Expanded)

## Articles Published in Other Journals

- I. **DESIGN AND DEVELOPMENT OF HEUSLER ALLOYS FOR MAGNETIC REFRIGERATION APPLICATIONS**  
Mekhrabov A., Akdeniz M. V.  
Modern Trends in Physics-Series, vol.1, no.1, pp.9-15, 2019 (Conference Book)
- II. **EFFECT OF Ti ADDITION ON CYCLIC OXIDATION BEHAVIOR OF FeAl INTERMETALLICS**  
Yıldırım M., Akdeniz M. V., Mekhrabov A.  
Journal of Corrosion, vol.23, pp.4-11, 2017 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Microstructural Examination of Mn Alloyed Fe-Al Based Intermetallics**  
AKDENİZ M. V., MEKHRABOV A. O., AĞDAŞ F.  
in: Intermetallics and superalloys. EUROMAT 99. Vol. 10, Morris D.G., Naka S and Caron P, Editor, Wiley-Vch, Weinheim, pp.228-233, 2000
- II. **Microstructural Examination of Mn Alloyed Fe-Al Based Intermetallics**  
Akdeniz M. V., Mekhrabov A., AĞDAŞ F.

in: Intermetallics and Superalloys, Morris D. G., Naka S and Caron P, Editor, John Wiley & Sons, West Sussex, UK , New-York, pp.228-233, 2000

III. **The Effect of Alloying Additions on the Interfacial Interactions at the Fe-Al Interface During Coating**  
Mekhrabov A., Akdeniz M. V., Aktürk İ.

in: Stability of Materials, NATO Advanced Study Institutes (ASI), A. Gonis, P. E. A. Turchi, J. Kudrnousky, Editor, Plenum Press, New-York, pp.681-686, 1996

IV. **THE EFFECTS OF IMPURITY ELEMENTS ON THE PREFERRED ORIENTATION DURING MELT-SPINNING OF DILUTE ZN ALLOYS**

AKDENİZ M. V., WOOD J. V.

in: Textures of Materials - ICOTOM 10, Bunge H.J., Editor, TRANSTEC PUBLICATIONS LTD, Zürich, pp.1351-1356, 1994

## Refereed Congress / Symposium Publications in Proceedings

I. **Modeling and Simulation of Structure-Property Relations in Fe-based Nanoalloys via Computational Materials Science**

Mekhrabov A., Irmak E. A., Akdeniz M. V.

7-th International Conference MTP-2021: Modern Trends in Physics, Baku, Azerbaijan, 15 - 17 December 2021, vol.1, pp.7-14

II. **The Site and Phase Preferences of Mo Element in a Model Ni-Al-Mo Superalloy**

Eriş R., Akdeniz M. V., Mekhrabov A.

20th International Metallurgy & Materials Congress, 10 - 12 June 2021, pp.483

III. **Microstructural Evolution of  $\gamma'$ -Ni<sub>3</sub>Al Precipitates Affecting Mechanical Properties of Nickel-based Superalloys**

Eriş R., Akdeniz M. V., Mekhrabov A.

TMS 2020 Annual Meeting & Exhibition, California, United States Of America, 23 - 27 February 2020, pp.324

IV. **Radiation Damage Studies for Fe-Based Alloys Under 30 MeV Proton Irradiation**

Uslu P., Akdeniz M. V., Mekhrabov A., Demirköz M. B.

Materials In Nuclear Energy Systems (MiNES 2019), Maryland, United States Of America, 6 - 10 October 2019

V. **Design and Development of Heusler Alloys for Magnetic Refrigeration Applications**

Mekhrabov A., Akdeniz M. V.

Modern Trends in Physics, Baku, Azerbaijan, 1 - 03 May 2019, pp.49-50

VI. **Design and Development of Heusler Alloys for Magnetic Refrigeration Applications**

Mekhrabov A., Akdeniz M. V.

Modern Trends in Physics-MTP-2019, Baku, Azerbaijan, 1 - 03 May 2019, pp.9-15

VII. **DESIGN AND DEVELOPMENT OF HEUSLER ALLOYS FOR MAGNETIC REFRIGERATION APPLICATIONS**

Mekhrabov A., AKDENİZ M. V.

International Conference on Modern Trends in Physics, Baku, Azerbaijan, 1 - 03 May 2019, pp.9-15

VIII. **Manyetik Soğutucular İçin Ni-Tabanlı Heusler Alaşımlarının Tasarlanması ve Geliştirilmesi**

Toraman S., Mekhrabov A., Akdeniz M. V.

24. Yoğun Madde Fiziği – Ankara Toplantısı, Ankara, Turkey, 21 December 2018, pp.55

IX. **Alloy Design for the Development and Production of Titanium Based Bulk Metallic Glasses**

Demir I. B., Mekhrabov A. O., Akdeniz M. V.

IMMC2018-19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018, pp.307-310

X. **Synthesis and Structural Characterization of Co-Al Binary Alloys**

DİNLER A. F., MEKHRABOV A. O., AKDENİZ M. V.

IMMC2018-19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018, pp.140-143

XI. **Synthesis and Structural Characterization of Multifunctional Ti Alloy: Gum Metal**

Elçin O., Mekhrabov A. O., Akdeniz M. V.

IMMC2018-19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018, pp.322-325

- XII. **Synthesis and Structural Characterization of Bulk and Nanoalloys of Ni-B Binary Systems**  
Tekekaya H. S., Mekhrabov A. O., Akdeniz M. V.  
IMMC2018-19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018, pp.594-597
- XIII. **Synthesis and Structural Characterization of Co-Al Binary Alloys**  
Mekhrabov A., Akdeniz M. V., Dinler A. F.  
19th International Metallurgy and Materials Congress (IMMC 2018), İstanbul, Turkey, 25 - 27 October 2018, pp.140-143
- XIV. **Alloy Design for the Development and Production of Titanium Based Bulk Metallic Glasses**  
Mekhrabov A., Akdeniz M. V., Demir I. B.  
19th International Metallurgy and Materials Congress (IMMC 2018), İstanbul, Turkey, 25 - 27 October 2018, pp.307-310
- XV. **Synthesis and Structural Characterization of Bulk and Nanoalloys of Ni-B Binary Systems**  
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## **Metrics**

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## **Non Academic Experience**

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