

Roberto Lorenzi

List of Publications by Year in descending order

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68
papers

979
citations

471509

17
h-index

477307

29
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68
all docs

68
docs citations

68
times ranked

1477
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Luminescence mechanisms of defective ZnO nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16237-16244. | 2.8 | 89 |
| 2 | Spectro-electrochemical Probing of Intrinsic and Extrinsic Processes in Exciton Recombination in V^{2+} Nanocrystals. <i>Nano Letters</i> , 2017, 17, 4508-4517. | 9.1 | 60 |
| 3 | Fully inorganic oxide-in-oxide ultraviolet nanocrystal light emitting devices. <i>Nature Communications</i> , 2012, 3, 690. | 12.8 | 56 |
| 4 | Size-Dependent Luminescence in HfO_2 Nanocrystals: Toward White Emission from Intrinsic Surface Defects. <i>Chemistry of Materials</i> , 2016, 28, 3245-3253. | 6.7 | 54 |
| 5 | Permanent excimer superstructures by supramolecular networking of metal quantum clusters. <i>Science</i> , 2016, 353, 571-575. | 12.6 | 54 |
| 6 | Native amorphous nanoheterogeneity in gallium germanosilicates as a tool for driving Ga_2O_3 nanocrystal formation in glass for optical devices. <i>Nanoscale</i> , 2013, 5, 299-306. | 5.6 | 41 |
| 7 | Nickel-assisted growth and selective doping of spinel-like gallium oxide nanocrystals in germano-silicate glasses for infrared broadband light emission. <i>Nanotechnology</i> , 2012, 23, 015708. | 2.6 | 39 |
| 8 | In-line absorption sensor based on coiled optical microfiber. <i>Applied Physics Letters</i> , 2011, 98, . | 3.3 | 38 |
| 9 | Light-emitting Ga-oxide nanocrystals in glass: a new paradigm for low-cost and robust UV-to-visible solar-blind converters and UV emitters. <i>Nanoscale</i> , 2014, 6, 1763-1774. | 5.6 | 33 |
| 10 | Thermochromic Latent Pigment-Based Time-Temperature Indicators for Perishable Goods. <i>Advanced Optical Materials</i> , 2015, 3, 1164-1168. | 7.3 | 33 |
| 11 | Non-aqueous sol-gel synthesis of hybrid rare-earth-doped $\text{Er}^{3+}\text{-Ga}_2\text{O}_3$ nanoparticles with multiple organic-inorganic-ionic light-emission features. <i>Journal of Materials Chemistry C</i> , 2015, 3, 41-45. | 5.5 | 27 |
| 12 | Efficient 1.53 μm erbium light emission in heavily Er-doped titania-modified aluminium tellurite glasses. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 2150-2156. | 3.1 | 26 |
| 13 | Waste Face Surgical Mask Transformation into Crude Oil and Nanostructured Electrocatalysts for Fuel Cells and Electrolyzers. <i>ChemSusChem</i> , 2022, 15, . | 6.8 | 26 |
| 14 | Quantized Doping of Individual Colloidal Nanocrystals Using Size-Focused Metal Quantum Clusters. <i>ACS Nano</i> , 2017, 11, 6233-6242. | 14.6 | 21 |
| 15 | Valorization of the inedible pistachio shells into nanoscale transition metal and nitrogen codoped carbon-based electrocatalysts for hydrogen evolution reaction and oxygen reduction reaction. <i>Materials for Renewable and Sustainable Energy</i> , 2022, 11, 131-141. | 3.6 | 20 |
| 16 | Surface Characterization of TiO_2 Polymorphic Nanocrystals through ^1H -TD-NMR. <i>Langmuir</i> , 2018, 34, 9460-9469. | 3.5 | 19 |
| 17 | A physico-chemical investigation of highly concentrated potassium acetate solutions towards applications in electrochemistry. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 1139-1145. | 2.8 | 19 |
| 18 | High-energy shift of the Urbach ultraviolet absorption from attenuated dynamical disorder in fluorine modified sol-gel silica. <i>Applied Physics Letters</i> , 2007, 91, . | 3.3 | 17 |

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|----|---|-----|-----------|
| 19 | Confined diffusion of erbium excitations in SnO ₂ nanoparticles embedded in silica: A time-resolved infrared luminescence study. <i>Physical Review B</i> , 2009, 79, . | 3.2 | 17 |
| 20 | Electric field induced structural modification and second order optical nonlinearity in potassium niobium silicate glass. <i>Journal of Non-Crystalline Solids</i> , 2009, 355, 2578-2582. | 3.1 | 16 |
| 21 | Broadband infrared light-emitting patterns in optical glass by laser-induced nanostructuring of NiO-doped alkali-gallium germanosilicates. <i>Optics Letters</i> , 2013, 38, 492. | 3.3 | 16 |
| 22 | Spatially selective Au nanoparticle growth in laser-quality glass controlled by UV-induced phosphate-chain cross-linkage. <i>Nanotechnology</i> , 2013, 24, 225302. | 2.6 | 16 |
| 23 | Pre-crystallization heat treatment and infrared luminescence enhancement in Ni ²⁺ -doped transparent glass-ceramics. <i>Journal of Non-Crystalline Solids</i> , 2019, 515, 42-49. | 3.1 | 15 |
| 24 | Sol-gel Strategy for Self-Induced Fluorination and Dehydration of Silica with Extended Vacuum Ultraviolet Transmittance and Radiation Hardness. <i>Chemistry of Materials</i> , 2012, 24, 677-681. | 6.7 | 14 |
| 25 | Microfluorescence Analysis of Nanostructuring Inhomogeneity in Optical Fibers with Embedded Gallium Oxide Nanocrystals. <i>Microscopy and Microanalysis</i> , 2012, 18, 259-265. | 0.4 | 13 |
| 26 | Competition between green self-trapped-exciton and red non-bridging-oxygen emissions in SiO ₂ under interband excitation. <i>Communications Physics</i> , 2018, 1, . | 5.3 | 13 |
| 27 | Diffusion-driven and size-dependent phase changes of gallium oxide nanocrystals in a glassy host. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 5141-5150. | 2.8 | 11 |
| 28 | A new double layer super-capacitor made by free-standing activated carbon membranes and highly concentrated potassium acetate solutions. <i>Electrochimica Acta</i> , 2020, 364, 137323. | 5.2 | 11 |
| 29 | Physicochemical properties of Pyr13TFSI-NaTFSI electrolyte for sodium batteries. <i>Electrochimica Acta</i> , 2022, 412, 140123. | 5.2 | 11 |
| 30 | Mn sites in cordierite - electron paramagnetic resonance, luminescence, and optical absorption analysis. <i>European Journal of Mineralogy</i> , 2012, 24, 447-456. | 1.3 | 10 |
| 31 | Structural rearrangement at the yttrium-depleted surface of HCl-processed yttrium aluminosilicate glass for 90Y-microsphere brachytherapy. <i>Materials Chemistry and Physics</i> , 2012, 133, 24-28. | 4.0 | 10 |
| 32 | Infrared spectroscopic properties of low-phonon lanthanide-doped KLuS ₂ crystals. <i>Journal of Luminescence</i> , 2019, 211, 100-107. | 3.1 | 10 |
| 33 | Crystallization of nanoheterogeneities in Ga-containing germanosilicate glass: Dielectric and refractive response changes. <i>Acta Materialia</i> , 2014, 70, 19-29. | 7.9 | 9 |
| 34 | FeTiO ₃ as Anode Material for Sodium-Ion Batteries: from Morphology Control to Decomposition. <i>ChemElectroChem</i> , 2020, 7, 1713-1722. | 3.4 | 9 |
| 35 | Role of sol-gel networking and fluorine doping in the silica Urbach energy. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 1838-1841. | 3.1 | 8 |
| 36 | Donor-Acceptor Control in Grown Glass Gallium Oxide Nanocrystals by Crystallization-driven Heterovalent Doping. <i>ChemPhysChem</i> , 2017, 18, 662-669. | 2.1 | 7 |

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|----|---|------|-----------|
| 37 | Radio- and photoluminescence properties of Ce/Tb co-doped glasses with huntite-like composition. <i>Optical Materials</i> , 2018, 78, 247-252. | 3.6 | 7 |
| 38 | Tunable Dielectric Function in Electric-Responsive Glass with Tree-Like Percolating Pathways of Chargeable Conductive Nanoparticles. <i>Advanced Functional Materials</i> , 2010, 20, 3511-3518. | 14.9 | 6 |
| 39 | Defect-assisted photocatalytic activity of glass-embedded gallium oxide nanocrystals. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 2830-2838. | 9.4 | 6 |
| 40 | Sol-gel synthesis of Ge nanophases in silica. <i>Solid State Communications</i> , 2007, 144, 429-432. | 1.9 | 5 |
| 41 | Study of the absorption edge of SnO ₂ nanoparticles embedded in silica films. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 1888-1891. | 3.1 | 5 |
| 42 | Nucleation-controlled vacancy formation in light-emitting wide-band-gap oxide nanocrystals in glass. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4380-4387. | 5.5 | 5 |
| 43 | Disclosing mineralogical phases in medioeval iron nails by non-destructive neutron techniques. <i>Archaeological and Anthropological Sciences</i> , 2017, 9, 515-522. | 1.8 | 5 |
| 44 | Augmented excitation cross section of gadolinium ions in nanostructured glasses. <i>Optics Letters</i> , 2017, 42, 2419. | 3.3 | 5 |
| 45 | Promising Electrocatalytic Water and Methanol Oxidation Reaction Activity by Nickel Doped Hematite/Surface Oxidized Carbon Nanotubes Composite Structures. <i>ChemPlusChem</i> , 2022, 87, e202200036. | 2.8 | 5 |
| 46 | Updating of the interpretation of the optical absorption and emission of Verneuil synthetic and natural metamorphic blue sapphire: the role of V ²⁺ , V ³⁺ and Cr ²⁺ . <i>IOP Conference Series: Materials Science and Engineering</i> , 2010, 15, 012087. | 0.6 | 4 |
| 47 | Luminescence study of transition metal ions in natural magmatic and metamorphic yellow sapphires. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010, 15, 012086. | 0.6 | 4 |
| 48 | Local crystallization of glasses aided by copper vapor laser. <i>Glass and Ceramics (English Translation)</i> 107(10) 1075-1078. | 0.6 | 4 |
| 49 | Influence of the fiber drawing process on mechanical and vibrational properties of sol-gel silica glass. <i>Journal of Non-Crystalline Solids</i> , 2021, 555, 120534. | 3.1 | 4 |
| 50 | Tunable Dielectric Function in Electric-Responsive Glass with Tree-Like Percolating Pathways of Chargeable Conductive Nanoparticles. <i>Advanced Functional Materials</i> , 2010, 20, 3510-3510. | 14.9 | 3 |
| 51 | The role of networking in the optical anisotropy of hot-extruded calcium phosphate glass. <i>Materials Chemistry and Physics</i> , 2011, 128, 12-15. | 4.0 | 3 |
| 52 | Lenticular Ga-oxide nanostructures in thin amorphous germanosilicate layers - Size control and dimensional constraints. <i>Materials and Design</i> , 2021, 204, 109667. | 7.0 | 3 |
| 53 | A multidisciplinary non-destructive study of historical pipe organ fragments. <i>Materials Characterization</i> , 2019, 148, 317-322. | 4.4 | 3 |
| 54 | Raman study of fluorine effects on silica with embedded SnO ₂ nanoparticles. <i>Journal of Non-Crystalline Solids</i> , 2009, 355, 1149-1151. | 3.1 | 2 |

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|----|---|------|-----------|
| 55 | Broadband luminescence in nanostructured glasses. Glass and Ceramics (English Translation of) Tj ETQq1 1 0.784314 rgBT /Overlock 10 | 0.6 | 2 |
| 56 | Responsive charge transport in wide-band-gap oxide films of nanostructured amorphous alkali-gallium-germanosilicate. Journal of Materials Chemistry C, 2019, 7, 7768-7778. | 5.5 | 2 |
| 57 | Red emission doublets in diamond from vacancies interacting with interstitial carbon aggregates in tunneling configurations. Carbon, 2017, 120, 294-303. | 10.3 | 2 |
| 58 | Nanostructured SnO ₂ -SiO ₂ glassceramic thin films as electroluminescent material: an impedance spectroscopy analysis. Proceedings of SPIE, 2007, , . | 0.8 | 1 |
| 59 | Optical activity of Sn-variants of oxygen deficient centers in fluorine-modified silica. Journal of Non-Crystalline Solids, 2009, 355, 1024-1027. | 3.1 | 1 |
| 60 | Visible-light excited red-emitting vacancies at carbon interstitials as indicators of irradiated and annealed Type Ia diamonds. Diamond and Related Materials, 2018, 90, 188-193. | 3.9 | 1 |
| 61 | Photoluminescence of Gallate Glass-Ceramics: Al ₂ O ₃ Influence. Glass and Ceramics (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10 | 0.6 | 1 |
| 62 | Historical glass mosaic tesserae: a multi-analytical approach for their characterization. European Physical Journal Plus, 2021, 136, 1. | 2.6 | 1 |
| 63 | A Multi-Methodological Investigation of Natural and Synthetic Red Beryl Gemstones. Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Over | 2.0 | 1 |
| 64 | Second harmonic generation from bulk glassceramics containing laser-poled dielectric nanocrystals. , 2007, , . | | 0 |
| 65 | Ge nanoparticles growth in Ge-doped sol-gel silica by e-beam exposure. , 2008, , . | | 0 |
| 66 | Optical microfiber passive devices and sensors. Proceedings of SPIE, 2011, , . | 0.8 | 0 |
| 67 | Food Safety: Thermochromic Latent-Pigment-Based Time-Temperature Indicators for Perishable Goods (Advanced Optical Materials 9/2015). Advanced Optical Materials, 2015, 3, 1163-1163. | 7.3 | 0 |
| 68 | Optical microfiber devices and sensors. , 2011, , . | | 0 |