

Prof. Ali Erçin ERSUNDU

Personal Information

Office Phone: [+90 212 383 4669](tel:+902123834669)

Email: ersundu@yildiz.edu.tr

Web: <https://www.glass.yildiz.edu.tr>

Address: Yıldız Teknik Üniversitesi, Davutpaşa Kampüsü Kimya-Metalurji Fakültesi, Metalurji ve Malzeme Mühendisliği Bölümü
KMA317, 34220 Esenler / İstanbul

International Researcher IDs

ScholarID: GnFzDo0AAAAJ

ORCID: 0000-0002-8616-9039

Publons / Web Of Science ResearcherID: AAH-2730-2019

ScopusID: 23975619300

Yoksis Researcher ID: 23008

Biography

Prof. Dr. Ali Erçin Ersundu received his undergraduate degree from Istanbul Technical University, Department of Metallurgical and Materials Engineering in 2005. He later completed his master's and doctoral studies in Istanbul Technical University, Graduate School, Materials Science and Engineering program in 2007 and 2013, respectively. During his doctoral studies, he worked as a visiting researcher at the University of Illinois at Urbana-Champaign, Department of Materials Science and Engineering. In 2014, he started to work as a faculty member in the Department of Metallurgical and Materials Engineering at Yıldız Technical University. He was awarded the title of associate professor and full professor in 2018 and 2023, respectively. He continues to carry out his research at the Glass Research Laboratory of which he is the co-founder.

Prof. Dr. Ali Erçin Ersundu has carried out a wide range of pioneering studies on the development and integration of glass and glass-ceramic-based materials especially for energy and communication systems. Recently, he focused on glass and glass nanocomposites with color conversion properties and by synthesizing different lanthanide ions and quantum dots directly in glass matrices he was able to completely cut off their contact with the external environment, thus preventing their stability and degradation problems, preserving their luminous properties for a long time and expanding their application areas. With his pioneering work in this field, he paved the way for the integration of glass and glass nanocomposites with color conversion properties into new generation opto-electronic and photonic applications such as, solid-state lighting (LED), Agri-PV, three-dimensional volumetric display, optical temperature sensor and anti-counterfeiting.

In addition to his research-development and education-training activities, Prof. Dr. Ali Erçin Ersundu has also been working as the Director of Yıldız Technical University Science and Technology Application and Research Center (Central Research Laboratory) since September 2021.

In 2021 he was deemed worthy of the Turkish Academy of Sciences (TÜBA) - Outstanding Young Scientist (GEBİP)

award and became a member of the TÜBA Young Academy. In 2022, he was awarded the METU Prof. Dr. Mustafa N. Parlar Education and Research Foundation Research Incentive Award. Prof. Dr. Ali Erçin Ersundu is married with one little boy.

Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Malzeme Bilimi Ve Mühendisliği, Turkey 2007 - 2013

Doctorate, University Of Illinois At Urbana - Champaign (Prof. Waltraud M. Kriven Grubunda Ziyaretçi Araştırmacı), Malzeme Bilimi Ve Mühendisliği, Turkey 2010 - 2012

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Malzeme Bilimi Ve Mühendisliği, Turkey 2005 - 2007

Undergraduate, Istanbul Technical University, Kimya Metalurji Fakültesi , Metalurji Ve Malzeme Mühendisliği, Turkey 2000 - 2005

Dissertations

Doctorate, TELLÜR OKSİT ESASLI ÜÇLÜ SİSTEMLERİN ISIL, KİNETİK VE YAPISAL AÇIDAN İNCELENEREK CAMLAŞMA ÖZELLİKLERİNİN VE FAZ DENGELERİNİN TESPİTİ, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Malzeme Bilimi Ve Mühendisliği / İleri Teknolojiler, 2013

Postgraduate, YERLİ DEMİR CEVHERLERİNİN SÜNGER DEMİR ÜRETİMİNE UYGUNLUĞUNUN ARAŞTIRILMASI, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Malzeme Bilimi Ve Mühendisliği / İleri Teknolojiler, 2007

Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Semiconductor and Superconductor Materials, Optical Properties, Glass Technology and Glass Ceramics, Material Characterization, Nanomaterials, Thermal Properties, Structure-Property Relationship, Optical Properties, Spectroscopy of Matter, Engineering and Technology

Academic Titles / Tasks

Professor, Yıldız Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Metallurgical And Materials Engineering, 2023 - Continues

Associate Professor, Yıldız Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Metallurgical And Materials Engineering, 2018 - 2023

Assistant Professor, Yıldız Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Metallurgical And Materials Engineering, 2018 - 2018

Assistant Professor, Yıldız Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Metallurgical And Materials Engineering, 2014 - 2018

Academic and Administrative Experience

Manager of Research and Application Center, Yıldız Technical University, Bilim ve Teknoloji Uygulama ve Araştırma Merkezi, 2021 - Continues

Yıldız Teknik Üniversitesi, Kimya Metalurji Fakültesi, Metalurji Ve Malzeme Müh. Bölümü, 2015 - 2017

Nişantaşı Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği, 2013 - 2014

Courses

Glass Technology, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017
Solution Thermodynamics, Undergraduate, 2018 - 2019
Phase Diagrams, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015
Malzeme Yapısı ve Kristalografisi, Postgraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017
Materials Thermodynamics 2, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015
Materials Thermodynamics, Undergraduate, 2018 - 2019
Technical English II, Undergraduate, 2017 - 2018, 2016 - 2017
Technical English I, Undergraduate, 2016 - 2017, 2015 - 2016
Materials Thermodynamics 1, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Advising Theses

Ersundu A. E., Development of phosphor containing fluorescent dye added glasses, Doctorate, H.Gülşah(Student), Continues
Ersundu A. E., Development of Thin Glass Compositions, Doctorate, Y.Ateş(Student), Continues
Ersundu A. E., Investigation of lanthanide and perovskite quantum dot co-doped glass nanocomposites using density functional theory, Doctorate, G.Hızlı(Student), Continues
Ersundu A. E., Development of Glass Nanocomposite-Based Luminescent Solar Concentrators for Smart Building-Integrated Photovoltaic Systems, Postgraduate, E.İLTER(Student), Continues
Ersundu A. E., Samarium and Thulium Doped Luminescent Glass-Based LEDs in Indoor Agriculture Applications and Their Effects on Plant Growth, Postgraduate, U.Ekim(Student), 2023
Ersundu A. E., Development of CsPbBr₃ Perovskite Quantum Dot and Lanthanide-doped Glass Nanocomposites for Solid State Lighting Applications, Doctorate, E.Erol(Student), 2022
Ersundu A. E., Lanthanide and/or Quantum Dot Doped Luminescent Glasses/Glass Nanocomposites as Wavelength Convertors for Advanced Opto Electronic Applications, Doctorate, O.Kıbrıslı(Student), 2022
Ersundu A. E., Effect of salt baths contaminated with different calcium compounds on chemical tempering efficiency, Postgraduate, A.Çalı(Student), 2021
Ersundu A. E., Development of Sol-Gel Based Anti-Reflective Coatings for Glasses Used in Photovoltaic Systems, Postgraduate, C.Yıldırım(Student), 2021
Ersundu A. E., Investigation the Effect of Weathering on Chemically Strengthened Thin Flat Glasses, Postgraduate, Y.Ateş(Student), 2020
Ersundu A. E., Investigation of electrical and structural properties in transition metal oxide containing tellurite and antimonite glasses, Postgraduate, O.Başak(Student), 2019
Ersundu A. E., Determination of vitrification behaviour and investigation of radiation shielding properties of bismuth oxide-lead chloride-tellurium oxide system through thermal, optical and structural studies, Postgraduate, V.Akıllı(Student), 2019
Ersundu A. E., Development and characterization of niobium-doped vanadium dioxide based thermochromic thin films for energy saving in buildings, Postgraduate, E.Doğan(Student), 2018
Ersundu A. E., Development and characterization of tungsten doped VO₂-based thermochromic thin film coated glasses, Postgraduate, M.Berkay(Student), 2017
Ersundu A. E., Development and characterization of photo-thermo-refractive glasses for three dimensional phase hologram applications, Postgraduate, O.Kıbrıslı(Student), 2017
Ersundu A. E., Aydın S., Investigation of photocatalytic activity of boron and nitrogen doped TiO₂ thin films, Postgraduate, S.Çulhaoğlu(Student), 2015
Ersundu A. E., Aydın S., Preparation and Characterization of Vanadium Oxide - Based Thermochromic Thin Films Produced by Sol-Gel Method, Postgraduate, M.Can(Student), 2014

Jury Memberships

Doctoral Examination, Doctoral Examination, Middle East Technical University, May, 2022
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, May, 2021
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, May, 2021
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, May, 2021
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, May, 2021
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, May, 2021
Doctoral Examination, Doctoral Examination, Yıldız Teknik Üniversitesi, April, 2021
Doctoral Examination, Doctoral Examination, İzmir Yüksek Teknoloji Enstitüsü, April, 2021
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, December, 2020
Doctoral Examination, Doctoral Examination, Yıldız Teknik Üniversitesi, June, 2020
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, May, 2019
Doctoral Examination, Doctoral Examination, Yıldız Teknik Üniversitesi, March, 2019
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, December, 2017
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, November, 2017
Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, March, 2017
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, May, 2015
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, May, 2015

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **An Investigation of the Photonic Application of TeO₂-K₂TeO₃-Nb₂O₅-BaF₂ Glass Co-Doped with Er₂O₃/Ho₂O₃ and Er₂O₃/Yb₂O₃ at 1.54 μ m Based on Its Thermal and Luminescence Properties**
Boussetta A., Al-Syadi A. M., Albargi H. B., Damak K., ERSUNDU A. E., Ersundu M. Ç., Ramadan E., Alshehri A. M., Hussein K. I., Maalej R., et al.
Materials, vol.17, no.17, 2024 (SCI-Expanded)
- II. **Investigation of Thermal and Spectroscopic Properties of Tellurite-Based Glasses Doped with Rare-Earth Oxides for Infrared Solid-State Lasers**
Boussetta A., Al-Syadi A. M., Damak K., ERSUNDU A. E., ÇELİKBİLEK ERSUNDU M., Ramadan E., Alshehri A. M., Hussein K. I., Maalej R., Yousef E. S.
Materials, vol.17, no.15, 2024 (SCI-Expanded)
- III. **Optimizing optical thermometry with tri-doped Ba₂GdV₃O₁₁ phosphors: Ratiometric and fluorescence lifetime analysis**
Kachou I., Saidi K., EKİM U., Dammak M., ÇELİKBİLEK ERSUNDU M., Erçin Ersundu A. E.
Heliyon, vol.10, no.9, 2024 (SCI-Expanded)
- IV. **Advanced temperature sensing with Er³⁺/Yb³⁺ co-doped Ba₂GdV₃O₁₁ phosphors through upconversion luminescence**
Kachou I., Saidi K., EKİM U., Dammak M., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
Dalton Transactions, vol.53, no.5, pp.2357-2372, 2024 (SCI-Expanded)
- V. **Glass-based LED system for indoor horticulture: enhanced plant growth through Sm³⁺ and Tm³⁺ co-doped luminescent glasses**
EKİM U., İltar E., Özcan E., Temürhan Y., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
Physical Chemistry Chemical Physics, vol.25, no.34, pp.23150-23163, 2023 (SCI-Expanded)
- VI. **The coupling of blue emitting carbon dots with Eu³⁺/Tb³⁺ co-doped luminescent glasses for utilization in white light emitting diodes**
Korkmaz U., Özlem B., EROL E., Alas M. Ö., Genç Altürk R., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
Physical Chemistry Chemical Physics, vol.25, no.16, pp.11452-11463, 2023 (SCI-Expanded)
- VII. **Thermal, optical, structural, and electrical properties of ZnO-MoO₃-TeO₂ glasses**
ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E., Bošák O., Kubliha M., Kostka P.
Ceramics International, vol.49, no.8, pp.12950-12958, 2023 (SCI-Expanded)
- VIII. **Bright white light emission from blue emitting carbon dot-coated Dy³⁺-doped luminescent glasses**

oezlem B., Korkmaz U., EROL E., Alai M. o., Meray Z., Altuerk R. G., Ersundu M., Ersundu A. E.

JOURNAL OF ALLOYS AND COMPOUNDS, vol.926, 2022 (SCI-Expanded)

- IX. **Recyclability of CsPbBr₃ quantum dot glass nanocomposites for their long-standing use in white LEDs**
Vahedigharehchopogh N., EROL E., Kibrisli O., Genc A., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
JOURNAL OF MATERIALS CHEMISTRY C, vol.10, no.42, pp.16088-16099, 2022 (SCI-Expanded)
- X. **Ultra-stable Eu³⁺/Dy(3+)co-doped CsPbBr₃ quantum dot glass nanocomposites with tunable luminescence properties for phosphor-free WLED applications**
EROL E., Vahedigharehchopogh N., EKİM U., Uza N., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.909, 2022 (SCI-Expanded)
- XI. **Synthesis and characterization of newly developed phosphate-based glasses through experimental gamma-ray and neutron spectroscopy methods: Transmission and dose rates**
KAVAZ E., Ersundu M., ERSUNDU A. E., Tekin H.
CERAMICS INTERNATIONAL, vol.48, no.10, pp.13842-13849, 2022 (SCI-Expanded)
- XII. **CdSe and CsPbBr₃ quantum dot Co-doped monolithic glasses as tunable wavelength convertors**
Kibrisli O., Erol E., ERSUNDU A. E., Ersundu M.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.55, no.10, 2022 (SCI-Expanded)
- XIII. **Color tunable emission from Eu³⁺ and Tm³⁺ co-doped CsPbBr₃ quantum dot glass nanocomposites**
Erol E., Kibrisli O., Ersundu M., ERSUNDU A. E.
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.24, no.3, pp.1486-1495, 2022 (SCI-Expanded)
- XIV. **Structural properties and dissolution behavior of new generation controlled release phosphate glass fertilizers**
ÇELİKBİLEK ERSUNDU M., Kuzu B., ERSUNDU A. E.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.576, 2022 (SCI-Expanded)
- XV. **Recent progress in lanthanide-doped luminescent glasses for solid-state lighting applications-a review**
EROL E., Vahedigharehchopogh N., Kibrisli O., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.33, no.48, 2021 (SCI-Expanded)
- XVI. **Robust CsPbBr₃ and CdSe/Dy³⁺+CdSe quantum dot doped glass nanocomposite hybrid coupling as color converter for solid-state lighting applications**
Kıbrıslı O., Erol E., Çelikbilek Ersundu M., Ersundu A. E.
CHEMICAL ENGINEERING JOURNAL, vol.420, 2021 (SCI-Expanded)
- XVII. **Novel HMO-Glasses with Sb₂O₃ and TeO₂ for Nuclear Radiation Shielding Purposes: A Comparative Analysis with Traditional and Novel Shields**
Almısned G., Tekin H. O., Issa S. A. M., Ersundu M., Ersundu A. E., Kılıç G., Zakaly H. M. H., Ene A.
MATERIALS, vol.14, no.15, 2021 (SCI-Expanded)
- XVIII. **A thorough investigation of the Bi₂O₃-PbCl₂-TeO₂ system: Glass forming region, thermal, physical, optical, structural, mechanical and radiation shielding properties**
ERSUNDU A. E., Sayyed M., Kibrıslı O., Akıllı V., ÇELİKBİLEK ERSUNDU M.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.857, 2021 (SCI-Expanded)
- XIX. **A straightforward approach for high-end anti-counterfeiting applications based on NIR laser-driven lanthanide doped luminescent glasses**
Vahedigharehchopogh N., Kibrisli O., Erol E., Çelikbilek Ersundu M., Ersundu A. E.
JOURNAL OF MATERIALS CHEMISTRY C, vol.9, no.6, pp.2037-2046, 2021 (SCI-Expanded)
- XX. **Size-controlled emission of long-time durable CsPbBr₃ perovskite quantum dots embedded tellurite glass nanocomposites**
Erol E., Kibrıslı O., Çelikbilek Ersundu M., Ersundu A. E.
CHEMICAL ENGINEERING JOURNAL, vol.401, 2020 (SCI-Expanded)
- XXI. **The synergistic effect of Er³⁺ and Ho³⁺ on temporal color tuning of upconversion emission in a glass host via a facile excitation modulation technique for anti-counterfeiting applications**
Erol E., Kibrıslı O., Vahedigharehchopogh N., Çelikbilek Ersundu M., Ersundu A. E.

- PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.22, no.44, pp.25963-25972, 2020 (SCI-Expanded)
- XXII. **Noninvasive Optical Temperature Sensing Behavior of Ho³⁺ and Ho³⁺/Er³⁺ Doped Tellurite Glasses Through Up and Down-Converted Emissions**
Kıbrıslı O., Erol E., Vahedigharehchopogh N., Yousef E. S., Çelikkilek Ersundu M., Ersundu A. E.
Sensors And Actuators A-Physical, vol.315, pp.112321, 2020 (SCI-Expanded)
- XXIII. **Investigation the effect of weathering on chemically strengthened flat glasses**
Gösterişlioğlu Y., Ersundu A. E., Çelikkilek Ersundu M., Sökmen İ.
Journal of Non-Crystalline Solids, vol.544, 2020 (SCI-Expanded)
- XXIV. **A comparative study on WO₃ + MoO₃ containing TeO₂ and Sb₂O₃-based heavy metal oxide glasses**
ERSUNDU A. E., ÇELİKBİLEK ERSUNDU M., Gedikoğlu N.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.541, 2020 (SCI-Expanded)
- XXV. **Instantaneous Color Tuning of Upconversion Emission in a Novel Lanthanide-Doped Monolithic Glass via Excitation Modulation**
Kıbrıslı O., Vahedigharehchopogh N., Ersundu A. E., Çelikkilek Ersundu M.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.124, pp.10687-10695, 2020 (SCI-Expanded)
- XXVI. **A comparative investigation on thermal, structural and optical properties of W and Nb-doped VO₂-based thermochromic thin**
Ersundu A. E., Çelikkilek Ersundu M., Doğan E., Güven M.
THIN SOLID FILMS, vol.700, 2020 (SCI-Expanded)
- XXVII. **Color tunability and white light generation through up-conversion energy transfer in Yb³⁺ sensitized Ho³⁺/Tm³⁺ doped tellurite glasses**
Vahedigharehchopogh N., Kıbrıslı O., Ersundu A. E., Çelikkilek Ersundu M.
Journal of Non-Crystalline Solids, vol.525, 2019 (SCI-Expanded)
- XXVIII. **Physical, mechanical and gamma-ray shielding properties of highly transparent ZnO-MoO₃-TeO₂ glasses**
Çelikkilek Ersundu M., Ersundu A. E., Gedikoglu N., Şakar E., Buyiikyildiz M., Kurudirek M.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.524, 2019 (SCI-Expanded)
- XXIX. **Dy³⁺ doped tellurite glasses for solid-state lighting: An investigation through physical, thermal, structural and optical spectroscopy studies**
Kıbrıslı O., Ersundu A. E., Çelikkilek Ersundu M.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.513, pp.125-136, 2019 (SCI-Expanded)
- XXX. **Crystallization behavior of WO₃-MoO₃-TeO₂ glasses**
Gedikoğlu N., Ersundu A. E., Aydın S., Çelikkilek Ersundu M.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.501, pp.93-100, 2018 (SCI-Expanded)
- XXXI. **Investigating the influence of transition metal oxides on temperature dependent optical properties of PbCl₂-TeO₂ glasses for their evaluation as transparent large band gap semiconductors**
Gedikoğlu N., Çelikkilek Ersundu M., Kostka P., Bašinová N., Ersundu A. E.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.748, pp.687-693, 2018 (SCI-Expanded)
- XXXII. **The effect of UV exposure and heat treatment on crystallization behavior of photosensitive glasses**
Kıbrıslı O., Ersundu A. E.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.124, 2018 (SCI-Expanded)
- XXXIII. **Investigation on gamma and neutron radiation shielding parameters for BaO/SrO-Bi₂O₃-B₂O₃ glasses**
Sayyed M. I., Lakshminarayana G., Dong M. G., Çelikkilek Ersundu M., Ersundu A. E., Kityk I. V.
RADIATION PHYSICS AND CHEMISTRY, vol.145, pp.26-33, 2018 (SCI-Expanded)
- XXXIV. **The heavy metal oxide glasses within the WO₃-MoO₃-TeO₂ system to investigate the shielding properties of radiation applications**
Ersundu A. E., Buyiikyildiz M., Çelikkilek Ersundu M., Şakar E., Kurudirek M.
PROGRESS IN NUCLEAR ENERGY, vol.104, pp.280-287, 2018 (SCI-Expanded)
- XXXV. **Investigation of radiation shielding properties for MeO-PbCl₂-TeO₂ (MeO = Bi₂O₃, MoO₃, Sb₂O₃, WO₃, ZnO) glasses**

- Sayyed M. I., Çelikbilek Ersundu M., Ersundu A. E., Lakshminarayana G., Kostka P.
RADIATION PHYSICS AND CHEMISTRY, vol.144, pp.419-425, 2018 (SCI-Expanded)
- XXXVI. **Evaluation of physical, structural properties and shielding parameters for K₂O-WO₃-TeO₂ glasses for gamma ray shielding applications**
Çelikbilek Ersundu M., Ersundu A. E., Sayyed M. I., Lakshminarayana G., Aydın S.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.714, pp.278-286, 2017 (SCI-Expanded)
- XXXVII. **Investigation of gamma radiation shielding properties of lithium zinc bismuth borate glasses using XCOM program and MCNP5 code**
Dong M. G., Sayyed M. I., Lakshminarayana G., Çelikbilek Ersundu M., Ersundu A. E., Nayar P., Mahdi M. A.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.468, pp.12-16, 2017 (SCI-Expanded)
- XXXVIII. **Crystallization kinetics of new heavy metal oxide glasses within the Sb₂O₃-Na₂O-WO₃-PbO system**
Çelikbilek Ersundu M., Ersundu A. E., Soltani M. T., Baazouzi M.
CERAMICS INTERNATIONAL, vol.43, pp.491-497, 2017 (SCI-Expanded)
- XXXIX. **Structure and crystallization kinetics of lithium tellurite glasses**
Çelikbilek Ersundu M., Ersundu A. E.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.453, pp.150-157, 2016 (SCI-Expanded)
- XL. **The TeO₂-Na₂O System: Thermal Behavior, Structural Properties, and Phase Equilibria**
Kavaklioglu K. B., Aydın S., Çelikbilek M., Ersundu A. E.
INTERNATIONAL JOURNAL OF APPLIED GLASS SCIENCE, vol.6, pp.406-418, 2015 (SCI-Expanded)
- XLI. **Thermochromic behavior of tellurite glasses**
Celikbilek M., ERSUNDU A. E., Zayim E., Aydın S.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.637, pp.162-170, 2015 (SCI-Expanded)
- XLII. **Characterization of new Sb₂O₃-based multicomponent heavy metal oxide glasses**
Ersundu A. E., Çelikbilek M., Baazouzi M., Soltani M. T., Troles J., Aydın S.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.615, pp.712-718, 2014 (SCI-Expanded)
- XLIII. **Preparation and and characterization of TeO₂-WO₃-Li₂O glasses**
Çelikbilek M., Ersundu A. E., Aydın S.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.378, pp.247-253, 2013 (SCI-Expanded)
- XLIV. **Glass Formation and Characterization Studies in the TeO₂-WO₃-Na₂O System**
Çelikbilek M., Ersundu A. E., Aydın S.
JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.96, pp.1470-1476, 2013 (SCI-Expanded)
- XLV. **Thermal and microstructural characterization and crystallization kinetic studies in the TeO₂-B₂O₃ system**
Yardimci D., Çelikbilek M., Ersundu A. E., Aydın S.
MATERIALS CHEMISTRY AND PHYSICS, vol.137, pp.999-1006, 2013 (SCI-Expanded)
- XLVI. **Phase equilibria and glass formation studies in the (1-x)TeO₂-xCdO (0.05 ≤ x ≤ 0.33 mol) system**
Karaduman G., Ersundu A. E., Celikbilek M., Solak N., Aydın S.
JOURNAL OF THE EUROPEAN CERAMIC SOCIETY, vol.32, no.3, pp.603-610, 2012 (SCI-Expanded)
- XLVII. **Characterization of B₂O₃ and/or WO₃ containing tellurite glasses**
Ersundu A. E., Çelikbilek M., Aydın S.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.358, pp.641-647, 2012 (SCI-Expanded)
- XLVIII. **Glass formation area and characterization studies in the CdO-WO₃-TeO₂ ternary system**
Ersundu A. E., Celikbilek M., Solak N., Aydın S.
JOURNAL OF THE EUROPEAN CERAMIC SOCIETY, vol.31, no.15, pp.2775-2781, 2011 (SCI-Expanded)
- XLIX. **Investigation on thermal and microstructural characterization of the TeO₂-WO₃ system**
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- VI. **Photoluminescence Enhancement of Dy³⁺-Doped Tellurite Glasses Through Nanoparticle Doping for Solid-state Lighting Applications**
Ersundu A. E., Kibrışlı O., Çelikbilek Ersundu M.
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- VII. **Investigation of luminescence and upconversion properties of Ho³⁺, Tm³⁺ and Yb³⁺-doped tellurite glasses for solid-state lighting applications**
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- VIII. **The Effect of Weathering on Chemical Strengthened Thin Glasses**
Gösterişlioğlu Y. A., Güldalı B., Terzi G., Kaçar E. D., Sımurka L., Çelikbilek Ersundu M., Ersundu A. E., Sökmen İ.
25th International Congress on Glass (ICG 2019), Massachusetts, United States Of America, 9 - 14 June 2019, pp.89
- IX. **Effect of CdSe and ZnSe on Spectroscopic Properties of White Light Emitting Dy³⁺-Doped Tellurite Glasses**
Kibrışlı O., Ersundu A. E., Çelikbilek Ersundu M.
25th International Congress on Glass (ICG 2019), Massachusetts, United States Of America, 9 - 14 June 2019, pp.160
- X. **Patterned Glass Strengthening with Chemical Tempering via Bath Technology**
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- XI. **Comparative Study on Structural and Electrical Properties of TeO₂ and Sb₂O₃-Based Glasses**
Başak O., Gedikoğlu N., Kibrışlı O., Çelikbilek Ersundu M., Ersundu A. E.
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- XII. **Investigation of Nanomechanical Properties of Chemically Tempered Glasses**
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- XIII. **Tellurite glasses potential transparent radiation shielding materials**
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- XIV. **Desenli İnce Düzcamın Kimyasal Temperleme Yolu ile Güçlendirilmesi**
Terzi G., Ögüt B., Yıldız T., Gökçen E., Çelikbilek Ersundu M., Ersundu A. E., Sökmen İ.
33. Şişecam Cam Sempozyumu, İstanbul, Turkey, 02 November 2018, pp.103
- XV. **Beyaz Işık Yayan LED'ler İçin Nadir Toprak İyonu Katkılı Yeni Nesil Camların Geliştirilmesi**
Kibrışlı O., Çelikbilek Ersundu M., Ersundu A. E.
33. Şişecam Cam Sempozyumu, İstanbul, Turkey, 02 November 2018, pp.74
- XVI. **Yaşlandırma Sürecinin Kimyasal Temperli İnce Düzcamlara Olan Etkileri**
Gösterişlioğlu A., Güldalı B., Terzi G., Özben N., Sımurka L., Ersundu A. E., Çelikbilek Ersundu M., Sökmen İ.
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- XVII. **Comparative radiation shielding study of WO₃/Bi₂O₃-PbCl₂-TeO₂ glass systems as transparent shielding materials**
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- XIX. **Comparison of TeO₂ and Sb₂O₃ as Heavy Metal Oxide Glass Formers**

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15th International Conference on the Physics of Non-Crystalline Solids & 14th ESG Conference, Brittany, France, 9 - 13 July 2018, pp.434

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- XXI. **The Effect of Glass Thickness on Chemical Tempering Efficiency**
Kayacan B., Kayaalp A. C., Özben N., Sökmen İ., Ersundu A. E., Çelikbilek Ersundu M.
15th International Conference on the Physics of Non-Crystalline Solids & 14th ESG Conference, Brittany, France, 9 - 13 July 2018, pp.498
- XXII. **The Effect of Nb-doping on thermochromic behavior of VO₂-based thin films forenergy-efficient windows**
Doğan E., Çelikbilek Ersundu M., Ersundu A. E.
15th International Conference on the Physics of Non-Crystalline Solids & 14th ESG Conference, Brittany, France, 9 - 13 July 2018, pp.510
- XXIII. **Comparison on Chemical Tempering Behavior of Commercial Aluminosilicate and Soda Lime Silicate Glasses**
Kayaalp A. C., Kayacan B., Özben N., Sökmen İ., Ersundu A. E., Çelikbilek Ersundu M.
15th International Conference on the Physics of Non-Crystalline Solids & 14th ESG Conference, Brittany, France, 9 - 13 July 2018, pp.499
- XXIV. **Temperature Dependent Optical and Electrical Properties of Sb₂O₃ and TeO₂-based Heavy Metal Oxide Glasses**
Kırışlı O., Gedikoğlu N., Çelikbilek Ersundu M., Ersundu A. E.
15th International Conference on the Physics of Non-Crystalline Solids & 14th ESG Conference, Brittany, France, 9 - 13 July 2018, pp.339
- XXV. **Investigation of Crystallization Behavior of Photo-Thermo-Refractive (PTR) Glasses**
Kırışlı O., Çelikbilek Ersundu M., Aydın S., Ersundu A. E.
12th International Symposium on Crystallization in Glasses and Liquids, Segovia, Spain, 10 - 13 September 2017, pp.125
- XXVI. **Investigating the Crystallization Behavior of WO₃-MoO₃-TeO₂ Glasses**
Gedikoğlu N., Ersundu A. E., Aydın S., Çelikbilek Ersundu M.
12th International Symposium on Crystallization in Glasses and Liquids, Segovia, Spain, 10 - 13 September 2017, pp.126
- XXVII. **Synthesis and Growth Kinetic Studies of ZnTe Quantum Dot-doped Glass Nanocomposites**
Tunç İ., Ersundu A. E., Aydın S., Çelikbilek Ersundu M.
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- XXVIII. **Tellurite glasses as alternative gamma shielding materials**
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Turkish Physical Society 33th International Physics Congress, Muğla, Turkey, 06 September 2017, pp.23
- XXIX. **Preparation and Characterization of W-doped Thermochromic VO₂ Thin Films**
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- XXX. **Synthesis of Thermochromic VO₂ Thin Films for Use in Smart Glass Systems**
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International Conference on Advances and Innovations in Engineering (ICAIE2017), Elazığ, Turkey, 10 - 12 May 2017, pp.1
- XXXI. **Holografik Kayıt Malzemeleri**
Kırışlı O., Ersundu A. E., Çelikbilek Ersundu M.

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Çelikkilek Ersundu M., Ersundu A. E., Soltani M. T., Aydın S.
24th International Congress on Glass (ICG 2016), Shanghai, China, 7 - 11 April 2016, pp.215
- XXXIII. **Investigation of Photocatalytic Activity of Boron or/and Nitrogen-doped TiO₂**
Çulhaoğlu S., Ersundu A. E., Çelikkilek Ersundu M., Aydın S.
24th International Congress on Glass (ICG 2016), Shanghai, China, 7 - 11 April 2016, pp.367
- XXXIV. **Bor ve Azot Katkılı TiO₂ İnce Filmlerin Fotokatalitik Aktivitelerinin İncelenmesi**
Çulhaoğlu S., Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
9. Uluslararası Katılımlı Seramik Kongresi, Afyon, Turkey, 26 - 28 November 2015, pp.114
- XXXV. **Sol-Gel Dip Coated VO₂-based Thin Films for Smart Window Applications**
Özdemir M. C., Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
TMS 2015 Annual Meeting & Exhibition, Florida, United States Of America, 15 - 19 March 2015, pp.211
- XXXVI. **New Multicomponent Antimonite Glasses for Non-Linear Optical Applications**
Ersundu A. E., Çelikkilek Ersundu M., Soltani M. T., Aydın S.
TMS 2015 Annual Meeting & Exhibition, Florida, United States Of America, 15 - 19 March 2015, pp.211
- XXXVII. **Preparation and Characterization of Sol-Gel Based VO₂ Thin Film Coated Glasses**
Özdemir M., Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
12th ESG Conference, Parma, Italy, 21 - 24 September 2014, pp.207
- XXXVIII. **Kinetic Investigation of New Heavy Metal oxide Glasses Based on Sb₂O₃**
Ersundu A. E., Baazouzi M., Çelikkilek Ersundu M., Soltani M. T., Aydın S.
12th ESG Conference, Parma, Italy, 21 - 24 September 2014, pp.126
- XXXIX. **Investigation of Thermochromism in Alkali-Tungsten-Tellurite Glasses**
Çelikkilek Ersundu M., Ersundu A. E., Zayim E., Aydın S.
12th ESG Conference, Parma, Italy, 21 - 24 September 2014, pp.142
- XL. **Synthesis and Characterization of Silver Containing Soda-Lime Glasses**
Guldiren D., Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
17th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 September 2014, pp.329-334
- XLI. **Chemically Strengthened Soda-Lime Glasses via Ion Exchange Process**
Erdem I., Guldiren D., Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
17th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 September 2014, pp.335-340
- XLII. **Temperature Dependent Optical and Electrical Investigation of Alkali-Tungsten-Tellurite Glasses**
Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
17th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 September 2014, pp.323-328
- XLIII. **Thermal And Structural Characterization of Quaternary Antimonite Glasses**
Ersundu A. E., Çelikkilek Ersundu M., Soltani M. T., Aydın S.
17th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 September 2014, pp.323-328
- XLIV. **Color Change in Transition Metal Oxide Doped Tellurite Glasses**
Saygılı M., Sipahioğlu C., Yurdakul Z., Yuceturk K., Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
17th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 September 2014, pp.315-322
- XLV. **Low Cost Preparation of VO₂-Based Thermochromic Thin Films**
Ozdemir M., Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
17th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 September 2014, pp.518-522
- XLVI. **Glass Formation Behavior in Different Binary and Ternary Tellurite Glass Systems**
Ersundu A. E., Çelikkilek Ersundu M., Aydın S.
23rd International Congress on Glass (ICG 2013), Praha, Czech Republic, 1 - 05 July 2013, pp.453
- XLVII. **Thermodynamic and Kinetic Investigation of Alkali Containing Tungsten-Tellurite Glasses**
Çelikkilek Ersundu M., Ersundu A. E., Aydın S.
23rd International Congress on Glass (ICG 2013), Praha, Czech Republic, 1 - 05 July 2013, pp.454
- XLVIII. **Thermal and Structural Properties of the TeO₂-WO₃-Li₂O Glasses**
Yardımcı D., Çelikkilek Ersundu M., Ersundu A. E., Aydın S.

Materials Science and Technology Conference and Exhibition (MS&T'12), Pennsylvania, United States Of America, 7 - 11 October 2012, pp.243-248

XLIX. Investigation of Glass Formation and Structural Properties in the TeO₂-WO₃-Na₂O System

Çelikbilek Ersundu M., Ersundu A. E., Aydın S.

Materials Science and Technology Conference and Exhibition (MS&T'12), Pennsylvania, United States Of America, 7 - 11 October 2012, pp.229-236

L. Phase Separation in Two Glass Former Containing WO₃-TeO₂-B₂O₃ System

Ersundu A. E., Çelikbilek Ersundu M., Aydın S.

Materials Science and Technology Conference and Exhibition (MS&T'12), Pennsylvania, United States Of America, 7 - 11 October 2012, pp.257-261

LI. Phase Equilibria and Glass Formation Studies in the TeO₂-Na₂O System

Kavaklıoğlu K., Çelikbilek Ersundu M., Ersundu A. E., Aydın S.

Materials Science and Technology Conference and Exhibition (MS&T'12), Pennsylvania, United States Of America, 7 - 11 October 2012, pp.237-242

LII. Glass Formation and Structural Studies in the TeO₂-WO₃-B₂O₃ System

Ersundu A. E., Çelikbilek Ersundu M., Aydın S.

16th International Metallurgy & Materials Congress, İstanbul, Turkey, 13 - 15 September 2012, pp.253-260

LIII. Investigation of Thermal and Structural Behavior of Alkali Oxide Containing Tungsten-Tellurite Glasses

Çelikbilek Ersundu M., Ersundu A. E., Aydın S.

16th International Metallurgy & Materials Congress, İstanbul, Turkey, 13 - 15 September 2012, pp.339-345

LIV. Thermal Behavior and Non-Isothermal Kinetic Studies of Lithium-Tellurite Glasses

Kavaklıoğlu K., Çelikbilek Ersundu M., Ersundu A. E., Aydın S.

16th International Metallurgy & Materials Congress, İstanbul, Turkey, 13 - 15 September 2012, pp.1

LV. Investigation of Phase Separation Region in the TeO₂-B₂O₃ System

Yardımcı D., Çelikbilek Ersundu M., Ersundu A. E., Aydın S.

16th International Metallurgy & Materials Congress, İstanbul, Turkey, 13 - 15 September 2012, pp.346-351

LVI. Thermal Investigation and Crystallization Behavior of Zinc-Tellurite Glasses

Irmak T., Çelikbilek Ersundu M., Ersundu A. E., Aydın S.

16th International Metallurgy & Materials Congress, İstanbul, Turkey, 13 - 15 September 2012, pp.352-357

LVII. Effect of Na₂O Addition on Tungsten-Tellurite Glasses

Çelikbilek Ersundu M., Ersundu A. E., Aydın S.

Materials Science and Technology Conference and Exhibition (MS&T'11), Ohio, United States Of America, 16 - 20 October 2011, pp.192

LVIII. Thermal Behavior and Kinetics of Glass Transition in B₂O₃ Containing Tungsten-Tellurite Glasses

Çelikbilek Ersundu M., Yardımcı D., Ersundu A. E., Solak N., Aydın S.

Materials Science and Technology Conference and Exhibition (MS&T'11), Ohio, United States Of America, 16 - 20 October 2011, pp.55-61

LIX. Characterization of Glasses in the TeO₂-WO₃-CdO System

Ersundu A. E., Çelikbilek Ersundu M., Solak N., Aydın S.

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LX. Glasses of TeO₂-ZnO System for Fiber-Optic Applications

Celayir U., Ceren M., Gönülhan B., Jadidi P., Kavaklıoğlu K. B., Saraçoğlu K., Çelikbilek Ersundu M., Ersundu A. E., Solak N., Aydın S.

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LXI. Characterization Studies on the B₂O₃ Containing Tungsten-Tellurite Glasses

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17th International Symposium on Boron, Borides and Related Materials, İstanbul, Turkey, 11 September 2011 - 17 September 2017, pp.291

- LXII. Thermal and Microstructural Characterization of TeO₂-B₂O₃ System**
Yardimci D., Çelikbilek Ersundu M., Ersundu A. E., Solak N., Aydın S.
17th International Symposium on Boron, Borides and Related Materials, İstanbul, Turkey, 11 - 17 September 2011, pp.286
- LXIII. Characterization Studies in the WO₃-CdO System**
Çelikbilek Ersundu M., Ersundu A. E., Solak N., Aydın S.
12th International Conference and Exhibition of the European Ceramic Society, Stockholm, Sweden, 19 - 23 June 2011, pp.1
- LXIV. Phase Transformations in the Cadmia-Telluria-Tungstate System**
Ersundu A. E., Kriven W.
35th International Conference and Exposition on Advanced Ceramics and Composites (ICACC'11), Florida, United States Of America, 23 - 28 January 2011, pp.1
- LXV. Crystallization Kinetics of TeO₂-B₂O₃ Glasses**
Yardimci D., Çelikbilek Ersundu M., Ersundu A. E., Solak N., Aydın S.
3rd International Congress on Ceramics, Osaka, Japan, 14 - 18 November 2010, pp.1
- LXVI. Formation of the delta-TeO₂ Phase in the Ternary TeO₂-WO₃-CdO System**
Ersundu A. E., Karaduman G., Çelikbilek Ersundu M., Solak N., Aydın S.
3rd International Congress on Ceramics, Osaka, Japan, 14 - 18 November 2010, pp.1
- LXVII. Investigation of the Glass Formation in the TeO₂-CdO System**
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3rd International Congress on Ceramics, Osaka, Japan, 14 - 18 November 2010, pp.1
- LXVIII. Thermal and Microstructural Characterization of B₂O₃ Containing Tellurite Glasses**
Yardimci D., Ersundu A. E., Solak N., Aydın S.
15th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 November 2010, pp.2233-2240
- LXIX. Characterization Studies in the TeO₂-WO₃ System**
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15th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 November 2010, pp.2166-2174
- LXX. Thermal and Microstructural Characterization of TeO₂-CdO Glasses**
Karaduman G., Ersundu A. E., Solak N., Aydın S.
15th International Metallurgy & Materials Congress, İstanbul, Turkey, 11 - 13 November 2010, pp.2224-2231
- LXXI. Characterization Studies in the Glassy Region of the TeO₂-B₂O₃ System**
Yardimci D., Çelikbilek Ersundu M., Ersundu A. E., Solak N., Aydın S.
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- LXXII. Effect of Cooling Conditions on Glass Forming Ability of the TeO₂ - WO₃ System**
Çelikbilek Ersundu M., Ersundu A. E., Solak N., Aydın S.
Materials Science and Technology Conference and Exhibition (MS&T'10), Texas, United States Of America, 17 - 21 October 2010, pp.226-232
- LXXIII. Kinetic Studies on the Tungsten Tellurite Glasses**
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- LXXIV. Phase Studies in the TeO₂-WO₃ System**
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- LXXV. Experimental Phase Studies in the TeO₂-CdO System**
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- LXXVI. Microstructural and Thermal Characterization of the TeO₂-WO₃ System**

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Awards

Ersundu A. E., Odtü Parlar Vakfı Araştırma Teşvik Ödülü, Odtü Prof. Dr. Mustafa N. Parlar Eğitim Ve Araştırma Vakfı, February 2023

Ersundu A. E., Turkish Academy of Sciences (TÜBA) Outstanding Young Scientists Award (GEBİP), Türkiye Bilimler Akademisi, December 2021

ERSUNDU A. E., Best Oral Presentation Award, Materials Research Society of Serbia - 17YRC 2018, December 2018

ERSUNDU A. E., İTÜ 2013 Yılı En Başarılı Tez Ödülü, İstanbul Teknik Üniversitesi, June 2014

ERSUNDU A. E., Metalik Fikirler II. Arge Proje Pazarı, Öğrenci Kategorisi Birincisi, Metalik Fikirler II. Arge Proje Pazarı, November 2013

Non Academic Experience

Güvenli Cam Araştırma Geliştirme Müh. San. Tic. Ltd. Şti.