

Res. Asst. Utku EKİM

Personal Information

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International Researcher IDs

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Biography

Utku EKİM

Education

Doctorate, Yildiz Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Metallurgical And Materials Engineering, Turkey 2023 - Continues

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Metalurji ve Malzeme Mühendisliği, Turkey 2021 - 2023

Undergraduate, Yildiz Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Metallurgical And Materials Engineering, Turkey 2016 - 2021

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Postgraduate, Samarium and thulium doped luminescent glass-based LEDs in indoor agriculture applications and their effects on plant growth, Yildiz Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Metallurgical And Materials Engineering, 2023

Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Optical Properties, Glass Technology and Glass Ceramics, Material Characterization, Nanomaterials

Academic Positions

Research Assistant, Yildiz Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of

Journal articles indexed in SCI, SSCI, and AHCI

- I. **Full-color dynamic volumetric displays with tunable upconversion emission from RE³⁺-doped glasses (RE = Ho, Tm, Nd, Yb) under NIR laser excitation**
EKİM U., Özkutay D., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
Light: Science and Applications, vol.14, no.1, 2025 (SCI-Expanded)
- II. **Sm²⁺-doped CsPbBr₃ perovskite quantum dot glass nanocomposites for enhanced plant growth lighting**
EKİM U., İLTER E., Çelik H. S., Genç A., Slater T. J., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
Materials Today Chemistry, vol.45, 2025 (SCI-Expanded)
- III. **Tunable photoluminescence and energy transfer in Dy³⁺ and Eu³⁺ co-doped NaCaGd(WO₄)₃ phosphors for pc-WLED applications**
EKİM U., Kachou I., Kallel T., Dammak M., ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E.
Dalton Transactions, vol.54, no.8, pp.3414-3426, 2025 (SCI-Expanded)
- IV. **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)
- V. **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)
- VI. **Glass-based LED system for indoor horticulture: enhanced plant growth through Sm³⁺ and Tm³⁺ co-doped luminescent glasses**
EKİM U., İlter 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)
- VII. **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)

Funded Projects

ERSUNDU A. E., ÇELİKBİLEK ERSUNDU M., EKİM U., DAMMAK M., Project Supported by Higher Education Institutions, Dy³⁺ ve Eu³⁺ Katkılı NaCaGd(WO₄)₃ Esaslı Fosforların Ayarlanabilir Fotoluminesans ve Enerji Transferi Özelliklerinin İncelenmesi ve Fosfor Dönüşümlü Beyaz Işık Yayan Diyot pc-WLED Uygulamaları için Geliştirilmesi, 2024 - Continues

ÇELİKBİLEK ERSUNDU M., YERÇİ S., İlter E., ŞEKERTEKİN B., ERSUNDU A. E., EKİM U., DEBİJE M. G., TSOİ K., ÇELİK H. S., Project Supported by Higher Education Institutions, Fotovoltaik Hücrelerin Enerji Dönüşüm Verimliliğinin Arttırılması Amacıyla Lüminesan Cam Esaslı Spektral Dönüştürücülerin Güneş Hücresi Kapak Camı Olarak Geliştirilmesi, 2024 - Continues

ÇELİKBİLEK ERSUNDU M., ERSUNDU A. E., OSBORNE C., EKİM U., YERÇİ S., CROFT H., RANDLE-BOGGİS R., ASADİ E., Project Supported by Higher Education Institutions, Agri-LSC: Sürdürülebilir tarım uygulamalarına yönelik yeni nesil cam nanokompozit esaslı lüminesan güneş yoğunlaştırıcılar, 2023 - 2025

Metrics

Publication: 7

Citation (Scopus): 35

H-Index (Scopus): 2

Congress and Symposium Activities

4th International Conference on Photonics Research, Working Group, Muğla, Turkey, 2022