

Melvin John F Empizo

List of Publications by Year in descending order

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39
papers

360
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888059

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citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Anisotropic complex refractive index of $\hat{\Gamma}^2$ -Ga ₂ O ₃ bulk and epilayer evaluated by terahertz time-domain spectroscopy. Applied Physics Letters, 2021, 118, . | 3.3 | 45 |
| 2 | Strong yellow emission of high-conductivity bulk ZnO single crystals irradiated with high-power gyrotron beam. Applied Physics Letters, 2017, 111, . | 3.3 | 42 |
| 3 | Hydrothermal growth of vertically aligned ZnO nanorods as potential scintillator materials for radiation detectors. Journal of Luminescence, 2018, 203, 427-435. | 3.1 | 29 |
| 4 | Spectroscopic properties of Pr ³⁺ -doped 20Al(PO ₃) ₃ -80LiF glasses as potential scintillators for neutron detection. Journal of Luminescence, 2018, 193, 13-21. | 3.1 | 21 |
| 5 | First-principles calculations of electronic and optical properties of LiCaAlF ₆ and LiSrAlF ₆ crystals as VUV to UV solid-state laser materials. Optical Materials, 2017, 65, 15-20. | 3.6 | 19 |
| 6 | Two-step fabrication of ZnO-PVP composites with tunable visible emissions. Optical Materials, 2018, 76, 317-322. | 3.6 | 18 |
| 7 | Photoluminescence properties of a single ZnO microstructure for potential scintillator applications. Optical Materials, 2014, 38, 256-260. | 3.6 | 17 |
| 8 | High pressure band gap modification of LiCaAlF ₆ . Applied Physics Letters, 2017, 110, . | 3.3 | 15 |
| 9 | Comparison of the electronic band structures of LiCaAlF ₆ and LiSrAlF ₆ ultraviolet laser host media from ab initio calculations. Japanese Journal of Applied Physics, 2015, 54, 122602. | 1.5 | 13 |
| 10 | Spectroscopic investigation of praseodymium and cerium co-doped 20Al(PO ₃) ₃ -80LiF glass for potential scintillator applications. Journal of Non-Crystalline Solids, 2019, 521, 119495. | 3.1 | 13 |
| 11 | Structural and optical characterization and scintillator application of hydrothermal-grown ZnO microrods. Optical Materials, 2017, 65, 82-87. | 3.6 | 11 |
| 12 | Significant blue-shift in photoluminescence excitation spectra of Nd ³⁺ :LaF ₃ potential laser medium at low-temperature. Optical Materials, 2015, 47, 462-464. | 3.6 | 10 |
| 13 | High spatial resolution ZnO scintillator for an in situ imaging device in EUV region. Optical Materials, 2014, 36, 2012-2015. | 3.6 | 9 |
| 14 | Temperature-dependent evaluation of Nd:LiCAF optical properties as potential vacuum ultraviolet laser material. Optical Materials, 2016, 58, 5-8. | 3.6 | 8 |
| 15 | High surface laser-induced damage threshold of SrB ₄ O ₇ single crystals under 266-nm (DUV) laser irradiation. Optics Express, 2020, 28, 29239. | 3.4 | 8 |
| 16 | Gamma-ray irradiation effects on the optical properties of bulk ZnO single crystals. Applied Physics Express, 2015, 8, 061101. | 2.4 | 7 |
| 17 | Intense and fast UV emitting ZnO microrods fabricated by low temperature aqueous chemical growth method. Journal of Luminescence, 2016, 169, 216-219. | 3.1 | 7 |
| 18 | Optical damage assessment and recovery investigation of hydrogen-ion and deuterium-ion plasma-irradiated bulk ZnO single crystals. Journal of Applied Physics, 2017, 121, . | 2.5 | 7 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Atomistic origin of compositional pulling effect in wurtzite (B, Al, In) _x Ga _{1-x} N: A first-principles study. Journal of Applied Physics, 2021, 130, 035704. | 2.5 | 7 |
| 20 | ZnO crystal as a potential damage-recoverable window material for fusion reactors. Optical Materials, 2016, 62, 646-650. | 3.6 | 6 |
| 21 | Direct band gap tunability of the LiYF ₄ crystal through high-pressure applications. Computational Materials Science, 2018, 153, 431-437. | 3.0 | 6 |
| 22 | Investigations on the electric-dipole allowed 4f ² 5d → 4f ³ broadband emission of Nd ³⁺ -doped 20Al(PO ₃) ₃ -80LiF glass for potential VUV scintillator application. Journal of Alloys and Compounds, 2021, 856, 158096. | 5.5 | 6 |
| 23 | Combination of post-growth treatments and their effects on ZnO microrods as potential UV phosphors. Optical Materials, 2018, 86, 12-17. | 3.6 | 5 |
| 24 | Total internal reflection-based side-pumping configuration for terawatt ultraviolet amplifier and laser oscillator development. Applied Physics B: Lasers and Optics, 2018, 124, 1. | 2.2 | 5 |
| 25 | Picosecond UV emissions of hydrothermal grown Fe ³⁺ -doped ZnO microrods. Journal of Crystal Growth, 2021, 574, 126332. | 1.5 | 5 |
| 26 | Blue-shifted and picosecond amplified UV emission from aqueous chemical grown ZnO microrods. Optical Materials, 2015, 48, 179-184. | 3.6 | 4 |
| 27 | Investigation of holmium-doped zirconium oxide ceramic phosphor as an ultraviolet wavelength-discriminating laser beam viewer. Optical Materials, 2018, 75, 347-349. | 3.6 | 4 |
| 28 | Density functional theory-based investigation of hydrogen adsorption on zinc oxide (ZnO) surface: Revisited. Surface Science, 2021, 703, 121726. | 1.9 | 3 |
| 29 | Low-threshold amplified UV emission of optically pumped ZnO-polymer nanocomposites. Journal of Crystal Growth, 2021, 573, 126328. | 1.5 | 3 |
| 30 | Spray Pyrolysis Deposition of Al-Doped ZnO Thin Films for Potential Picosecond Extreme Ultraviolet Scintillator Applications. Physica Status Solidi (B): Basic Research, 2020, 257, 1900481. | 1.5 | 2 |
| 31 | Nanosecond alpha-ray response and gamma-ray radiation resistance of a hydrothermal-grown bulk ZnO single crystal. Journal of Crystal Growth, 2021, 570, 126240. | 1.5 | 2 |
| 32 | Optical transmittance investigation of 1-keV ion-irradiated sapphire crystals as potential VUV to NIR window materials of fusion reactors. AIP Advances, 2016, 6, . | 1.3 | 1 |
| 33 | Scintillation and Optical Properties of Ce-Doped Fluoride Glass Samples with Different Ce Concentrations. Sensors and Materials, 2015, , 1. | 0.5 | 1 |
| 34 | Current Status and Enhancement of Collaborative Research in the World: A Case Study of Osaka University. Journal of Data and Information Science, 2020, 5, 75-85. | 1.1 | 1 |
| 35 | Tritium-doping enhancement of polystyrene by ultraviolet laser and hydrogen plasma irradiation for laser fusion experiments. Fusion Engineering and Design, 2016, 112, 269-273. | 1.9 | 0 |
| 36 | Optical characterization of Nd ³⁺ :LiCaAlF ₆ in the vacuum ultraviolet region at low temperature. , 2017, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Interplay of Zn(OAc) ₂ concentration, morphology, and emission in hydrothermal-grown ZnO nanostructures. Journal of Crystal Growth, 2021, , 126339. | 1.5 | 0 |
| 38 | Optimized Ce:LiCAF amplifier pumping configurations. , 2018, , . | | 0 |
| 39 | Electrical properties of β -Ga ₂ O ₃ homoepitaxial layer measured by terahertz time-domain spectroscopy. , 2020, , . | | 0 |