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Kişisel Bilgiler

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Biyografi

Assoc. Prof. Evren Mutlugün received the B.Sc degree in Physics from Middle East Technical University in 2005. He got his M.Sc. and Ph.D. degrees, both from Bilkent University Physics Department in 2007 and 2012 respectively. Prior to joining Abdullah Gül University as a faculty of Electrical-Electronics Engineering in 2014, he worked as a National Research Foundation Competitive Research Programme (NRF-CRP) research fellow at Nanyang Technological University, between 2012 and 2014. Since 2015, he is acting as the vice dean of School of Engineering at Abdullah Gul University. His research focuses on the colloidal quantum dot-based exciton harvesting systems for novel optoelectronic applications. He is the recipient of the 2014 BAGEP Science Academy Young Scientist Award, 2017 Turkish Academy of Sciences Outstanding Young Scientist Award, 2019 Young Scientist Award of the Science Heroes Association, and has co-authored numerous conference papers and more than 60 SCI journals in high rank journals in the field.

Eğitim Bilgileri

Doktora, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik, Türkiye 2007 - 2011

Yüksek Lisans, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik, Türkiye 2005 - 2007

Lisans, Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik, Türkiye 2002 - 2005

Yabancı Diller

İngilizce, C1 İleri

Yaptığı Tezler

Doktora, Exciton Harvesting Systems of Nanocrystals, İhsan Doğramacı Bilkent Üniversitesi, Fizik, Fizik, 2012

Yüksek Lisans, Novel Ultraviolet Scintillators based on Semiconductor Quantum Dot Emitters for Significantly Enhanced Photodetection and Photovoltaics , İhsan Doğramacı Bilkent Üniversitesi, Fizik, Fen Fakültesi/Fizik, 2007

Araştırma Alanları

Elektrik-Elektronik Mühendisliği, Elektronik, Nanoteknoloji, Optik ve Fotonik, Metalurji ve Malzeme Mühendisliği, Malzeme Bilimi ve Mühendisliği, Optik Özellikler, Nanomalzemeler, Mühendislik ve Teknoloji

Akademik Unvanlar / Görevler

Doç.Dr., Abdullah Gül Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2017 - Devam Ediyor
Yrd.Doç.Dr., Abdullah Gül Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2013 - Devam Ediyor

Akademik İdari Deneyim

Dekan Yardımcısı, Abdullah Gül Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2015 - Devam Ediyor

BAP Bilimsel Komisyon Üyesi, Abdullah Gül Üniversitesi, 2014 - 2020

Enstitü Müdür Yardımcısı, Abdullah Gül Üniversitesi, 2014 - 2015

Verdiği Dersler

PHYSICS II FOR ELECTRICAL ELECTRONICS ENGINEERING, Lisans, 2020 - 2021

SPECIAL TOPICS IN EEE, Yüksek Lisans, 2020 - 2021

PHYSICS II, Lisans, 2020 - 2021

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Effects of silver nanowires and their surface modification on electromagnetic interference, transport and mechanical properties of an aerospace grade epoxy**
Özkutlu Demirel M., Öztürkmen M. B., SAVAŞ M., MUTLUGÜN E., ERDEM T., Öz Y.
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- II. **Toward sustainable optoelectronics: solution-processed quantum dot photodetector fabrication using a surgical blade**
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- III. **Magnetically controlled anisotropic light emission of DNA-functionalized supraparticles**
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- IV. **Nanowire-Shaped MoS₂@MoO₃ Nanocomposites as a Hole Injection Layer for Quantum Dot Light-Emitting Diodes**
Bastami N., Soheyli E., Arslan A., Sahraei R., YAZICI A. F., MUTLUGÜN E.
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- V. **Color Enrichment Solids of Spectrally Pure Colloidal Quantum Wells for Wide Color Span in Displays**
ERDEM T., SORAN ERDEM Z., Isik F., Shabani F., YAZICI A. F., MUTLUGÜN E., Gaponik N., DEMİR H. V.
ADVANCED OPTICAL MATERIALS, cilt.10, sa.14, 2022 (SCI-Expanded)
- VI. **Superior CdSe/ZnS@Fe₂O₃ Yolk-Shell Nanoparticles as Optically Active MRI Contrast Agents**
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- VII. **Natural Wax-Stabilized Perovskite Nanocrystals as Pen-on-Paper Inks and Doughs**
Ocal S. K., KİREMİTLER N. B., YAZICI A. F., ÇELİK N., MUTLUGÜN E., ÖNSES M. S.
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- VIII. **Meso- π -Extended/Deficient BODIPYs and Low-Band-Gap Donor-Acceptor Copolymers for Organic Optoelectronics**
CAN A., Choi G., ÖZDEMİR R., Park S., Park J. S., Lee Y., DENEME İ., MUTLUGÜN E., Kim C., Kim B. J., et al.
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- IX. **Highly luminescent ZnCdTeS nanocrystals with wide spectral tunability for efficient color-conversion white-light-emitting-diodes**
Soheyli E., Zargoush S., YAZICI A. F., Sahraei R., MUTLUGÜN E.
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- X. **Long-time stable colloidal Zn-Ag-In-S quantum dots with tunable midgap-involved emission**
Sabzevari Z., Sahraei R., Jawhar N. N., YAZICI A. F., MUTLUGÜN E., Soheyli E.
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- XI. **Rational design of chemical bath deposition technique for successful preparation of Mn-doped CdS nanostructured thin films with controlled optical properties**
Kharabaneh F. K., Ghavidel E., Soheyli E., Yazıcı A. F., Jawhar N. N., Mutlugün E., Sahraei R.
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- XII. **Osmotic-Pressure-Induced Nematic Ordering in Suspensions of Laponite and Carboxy Methyl Cellulose**
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- XIII. **A hybridized local and charge transfer excited state for solution-processed non-doped green electroluminescence based on oligo(p-phenyleneethynylene)**
USTA H., Alimli D., ÖZDEMİR R., Tekin E., ALKAN F., Kacar R., Altas A. G., Dabak S., Gurek A. G., MUTLUGÜN E., et al.
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- XIV. **Preparation of highly emissive and reproducible Cu-In-S/ZnS core/shell quantum dots with a mid-gap emission character**
Jawhar N. N., Soheyli E., YAZICI A. F., MUTLUGÜN E., Sahraei R.
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- XV. **Record High External Quantum Efficiency of 19.2% Achieved in Light-Emitting Diodes of Colloidal Quantum Wells Enabled by Hot-Injection Shell Growth**
Liu B., Altintas Y., Wang L., Shendre S., Sharma M., Sun H., Mutlugun E., Demir H. V.
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- XVI. **Transparent Films Made of Highly Scattering Particles**
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- XVII. **Improving performance and stability in quantum dot-sensitized solar cell through single layer graphene/Cu₂S nanocomposite counter electrode**
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- XVIII. **Multiplexed patterning of cesium lead halide perovskite nanocrystals by additive jet printing for efficient white light generation**
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- XIX. **Writing chemical patterns using electrospun fibers as nanoscale inkpots for directed assembly of colloidal nanocrystals**
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- XX. **Giant Alloyed Hot Injection Shells Enable Ultralow Optical Gain Threshold in Colloidal Quantum Wells**
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- XXI. **Cesium-lead based inorganic perovskite quantum-dots as interfacial layer for highly stable perovskite solar cells with exceeding 21% efficiency**
Akin S., ALTINTAS Y., MUTLUGÜN E., Sonmezoglu S.
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- XXII. **Highly Stable, Near-Unity Efficiency Atomically Flat Semiconductor Nanocrystals of CdSe/ZnS Hetero-Nanoplatelets Enabled by ZnS-Shell Hot-Injection Growth**

- Altintas Y., Quliyeva U., Gungor K., Erdem O., Kelestemur Y., Mutlugun E., KOVALENKO M. V., Demir H. V.
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- XXIII. **FRET enabled light harvesting within quantum dot loaded nanofibers**
ALTINTAS Y., KİREMİTLER N. B., GENÇ S., ÖNSES M. S., MUTLUGÜN E.
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- XXIV. **Cd-free quantum dot pellets for efficient white light generation**
ALTINTAS Y., TALPUR M. Y., MUTLUGÜN E.
OPTICS EXPRESS, cilt.25, sa.23, ss.28371-28384, 2017 (SCI-Expanded)
- XXV. **Rec. 2100 color gamut revelation using spectrally ultranarrow emitters**
Genc S., UĞUZ M., YILMAZ O., Mutlugun E.
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- XXVI. **Excitonic interaction amongst InP/ZnS salt pellets**
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- XXVII. **Efficient Forster Resonance Energy Transfer Donors of In(Zn)P/ZnS Quantum Dots**
ALTINTAS Y., TALPUR M. Y., MUTLUGÜN E.
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- XXVIII. **The effect of ligand chain length on the optical properties of alloyed core-shell InPZnS/ZnS quantum dots**
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- XXIX. **CdSe/ZnS quantum dot films for high performance flexible lighting and display applications**
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- XXX. **CdSe/ZnS quantum dot films for high performance flexible lighting and display applications.**
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- XXXI. **Highly Efficient Cd-Free Alloyed Core/Shell Quantum Dots with Optimized Precursor Concentrations**
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- XXXII. **Exciton dynamics in luminescent carbon nanodots: Electron-hole exchange interaction**
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- XXXIII. **Trans-cis isomerization assisted synthesis of solution-processable yellow fluorescent maleic anhydrides for white-light generation**
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- XXXIV. **Electroluminescence Efficiency Enhancement in Quantum Dot Light-Emitting Diodes by Embedding a Silver Nanoisland Layer**
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- XXXV. **Observation of polarized gain from aligned colloidal nanorods**
Gao Y., Van Duong Ta V. D. T., Zhao X., Wang Y., Chen R., Mutlugun E., Fong K. E., Tan S. T., Dang C., Sun X. W., et al.
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- XXXVI. **Light Extraction Efficiency Enhancement of Colloidal Quantum Dot Light-Emitting Diodes Using Large-Scale Nanopillar Arrays**
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- XXXVII. **Colloidal Quantum Dot Light-Emitting Diodes Employing Phosphorescent Small Organic Molecules as Efficient Exciton Harvesters**
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- JOURNAL OF PHYSICAL CHEMISTRY LETTERS, cilt.5, sa.16, ss.2802-2807, 2014 (SCI-Expanded)
- XXXVIII. **Highly Flexible, Electrically Driven, Top-Emitting, Quantum Dot Light-Emitting Stickers**
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- XXXIX. **Hyperbolic metamaterials based on quantum-dot plasmon-resonator nanocomposites**
Zhukovsky S. V., Ozel T., Mutlugun E., Gaponik N., Eychmuller A., Lavrinenko A. V., Demir H. V., Gaponenko S. V.
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- XL. **Quantum dots on vertically aligned gold nanorod monolayer: plasmon enhanced fluorescence**
Peng B., Li Z., Mutlugun E., Hernandez Martinez P. L., Li D., Zhang Q., Gao Y., Demir H. V., Xiong Q.
NANOSCALE, cilt.6, sa.11, ss.5592-5598, 2014 (SCI-Expanded)
- XLI. **Stimulated Emission and Lasing from CdSe/CdS/ZnS Core-Multi-Shell Quantum Dots by Simultaneous Three-Photon Absorption**
Wang Y., Van Duong Ta V. D. T., Gao Y., He T. C., Chen R., Mutlugun E., Demir H. V., Sun H. D.
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- XLII. **Transition metal oxides on organic semiconductors**
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- XLIII. **Nanosecond colloidal quantum dot lasers for sensing**
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- XLIV. **Solution Processed Tungsten Oxide Interfacial Layer for Efficient Hole-Injection in Quantum Dot Light-Emitting Diodes**
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- XLV. **Stable, Efficient, and All-Solution-Processed Quantum Dot Light-Emitting Diodes with Double-Sided Metal Oxide Nanoparticle Charge Transport Layers**
Yang X., Ma Y., Mutlugun E., Zhao Y., Leck K. S., Tan S. T., Demir H. V., Zhang Q., Du H., Sun X. W.
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- XLVI. **AC-driven, color-and brightness-tunable organic light-emitting diodes constructed from an electron only device**
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- XLVIII. **Observation of Selective Plasmon-Exciton Coupling in Nonradiative Energy Transfer: Donor-Selective versus Acceptor-Selective Plexcitons**
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- XLIX. **Observation of Biexcitons in Nanocrystal Solids in the Presence of Photocharging**
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- L. **Plasmonic light-sensitive skins of nanocrystal monolayers**
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- LI. **Bio-nanohybrids of quantum dots and photoproteins facilitating strong nonradiative energy transfer**
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- LII. **Large-Area (over 50 cm x 50 cm) Freestanding Films of Colloidal InP/ZnS Quantum Dots**

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- LIII. **Excitonic enhancement of nonradiative energy transfer from a quantum well in the optical near field of energy gradient quantum dots**
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- LIV. **Quantum dot integrated LEDs using photonic and excitonic color conversion**
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- LV. **Photocatalytic hybrid nanocomposites of metal oxide nanoparticles enhanced towards the visible spectral range**
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- LVI. **Spatially Selective Assembly of Quantum Dot Light Emitters in an LED Using Engineered Peptides**
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- LVII. **Anisotropic Emission from Multi layered Plasmon Resonator Nanocomposites of Isotropic Semiconductor Quantum Dots**
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- LVIII. **Photovoltaic nanopillar radial junction diode architecture enhanced by integrating semiconductor quantum dot nanocrystals as light harvesters**
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- LIX. **Highly efficient nonradiative energy transfer mediated light harvesting in water using aqueous CdTe quantum dot antennas**
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- LX. **Highly efficient nonradiative energy transfer using charged CdSe/ZnS nanocrystals for light-harvesting in solution**
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- LXI. **Structural tuning of color chromaticity through nonradiative energy transfer by interspacing CdTe nanocrystal monolayers**
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- LXII. **Selective enhancement of surface-state emission and simultaneous quenching of interband transition in white-luminophor CdS nanocrystals using localized plasmon coupling**
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- LXIII. **Tuning shades of white light with multi-color quantum-dot-quantum-well emitters based on onion-like CdSe-ZnS heteronanocrystals**
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- LXIV. **Dual-color emitting quantum-dot-quantum-well CdSe-ZnS heteronanocrystals hybridized on InGaN/GaN light emitting diodes for high-quality white light generation**
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- LXV. **Photovoltaic nanocrystal scintillators hybridized on Si solar cells for enhanced conversion efficiency in UV**
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- LXVI. **White emitting CdS quantum dot nanoluminophores hybridized on near-ultraviolet LEDs for high-quality white light generation and tuning**
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- LXVII. **Localized plasmon-engineered spontaneous emission of CdSe/ZnS nanocrystals closely-packed in the proximity of Ag nanoisland films for controlling emission linewidth, peak, and intensity**
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- II. **Plasmon Enhanced Emission of Perovskite Quantum Dot Films**
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- I. **Simple, sustainable fabrication of fully solution-processed, transparent, metal-semiconductor-metal photodetectors using a surgical blade as an alternative to conventional tools**
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- III. **Effect of ionic liquids on Cu₂S counter electrode-based quantum dot-sensitized solar cells**
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- VI. **Arrays of multi-color emitting cesium lead halide perovskite nanocrystals and efficient white light generation by tailored anion exchange reactions and electrohydrodynamic jet printing**
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Bilimsel Kuruluşlardaki Üyelikler / Görevler

TUBITAK, Danışma Kurulu Üyesi, 2021 - Devam Ediyor , Türkiye

Metrikler

Yayın: 114

Atıf (WoS): 2111

Atıf (Scopus): 2591

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H-İndeks (Scopus): 30

Kongre ve Sempozyum Katılımı Faaliyetleri

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TUBITAK-Helmholtz Association Workshop, Davetli Konuşmacı, Kocaeli, Türkiye, 2008
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Akademi Dışı Deneyim

Şirket, NANOME Nano Teknoloji ArGe Danşmanlık Sanayi ve Ticaret Ltd. Şti. , ArGe