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Personal Information

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Education Information

Doctorate, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik, Turkey 2007 - 2011

Postgraduate, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik, Turkey 2005 - 2007

Undergraduate, Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik, Turkey 2002 - 2005

Foreign Languages

English, C1 Advanced

Dissertations

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

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

Research Areas

Electrical and Electronics Engineering, Electronic, Nanotechnology, Optics and Photonics, Metallurgical and Materials Engineering, Material science and engineering, Optical Properties, Nanomaterials, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Abdullah Gul University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2017 - Continues

Assistant Professor, Abdullah Gul University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2013 - Continues

Academic and Administrative Experience

Vice Dean, Abdullah Gul University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2015 - Continues

BAP Scientific Commissioner, Abdullah Gul University, 2014 - 2020

Assistant Director of the Institute, Abdullah Gul University, 2014 - 2015

Courses

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

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **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.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.54, no.50, 2021 (Journal Indexed in SCI)
- II. **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.
CERAMICS INTERNATIONAL, vol.47, no.4, pp.5523-5533, 2021 (Journal Indexed in SCI)
- III. **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.
JOURNAL OF APPLIED PHYSICS, vol.129, no.6, 2021 (Journal Indexed in SCI)
- IV. **Osmotic-Pressure-Induced Nematic Ordering in Suspensions of Laponite and Carboxy Methyl Cellulose**
Xu P., YAZICI A. F., ERDEM T., Lekkerkerker H. N. W., MUTLUGÜN E., Eiser E.
JOURNAL OF PHYSICAL CHEMISTRY B, vol.124, no.42, pp.9475-9481, 2020 (Journal Indexed in SCI)
- V. **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.
JOURNAL OF MATERIALS CHEMISTRY C, vol.8, no.24, pp.8047-8060, 2020 (Journal Indexed in SCI)
- VI. **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.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.824, 2020 (Journal Indexed in SCI)
- VII. **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.
ADVANCED MATERIALS, vol.32, no.8, 2020 (Journal Indexed in SCI)
- VIII. **Transparent Films Made of Highly Scattering Particles**
Erdem T., Yang L., Xu P., ALTINTAS Y., O'Neil T., Caciagli A., Ducati C., MUTLUGÜN E., Scherman O. A., Eiser E.
LANGMUIR, vol.36, no.4, pp.911-918, 2020 (Journal Indexed in SCI)
- IX. **Multiplexed patterning of cesium lead halide perovskite nanocrystals by additive jet printing for efficient white light generation**
ALTINTAS Y., TÖRÜN İ., YAZICI A. F., Beskacak E., ERDEM T., ÖNSES M. S., MUTLUGÜN E.
CHEMICAL ENGINEERING JOURNAL, vol.380, 2020 (Journal Indexed in SCI)
- X. **Improving performance and stability in quantum dot-sensitized solar cell through single layer graphene/Cu₂S nanocomposite counter electrode**
Akman E., ALTINTAS Y., Gulen M., Yilmaz M., MUTLUGÜN E., Sonmezoglu S.
RENEWABLE ENERGY, vol.145, pp.2192-2200, 2020 (Journal Indexed in SCI)
- XI. **Writing chemical patterns using electrospun fibers as nanoscale inkpots for directed assembly of colloidal nanocrystals**
KİREMİTLER N. B., TÖRÜN İ., ALTINTAS Y., Patarroyo J., Demir H. V., Puentes V. F., Mutlugun E., ÖNSES M. S.
NANOSCALE, vol.12, no.2, pp.895-903, 2020 (Journal Indexed in SCI)
- XII. **Giant Alloyed Hot Injection Shells Enable Ultralow Optical Gain Threshold in Colloidal Quantum Wells**
Altintas Y., Gungor K., Gao Y., Sak M., Quliyeva U., Bappi G., Mutlugun E., Sargent E. H., Demir H. V.
ACS NANO, vol.13, no.9, pp.10662-10670, 2019 (Journal Indexed in SCI)

- XIII. **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.
NANO ENERGY, vol.60, pp.557-566, 2019 (Journal Indexed in SCI)
- XIV. **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.
SMALL, vol.15, no.8, 2019 (Journal Indexed in SCI)
- XV. **FRET enabled light harvesting within quantum dot loaded nanofibers**
ALTINTAS Y., KİREMİTLER N. B. , GENÇ S., ÖNSES M. S. , MUTLUGÜN E.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.51, no.6, 2018 (Journal Indexed in SCI)
- XVI. **Cd-free quantum dot pellets for efficient white light generation**
ALTINTAS Y., TALPUR M. Y. , MUTLUGÜN E.
OPTICS EXPRESS, vol.25, no.23, pp.28371-28384, 2017 (Journal Indexed in SCI)
- XVII. **Rec. 2100 color gamut revelation using spectrally ultranarrow emitters**
Genc S., UĞUZ M., YILMAZ O., Mutlugun E.
OPTICAL ENGINEERING, vol.56, no.11, 2017 (Journal Indexed in SCI)
- XVIII. **Excitonic interaction amongst InP/ZnS salt pellets**
ALTINTAS Y., YAZICI A. F. , ÜNLÜ M., DADI Ş., GENÇ S., MUTLUGÜN E.
JOURNAL OF MATERIALS CHEMISTRY C, vol.5, no.29, pp.7328-7336, 2017 (Journal Indexed in SCI)
- XIX. **Efficient Forster Resonance Energy Transfer Donors of In(Zn)P/ZnS Quantum Dots**
ALTINTAS Y., TALPUR M. Y. , MUTLUGÜN E.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.121, no.5, pp.3034-3043, 2017 (Journal Indexed in SCI)
- XX. **The effect of ligand chain length on the optical properties of alloyed core-shell InPZnS/ZnS quantum dots**
ALTINTAS Y., TALPUR M. Y. , MUTLUGÜN E.
Journal of Alloys and Compounds, vol.711, pp.335-341, 2017 (Journal Indexed in SCI)
- XXI. **CdSe/ZnS quantum dot films for high performance flexible lighting and display applications**
ALTINTAS Y., GENÇ S., Talpur M. Y. , MUTLUGÜN E.
NANOTECHNOLOGY, vol.27, no.29, 2016 (Journal Indexed in SCI)
- XXII. **CdSe/ZnS quantum dot films for high performance flexible lighting and display applications.**
ALTINTAS Y., GENÇ S., TALPUR M. Y. , MUTLUGÜN E.
NANOTECHNOLOGY, pp.295604-295612, 2016 (Journal Indexed in SCI)
- XXIII. **Highly Efficient Cd-Free Alloyed Core/Shell Quantum Dots with Optimized Precursor Concentrations**
ALTINTAS Y., TALPUR M. Y. , ÜNLÜ M., MUTLUGÜN E.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.120, no.14, pp.7885-7892, 2016 (Journal Indexed in SCI)
- XXIV. **Exciton dynamics in luminescent carbon nanodots: Electron-hole exchange interaction**
Peng B, Lu X, Chen S, Huan C. H. A. , Xiong Q, Mutlugun E., Demir H. V. , Yu S. F.
NANO RESEARCH, vol.9, no.2, pp.549-559, 2016 (Journal Indexed in SCI)
- XXV. **Trans-cis isomerization assisted synthesis of solution-processable yellow fluorescent maleic anhydrides for white-light generation**
Özdemir M., GENÇ S., ÖZDEMİR R., ALTINTAS Y., Citir M., Sen U., MUTLUGÜN E., USTA H.
SYNTHETIC METALS, vol.210, pp.192-200, 2015 (Journal Indexed in SCI)
- XXVI. **Electroluminescence Efficiency Enhancement in Quantum Dot Light-Emitting Diodes by Embedding a Silver Nanoisland Layer**
Yang X, Hernandez-Martinez P. L. , Dang C., Mutlugun E, Zhang K, Demir H. V. , Sun X. W.
ADVANCED OPTICAL MATERIALS, vol.3, no.10, pp.1439-1445, 2015 (Journal Indexed in SCI)
- XXVII. **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.
NANOSCALE, vol.7, no.15, pp.6481-6486, 2015 (Journal Indexed in SCI)
- XXVIII. **Light Extraction Efficiency Enhancement of Colloidal Quantum Dot Light-Emitting Diodes Using**

Large-Scale Nanopillar Arrays

Yang X., Dev K., Wang J., Mutlugun E., Dang C., Zhao Y., Liu S., Tang Y., Tan S. T., Sun X. W., et al.
ADVANCED FUNCTIONAL MATERIALS, vol.24, no.38, pp.5977-5984, 2014 (Journal Indexed in SCI)

- XXIX. **Colloidal Quantum Dot Light-Emitting Diodes Employing Phosphorescent Small Organic Molecules as Efficient Exciton Harvesters**
Mutlugun E., Guzelturk B., Abiyasa A. P., Gao Y., Sun X. W., Demir H. V.
JOURNAL OF PHYSICAL CHEMISTRY LETTERS, vol.5, no.16, pp.2802-2807, 2014 (Journal Indexed in SCI)
- XXX. **Highly Flexible, Electrically Driven, Top-Emitting, Quantum Dot Light-Emitting Stickers**
Yang X., Mutlugun E., Dang C., Dev K., Gao Y., Tan S. T., Sun X. W., Demir H. V.
ACS NANO, vol.8, no.8, pp.8224-8231, 2014 (Journal Indexed in SCI)
- XXXI. **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.
OPTICS EXPRESS, vol.22, no.15, pp.18290-18298, 2014 (Journal Indexed in SCI)
- XXXII. **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, vol.6, no.11, pp.5592-5598, 2014 (Journal Indexed in SCI)
- XXXIII. **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.
ADVANCED MATERIALS, vol.26, no.18, pp.2954-2961, 2014 (Journal Indexed in SCI)
- XXXIV. **Transition metal oxides on organic semiconductors**
Zhao Y., Zhang J., Liu S., Gao Y., Yang X., Leck K. S., Abiyasa A. P., Divayana Y., Mutlugun E., Tan S. T., et al.
ORGANIC ELECTRONICS, vol.15, no.4, pp.871-877, 2014 (Journal Indexed in SCI)
- XXXV. **Nanosecond colloidal quantum dot lasers for sensing**
Guilhbert B., Foucher C., Haughey A., Mutlugun E., Gao Y., Herrnsdorf J., Sun H. D., Demir H. V., Dawson M. D., Laurand N.
OPTICS EXPRESS, vol.22, no.6, pp.7308-7319, 2014 (Journal Indexed in SCI)
- XXXVI. **Solution Processed Tungsten Oxide Interfacial Layer for Efficient Hole-Injection in Quantum Dot Light-Emitting Diodes**
Yang X., Mutlugun E., Zhao Y., Gao Y., Leck K. S., Ma Y., Ke L., Tan S. T., Demir H. V., Sun X. W.
SMALL, vol.10, no.2, pp.247-252, 2014 (Journal Indexed in SCI)
- XXXVII. **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.
ACS APPLIED MATERIALS & INTERFACES, vol.6, no.1, pp.495-499, 2014 (Journal Indexed in SCI)
- XXXVIII. **AC-driven, color-and brightness-tunable organic light-emitting diodes constructed from an electron only device**
Zhao Y., Chen R., Gao Y., Leck K. S., Yang X., Liu S., Abiyasa A. P., Divayana Y., Mutlugun E., Tan S. T., et al.
ORGANIC ELECTRONICS, vol.14, no.12, pp.3195-3200, 2013 (Journal Indexed in SCI)
- XXXIX. **Quantum Dot Light-Emitting Diode with Quantum Dots Inside the Hole Transporting Layers**
Leck K. S., Divayana Y., Zhao D., Yang X., Abiyasa A. P., Mutlugun E., Gao Y., Liu S., Tan S. T., Sun X. W., et al.
ACS APPLIED MATERIALS & INTERFACES, vol.5, no.14, pp.6535-6540, 2013 (Journal Indexed in SCI)
- XL. **Observation of Selective Plasmon-Exciton Coupling in Nonradiative Energy Transfer: Donor-Selective versus Acceptor-Selective Plexcitons**
Ozel T., Hernandez-Martinez P. L., Mutlugun E., Akin O., Nizamoglu S., Ozel I. O., Zhang Q., Xiong Q., Demir H. V.
NANO LETTERS, vol.13, no.7, pp.3065-3072, 2013 (Journal Indexed in SCI)
- XLI. **Observation of Biexcitons in Nanocrystal Solids in the Presence of Photocharging**
Cihan A. F., Martinez P. L. H., Kelestemur Y., Mutlugun E., Demir H. V.
ACS NANO, vol.7, no.6, pp.4799-4809, 2013 (Journal Indexed in SCI)
- XLII. **Plasmonic light-sensitive skins of nanocrystal monolayers**
Akhavan S., Gungor K., Mutlugun E., Demir H. V.

NANOTECHNOLOGY, vol.24, no.15, 2013 (Journal Indexed in SCI)

- XLIII. **Bio-nanohybrids of quantum dots and photoproteins facilitating strong nonradiative energy transfer**
Seker U. O. S. , Mutlugun E., Hernandez-Martinez P. L. , Sharma V. K. , Lesnyak V., Gaponik N., Eychmueller A., Demir H. V.
NANOSCALE, vol.5, no.15, pp.7034-7040, 2013 (Journal Indexed in SCI)
- XLIV. **Large-Area (over 50 cm x 50 cm) Freestanding Films of Colloidal InP/ZnS Quantum Dots**
Mutlugun E., Hernandez-Martinez P. L. , Eroglu C., Coskun Y., Erdem T., Sharma V. K. , Unal E., Panda S. K. , Hickey S. G. , Gaponik N., et al.
NANO LETTERS, vol.12, no.8, pp.3986-3993, 2012 (Journal Indexed in SCI)
- XLV. **Excitonic enhancement of nonradiative energy transfer from a quantum well in the optical near field of energy gradient quantum dots**
Nizamoglu S., Hernandez-Martinez P. L. , Mutlugun E., Karatay D. U. , Demir H. V.
APPLIED PHYSICS LETTERS, vol.100, no.24, 2012 (Journal Indexed in SCI)
- XLVI. **Quantum dot integrated LEDs using photonic and excitonic color conversion**
Demir H. V. , Nizamoglu S., Erdem T., Mutlugun E., Gaponik N., Eychmueller A.
NANO TODAY, vol.6, no.6, pp.632-647, 2011 (Journal Indexed in SCI)
- XLVII. **Photocatalytic hybrid nanocomposites of metal oxide nanoparticles enhanced towards the visible spectral range**
Perkgoz N. K. , Toru R. S. , Unal E., Sefunc M. A. , Tek S., Mutlugun E., Soganci I. M. , Celiker H., Celiker G., Demir H. V.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.105, pp.77-85, 2011 (Journal Indexed in SCI)
- XLVIII. **Spatially Selective Assembly of Quantum Dot Light Emitters in an LED Using Engineered Peptides**
Demir H. V. , Seker U. O. S. , Zengin G., Mutlugun E., Sari E., Tamerler C., Sarikaya M.
ACS NANO, vol.5, no.4, pp.2735-2741, 2011 (Journal Indexed in SCI)
- XLIX. **Anisotropic Emission from Multi layered Plasmon Resonator Nanocomposites of Isotropic Semiconductor Quantum Dots**
Ozel T., Nizamoglu S., Sefunc M. A. , Samarskaya O., Ozel I. O. , Mutlugun E., Lesnyak V., Gaponik N., Eychmuller A., Gaponenko S. V. , et al.
ACS NANO, vol.5, no.2, pp.1328-1334, 2011 (Journal Indexed in SCI)
- L. **Photovoltaic nanopillar radial junction diode architecture enhanced by integrating semiconductor quantum dot nanocrystals as light harvesters**
Guzelturk B., Mutlugun E., Wang X., Pey K. L. , Demir H. V.
APPLIED PHYSICS LETTERS, vol.97, no.9, 2010 (Journal Indexed in SCI)
- LI. **Highly efficient nonradiative energy transfer mediated light harvesting in water using aqueous CdTe quantum dot antennas**
Mutlugun E., Samarskaya O., Ozel T., Cicek N., Gaponik N., Eychmueller A., Demir H. V.
OPTICS EXPRESS, vol.18, no.10, pp.10720-10730, 2010 (Journal Indexed in SCI)
- LII. **Highly efficient nonradiative energy transfer using charged CdSe/ZnS nanocrystals for light-harvesting in solution**
Mutlugun E., Nizamoglu S., Demir H. V.
APPLIED PHYSICS LETTERS, vol.95, no.3, 2009 (Journal Indexed in SCI)
- LIII. **Structural tuning of color chromaticity through nonradiative energy transfer by interspacing CdTe nanocrystal monolayers**
Cicek N., Nizamoglu S., Ozel T., Mutlugun E., Karatay D. U. , Lesnyak V., Otto T., Gaponik N., Eychmueller A., Demir H. V.
APPLIED PHYSICS LETTERS, vol.94, no.6, 2009 (Journal Indexed in SCI)
- LIV. **Selective enhancement of surface-state emission and simultaneous quenching of interband transition in white-luminophor CdS nanocrystals using localized plasmon coupling**
Ozel T., Soganci I. M. , Nizamoglu S., Huyal I. O. , Mutlugun E., Sapra S., Gaponik N., Eychmueller A., Demir H. V.
NEW JOURNAL OF PHYSICS, vol.10, 2008 (Journal Indexed in SCI)
- LV. **Tuning shades of white light with multi-color quantum-dot-quantum-well emitters based on onion-like CdSe-ZnS heteronanocrystals**

Demir H. V. , Nizamoglu S., Mutlugun E., Ozel T., Sapra S., Gaponik N., Eychmueller A.
NANOTECHNOLOGY, vol.19, no.33, 2008 (Journal Indexed in SCI)

- LVI. **Photovoltaic nanocrystal scintillators hybridized on Si solar cells for enhanced conversion efficiency in UV**
Mutlugun E., Soganci I. M. , Demir H. V.
OPTICS EXPRESS, vol.16, no.6, pp.3537-3545, 2008 (Journal Indexed in SCI)
- LVII. **Dual-color emitting quantum-dot-quantum-well CdSe-ZnS heteronanocrystals hybridized on InGaN/GaN light emitting diodes for high-quality white light generation**
Nizamoglu S., Mutlugun E., Oezel T., Demir H. V. , Sapra S., Gaponik N., Eychmueller A.
APPLIED PHYSICS LETTERS, vol.92, no.11, 2008 (Journal Indexed in SCI)
- LVIII. **White emitting CdS quantum dot nanoluminophores hybridized on near-ultraviolet LEDs for high-quality white light generation and tuning**
Nizamoglu S., Mutlugun E., Akyuz O., Perkgoz N. K. , Demir H. V. , Liebscher L., Sapra S., Gaponik N., Eychmueller A.
NEW JOURNAL OF PHYSICS, vol.10, 2008 (Journal Indexed in SCI)
- LIX. **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**
Soganci I. M. , Nizamoglu S., Mutlugun E., Akin O., Demir H. V.
OPTICS EXPRESS, vol.15, no.22, pp.14289-14298, 2007 (Journal Indexed in SCI)
- LX. **White light generation tuned by dual hybridization of nanocrystals and conjugated polymers**
Demir H. V. , Nizamoglu S., Ozel T., Mutlugun E., Huyal I. O. , Sari E., Holder E., Tian N.
NEW JOURNAL OF PHYSICS, vol.9, 2007 (Journal Indexed in SCI)
- LXI. **Nanocrystal hybridized scintillators for enhanced detection and imaging on Si platforms in UV**
Mutlugun E., Soganci I. M. , Demir H. V.
OPTICS EXPRESS, vol.15, no.3, pp.1128-1134, 2007 (Journal Indexed in SCI)
- LXII. **Comparative study of optically activated nanocomposites with photocatalytic TiO₂ and ZnO nanoparticles for massive environmental decontamination**
Tek S., Mutlugun E., Soganci I. M. , Perkgoz N. K. , Yucel D., Celiker G., Demir H. V.
JOURNAL OF NANOPHOTONICS, vol.1, 2007 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Solid-State Encapsulation and Color Tuning in Films of Cesium Lead Halide Perovskite Nanocrystals for White Light Generation**
Torun I., Altintas Y., Yazıcı A. F. , Mutlugün E., Önses M. S.
ACS APPLIED NANO MATERIALS, vol.2, pp.1185-1193, 2019 (Journal Indexed in ESCI)
- II. **Plasmon Enhanced Emission of Perovskite Quantum Dot Films**
DADI Ş., ALTINTAS Y., Beskazak E., MUTLUGÜN E.
MRS ADVANCES, vol.3, no.14, pp.733-739, 2018 (Journal Indexed in ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Color Simulation and Demonstration of Perovskite Nanocrystal Filters for Wide Color Gamut Displays**
GENÇ S., YAZICI A. F. , Beskazak E., Uran C., MUTLUGÜN E.
31st Annual Conference of the IEEE Photonics Society, IPC 2018, Virginia, United States Of America, 30 September - 04 October 2018
- II. **Effect of ionic liquids on Cu₂S counter electrode-based quantum dot-sensitized solar cells**
TEKİN B., ALTINTAS Y., GÜLEN M., AKMAN E., MUTLUGÜN E., SÖNMEZOĞLU S.
International Conference on Photovoltaic Science and Technologies(PVCON), 4 - 06 July 2018

- III. **Redesign of commercial color filters for color enriched LCDs**
Genç S., Uran C., Mutlugün E.
International Conference on Optics and Photonics (OPTO) 2018, Gdansk, Poland, 4 - 07 July 2018
- IV. **The Effect of Tetraethylorthosilicate on the Performance of CdSe/ZnS Core-shell Quantum Dots Sensitized Solar Cells (QDSSC)**
AKMAN E., ALTINTAS Y., GÜLEN M., TEKİN B., UZUNER B. E. , ARSLAN H., MUTLUGÜN E., SÖNMEZOĞLU S.
The International Conference on Materials Science, Machine and Automotive Engineerings and Technology, 10 - 12 April 2018
- V. **Arrays of multi-color emitting cesium lead halide perovskite nanocrystals and efficient white light generation by tailored anion exchange reactions and electrohydrodynamic jet printing**
ALTINTAS Y., TÖRÜN İ., YAZICI A. F. , Beskazak E., ÖNSES M. S. , MUTLUGÜN E.
Solid-State Lighting, SSL 2018, Singapore, Singapore, 5 - 08 November 2018
- VI. **Plasmon Enhanced Emission of Perovskite Quantum Dot Films**
MUTLUGÜN E., DADI Ş., ALTINTAS Y., BEŞKAZAK E.
2017 MRS Fall Meeting, 26 November - 01 December 2017
- VII. **The Effect of Fourth Color Component on Color Gamut Enhancement**
GENÇ S., UĞUZ M., MUTLUGÜN E.
IEEE Photonics Conference 2017, Florida, United States Of America, 1 - 05 October 2017
- VIII. **The effect of fourth color component on enhancement of color gamut**
GENÇ S., Uguz M., MUTLUGÜN E.
30th Annual Conference of the IEEE-Photonics-Society (IPC), Florida, United States Of America, 1 - 05 October 2017, pp.227-228
- IX. **Optical Properties of High Quality Cd-free CuInS, CuInGaS and ZnAgInS Quantum Dots**
ALTINTAS Y., MUTLUGÜN E.
33. International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, pp.180
- X. **Synthesis and Characterization of High Quality Red Emitting CsPbBr_{3-x} Perovskite QDs**
ALTINTAS Y., Beskazak E., MUTLUGÜN E.
33. International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, pp.187
- XI. **Quantum Dot Integrated Nanofibers for White LEDs**
MUTLUGÜN E., ALTINTAS Y., KİREMİTLER N. B. , GENÇ S., ÖNSES M. S.
Materials Research Society, MRS 2017 Spring Meeting, Arizona, United States Of America, 17 - 21 April 2017
- XII. **Saturated Energy Transfer among InP/ZnS Quantum Dot Solids**
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- XIII. **Polymeric Nanocrystal Sheets for Efficient Lighting and Display Applications**
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- XIV. **Nanocrystal Sheets for Efficient Lighting and Display Applications**
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- XV. **InP/ZnS Based Nanocrystal Sheets For Biolabeling Applications**
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- XVIII. **12th International Nanoscience and Nanotechnology Conference**
MUTLUGÜN E.
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- XIX. **Overcoating Alloyed InPZnS Quantum Dots for Record High Quantum Efficiency and Narrow Size Distribution Through Optimized Precursor Concentration**
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- XX. **Color tunable highly efficient Cd-free quantum dots utilized by core growth temperature effect**
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- XXIV. **Nanocrystal LEDs with enhanced external quantum efficiency enabled by the use of phosphorescent molecules**
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- XXVII. **Observation of anisotropic emission from semiconductor quantum dots in nanocomposites of metal nanoparticles**
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- XXX. **Architectural tuning of color chromaticity by controlled nonradiative resonance energy transfer in CdTe nanocrystal solids**

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XXXI. Highly efficient FRET based light harvesting using nanocrystals

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LEOS 2008 - 21st Annual Meeting of the IEEE Lasers and Electro-Optics Society, Newport Beach, CA, USA, 9 - 13 November 2008

XXXIII. Multi material specific targeted self assembly of nanocrystal emitters using genetically engineered peptides on optoelectronic microchips

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XXXIV. Surface state emission enhancement in white luminophor CdS nanocrystals using localized plasmon coupling

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XXXV. Multi layered CdSe ZnS CdSe heteronanocrystals to generate and tune white light

Sedat N., MUTLUGÜN E., Tuncay O., DEMİR H. V. , Sameer S., Nikolai G., Alexander E.

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XXXVI. Light harvesting positively charged nanocrystals for strong energy transfer to dye molecules

MUTLUGÜN E., DEMİR H. V.

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XXXVII. High Quality White Light Generation using Dually Hybridized Nanocrystals and Conjugated Polymers

Sedat N., Tuncay O., MUTLUGÜN E., Ilkem Ozge H., Emre S., Nan T., Elisabeth H., DEMİR H. V.

LEOS 2007 - IEEE Lasers and Electro-Optics Society Annual Meeting Conference Proceedings, Lake Buena Vista, FL, USA, 21 - 25 October 2007

XXXVIII. Localized plasmon engineered spontaneous emission of CdSe ZnS nanocrystals closely packed in the proximity of Ag nanoislands

Ibrahim Murat S., Sedat N., MUTLUGÜN E., DEMİR H. V.

LEOS 2007 - IEEE Lasers and Electro-Optics Society Annual Meeting Conference Proceedings, Lake Buena Vista, FL, USA, 21 - 25 October 2007

XXXIX. White CdS Nanoluminophore based Tunable Hybrid Light Emitting Diodes

Sedat N., MUTLUGÜN E., Ozgun A., Nihan Kosku P., DEMİR H. V. , Lydia L., Sameer S., Nikolai G., Alexander E.

LEOS 2007 - IEEE Lasers and Electro-Optics Society Annual Meeting Conference Proceedings, Lake Buena Vista, FL, USA, 21 - 25 October 2007

XL. CdSe ZnS core shell nanocrystal based scintillators for enhanced detection in UV

DEMİR H. V. , Ibrahim S., MUTLUGÜN E.

2006 IEEE LEOS Annual Meeting Conference Proceedings, Montreal, QC, Canada, 29 October - 02 November 2006

XLI. Size effect in optical activation of TiO₂ nanoparticles in photocatalytic process

Ibrahim S., MUTLUGÜN E., Sumeyra T., DEMİR H. V. , Dilek Y., Gulsen C.

2006 IEEE LEOS Annual Meeting Conference Proceedings, Montreal, QC, Canada, 29 October - 02 November 2006

Supported Projects

Mutlugün E., ERDEM T., TUBITAK Project, İleri Malzeme Yüksek Teknoloji Platformları ile Elektronik ve Optik Bileşen Üretimi için Stratejik Ar-Ge Birliği, 2021 - 2024
Mutlugün E., Company, Kuantum Nokta LED aygıtların geliştirilmesi, 2021 - 2023
Mutlugün E., KOSGEB, Ekstrüzyon ile Nanokristalli Ekran Bileşeni Geliştirilmesi, 2020 - 2021
Mutlugün E., TUBITAK Project, LCD Ekranlar için Nanokristalli Işık Kılavuz Tabakası, 2019 - 2021
Mutlugün E., TUBITAK Project, Hibrit Kuantum Noktaçık-Nanofiber Esnek Elektrolüminesant Aygıtlar, 2017 - 2019
Mutlugün E., TUBITAK Project, LCD ekranlarda renk zenginleştirme, 2015 - 2017
Mutlugün E., TUBITAK Project, Esnek Kuantum Noktaçık Tabanlı Platformlarda Üretilen Yenilikçi Organik Işık Saçan Diyotlar, 2014 - 2017

Memberships / Tasks in Scientific Organizations

TUBITAK, Member of Advisory Board, 2021 - Continues, Turkey

Edit Congress and Symposium Activities

Materials Research Society 2016 Fall Meeting -Polymeric Nanocrystal Sheets for Efficient Lighting and Display Applications, Attendee, United States Of America, 2016
23rd IEEE Annual Photonics Society Meeting/Light-harvesting semiconductor quantum dot nanocrystals integrated on photovoltaic radial junction nanopillars, Attendee, United States Of America, 2010
Nanotechnology Days, Invited Speaker, Bursa, Turkey, 2010
METU Department of Physics, Invited Speaker, Ankara, Turkey, 2009
Workshop on Nanoelectronics and Nanophotonics, Invited Speaker, Çankırı, Turkey, 2009
4. Industrial Engineering Summit Meeting (EMSAZ 2008), Invited Speaker, Bursa, Turkey, 2008
TUBITAK-Helmholtz Association Workshop, Invited Speaker, Kocaeli, Turkey, 2008
Nanoscience and Nanotechnology Conference (NANOTR IV), Invited Speaker, İstanbul, Turkey, 2008
Nanotechnology Days, Invited Speaker, Ankara, Turkey, 2007

Citations

Total Citations (WOS):1946
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Scholarships

Graduate Student Award, Other International Organizations, 2010 - Continues

Awards

Mutlugün E., Genç Bilim İnsanı, Bilim Kahramanları Derneği, April 2019
MUTLUGÜN E., GEBİP, TÜBA, November 2017
MUTLUGÜN E., Global Young Academy Membership, Global Young Academy, June 2016
MUTLUGÜN E., The Science Academy Young Scientist Award, BAGEP, June 2014
MUTLUGÜN E., Outstanding Scientist Award for the research works on the "light generation using quantum dots, FABED, May 2014

Non Academic Experience

Company, NANOME Nano Teknoloji ArGe Danřmanlık Sanayi ve Ticaret Ltd. řti. , ArGe