Asst. Prof. ERDİNÇ EROL

Personal Information

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International Researcher IDs
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Education

Post Doctorate, Abdullah Gul University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 2023 - 2024
Doctorate, Yildiz Technical University, Faculty Of Chemıcal And Metallurgıcal Engıneerıng, Turkey 2018 - 2022
Postgraduate, Karamanoglu Mehmetbey University, Turkey 2015 - 2017
Undergraduate, Gebze Technical University, Turkey 2010 - 2015

Foreign Languages

English

Dissertations

Doctorate, Katı hal aydınlatma uygulamaları için CsPbBr3 perovskit kuantum nokta ve lantanit katkılı cam nanokompozitlerin geliştirilmesi, Yildiz Technical University, Faculty Of Chemıcal And Metallurgıcal Engıneerıng, 2022
Postgraduate, İki adımlı elektrokimyasal kaplama yöntemiyle yeni nesil Cu2XSnS4 (X= Co+2, Fe+2, Mn+2, Ni+2, Zn+2) ince filmlerinin sentezi ve karşıt elektrot olarak boya-duyarlı güneş pili uygulamaları, Karamanoglu Mehmetbey University, 2017

Research Areas

Avesis Research Areas: Lighting Technology, Renewable energy, Material science and engineering, Semiconductor and Superconductor Materials, Optical Properties, Glass Technology and Glass Ceramics, Material Characterization, Nanomaterials
WoS Research Areas: Metallurgy & Metallurgical Engineering, Nanoscience & Nanotechnology, Materials Science, Optics
Scopus Research Areas: General Materials Science

Academic Positions

Assistant Professor, Manisa Celal Bayar University, MÜHENDİSLİK VE DOĞA BİLİMLERİ FAKÜLTESİ, METALURJİ VE MALZEME MÜHENDİSLİĞİ, 2025 - Present
Research Assistant, Manisa Celal Bayar University, MÜHENDİSLİK VE DOĞA BİLİMLERİ FAKÜLTESİ, METALURJİ VE MALZEME MÜHENDİSLİĞİ, 2021 - 2025
Research Assistant, Yildiz Technical University, Faculty Of Chemıcal And Metallurgıcal Engıneerıng, 2018 - 2021
Research Assistant, Manisa Celal Bayar University, MÜHENDİSLİK VE DOĞA BİLİMLERİ FAKÜLTESİ, METALURJİ VE MALZEME MÜHENDİSLİĞİ, 2017 - 2018

Academic and Administrative Experience

Deputy Head of Department, Manisa Celal Bayar University, Mühendislik Ve Doğa Bilimleri Fakültesi, Metalurji Ve Malzeme Mühendisliği, 2025 - Present

Courses

Undergraduate
Malzeme Bilimi, Undergraduate, 2025 - 2026
Thermodynamics of Materials, Undergraduate, 2026 - 2027
Disiplinler Arası Mühendislik Çalışmaları, Undergraduate, 2026 - 2027
Malzeme Bilimi II, Undergraduate, 2024 - 2025
Thermodynamics of Materials, Undergraduate, 2024 - 2025

Articles

I. **Colloidal photodetectors based on engineered multishelled InP based quantum dots**
Akrema A., EROL E., SAVAŞ M., YAZICI A. F., ERDEM T., MUTLUGÜN E.
NANO EXPRESS, vol.7, no.1, 2026 (ESCI, Scopus)

II. **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, Scopus)

III. **Bright white light emission from blue emitting carbon dot-coated Dy3+-doped luminescent glasses**
Özlem B., Korkmaz U., EROL E., Alaş M. Ö., Meray Z., Genç Altürk R., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
Journal of Alloys and Compounds, vol.926, 2022 (SCI-Expanded, Scopus)

IV. **Recyclability of CsPbBr3 quantum dot glass nanocomposites for their long-standing use in white LEDs**
Vahedigharehchopogh N., Erol E., Kıbrıslı O., Genç A., Çelikbilek Ersundu M., Ersundu A. E.
Journal of Materials Chemistry C, vol.10, no.42, pp.16088-16099, 2022 (SCI-Expanded, Scopus)

V. **Ultra-stable Eu3+/Dy3+ 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, Scopus)

VI. **CdSe and CsPbBr3quantum dot Co-doped monolithic glasses as tunable wavelength convertors**
Kibrisli O., EROL E., ERSUNDU A. E., ÇELİKBİLEK ERSUNDU M.
Journal of Physics D: Applied Physics, vol.55, no.10, 2022 (SCI-Expanded, Scopus)

VII. **Color tunable emission from Eu3+and Tm3+co-doped CsPbBr3quantum dot glass nanocomposites**
EROL E., Kibrisli O., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
Physical Chemistry Chemical Physics, vol.24, no.3, pp.1486-1495, 2022 (SCI-Expanded, Scopus)

VIII. **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, Scopus)

IX. **Robust $CsPbBr_3$ and $CdSe/Dy^{3+}$+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, Scopus)

X. **A straightforward approach for high-end anti-counterfeiting applications based on NIR laser-driven lanthanide doped luminescent glasses**
Vahedigharehchopogh N., Kıbrıslı O., EROL E., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
JOURNAL OF MATERIALS CHEMISTRY C, vol.9, no.6, pp.2037-2046, 2021 (SCI-Expanded, Scopus)

XI. **Size-controlled emission of long-time durable $CsPbBr_3$ perovskite quantum dots embedded tellurite glass nanocomposites**
Erol E., Kıbrıslı O., Çelikbilek Ersundu M., Ersundu A. E.
CHEMICAL ENGINEERING JOURNAL, vol.401, 2020 (SCI-Expanded, Scopus)

XII. **The synergistic effect of Er^{3+} and Ho^{3+} on temporal color tuning of upconversion emission in a glass host *via* a facile excitation modulation technique for anti-counterfeiting applications**
EROL E., Kibrisli O., Vahedigharehchopogh N., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.22, no.44, pp.25963-25972, 2020 (SCI-Expanded, Scopus)

XIII. **Noninvasive optical temperature sensing behavior of Ho^{3+} and Ho^{3+}/Er^{3+} doped tellurite glasses through up and down-converted emissions**
Kıbrıslı O., EROL E., Vahedigharehchopogh N., Yousef E. S., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
SENSORS AND ACTUATORS A-PHYSICAL, vol.315, 2020 (SCI-Expanded, Scopus)

XIV. **Enhancing the electron transfer and band potential tuning with long-term stability of ZnO based dye-sensitized solar cells by gallium and tellurium as dual-doping**
Akin S., Erol E., Sonmezoglu S.
ELECTROCHIMICA ACTA, vol.225, pp.243-254, 2017 (SCI-Expanded, Scopus)

Books

I. **Advances in Luminescent Glass Research Towards High-End Applications**
EROL E., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
in: Advances in Glass Research, Shadia Jamil Ikhmayies, Editor, SpringerLink, pp.169-212, 2023

Papers Presented at Peer-Reviewed Scientific Conferences

I. **Katı Hal Aydınlatma Uygulamaları için CsPbBr3 Perovskit Kuantum Nokta Katkılı Cam Nanokompozitlerin Geliştirilmesi**
EROL E., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
XI. Uluslararası Katılımlı Seramik Kongresi, Afyonkarahisar, Turkey, 21 - 23 November 2022, (Summary Text)

II. **Co-ElectrodepositedCu2(Co/Fe)SnS4 Catalyst-Based Dye Sensitized Solar Cells with over 5Efficiency.**
GÜLEN M., EROL E., AKIN S., SÖNMEZOĞLU S.
European Materials Research Society, E-MRS, Warszawa, Poland, 18 - 21 September 2017, (Summary Text)

III. **Synyhesis of CXTS (X= Mn2, Ni2) Thin Films by Two-StepElectrodeposition and Their Application in DSSC as Counter Electrode.**
AKIN S., EROL E., Gülen M., AKMAN E., ÇARBAŞ B., ÖZEL F., SÖNMEZOĞLU S.
European Materials Research Society, E-MRS, Warszawa, Poland, 18 - 21 September 2017, (Summary Text)

Funded Projects

EROL E., MUTLU A., ZAFER C., TUBITAK Project, 3501 - National Young Researcher Career Development Program, Enerji Dönüşüm Uygulamaları için Hibrit Kuantum Nokta Sistemlerinin Geliştirilmesi, 2026 - 2028
EROL E., SARGIN F., Project Supported by Higher Education Institutions, BAP Infrastructure, Ağır Metal İçermeyen Inp/Znse/Zns Kuantum Noktalarının Sentezi ve Optoelektronik Uygulamaları, 2025 - Present
EROL E., KANBUR K., KESİCİ B., Project Supported by Higher Education Institutions, BAP Other, Geri Dönüştürülmüş Camlardan Katı Hal Aydınlatma Teknolojisinde Kullanılmak Üzere Lüminesans Cam Üretimi, 2024 - 2025
EROL E., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E., Project Supported by Higher Education Institutions, Katı Hal Aydınlatma Uygulamaları için CsPbBr3 Perovskit Kuantum Nokta ve Lantanit Katkılı Cam Nanokompozitlerin Geliştirilmesi, 2021 - 2022

Metrics

Publication: 18
Citation (WoS): 432
Citation (Scopus): 471
H-Index (WoS): 11
H-Index (Scopus): 11