Luis Armando Diaz-Torres

List of Publications by Year
in descending order

125 papers	6,671 citations	126708 33 h-index	64668 79 g-index
126 all docs	126 docs citations	126 times ranked	8850 citing authors

#	Article	IF	Citations
1	Nano based drug delivery systems: recent developments and future prospects. Journal of Nanobiotechnology, 2018, 16, 71.	4.2	3,689
2	Concentration effect of Er3+ ion on the spectroscopic properties of Er3+ and Yb3+/Er3+ co-doped phosphate glasses. Optical Materials, 2006, 28, 560-568.	1.7	119
3	Luminescence and visible upconversion in nanocrystalline ZrO2:Er3+. Applied Physics Letters, 2003, 83, 4903-4905.	1.5	105
4	Visible light emission under UV and IR excitation of rare earth doped ZrO2 nanophosphor. Optical Materials, 2005, 27, 1320-1325.	1.7	105
5	Luminescence Concentration Quenching Mechanism in Gd₂O₃:Eu³⁺.. Journal of Physical Chemistry A, 2014, 118, 1390-1396.	1.1	99
6	Luminescent properties and energy transfer in ZrO2:Sm3+ nanocrystals. Journal of Applied Physics, 2003, 94, 3509-3515.	1.1	95
7	Efficient photoluminescence of Dy3+ at low concentrations in nanocrystalline ZrO2. Journal of Solid State Chemistry, 2008, 181, 75-80.	1.4	85
8	Biodistribution and long-term fate of silver nanoparticles functionalized with bovine serum albumin in rats. Metallomics, 2010, 2, 204-210.	1.0	74
9	Role of Yb3+ and Er3+ concentration on the tunability of green-yellow-red upconversion emission of codoped ZrO2:Yb3+â€“Er3+ nanocrystals. Journal of Applied Physics, 2010, 108, .	1.1	73
10	Synthesis, characterization and luminescence properties of ZrO2:Yb3+â€“Er3+ nanophosphor. Optical Materials, 2005, 27, 1295-1300.	1.7	69
11	Chalcogenide-Bound Erbium Complexes:â€‰ Paradigm Molecules for Infrared Fluorescence Emission. Chemistry of Materials, 2005, 17, 5130-5135.	3.2	63
12	Rapid synthesis of ZnO nano-corncobs from Nital solution and its application in the photodegradation of methyl orange. Journal of Photochemistry and Photobiology A: Chemistry, 2015, 298, 49-54.	2.0	59
13	Low temperature synthesis and structural characterization of nanocrystalline YAG prepared by a modified solâ€“gel method. Optical Materials, 2005, 27, 1793-1799.	1.7	58
14	Enhanced cooperative absorption and upconversion in Yb3+doped YAG nanophosphors. Optical Materials, 2005, 27, 1305-1310.	1.7	55
15	Evidence of non-radiative energy transfer from the host to the active ions in monoclinic ZrO2:Sm3+. Journal Physics D: Applied Physics, 2001, 34, L83-L86.	1.3	51
16	Monoclinic ZrO2 as a broad spectral response thermoluminescence UV dosemeter. Radiation Measurements, 2003, 37, 187-190.	0.7	51
17	Gas-phase photocatalytic decomposition of ethylbenzene over perlite granules coated with indium doped TiO2. Chemical Engineering Journal, 2013, 224, 106-113.	6.6	51
18	A review of phosphorescent and fluorescent phosphors for fingerprint detection. Ceramics International, 2021, 47, 10-41.	2.3	51

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19	Preparation, photo- and thermo-luminescence characterization of Tb3+ and Ce3+ doped nanocrystalline Y3Al5O12 exposed to UV-irradiation. Optical Materials, 2004, 25, 285-293.	1.7	49
20	Blue and red emission in wide band gap BaZrO3:Yb3+,Tm3+. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 174, 169-173.	1.7	48
21	Color tunability of the upconversion emission in Erâ€“Yb doped the wide band gap nanophosphors ZrO2 and Y2O3. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 174, 177-181.	1.7	47
22	Energy back transfer, migration and energy transfer (Yb-to-Er and Er-to-Yb) processes in Yb,Er:YAG. Journal of Luminescence, 2003, 102-103, 694-698.	1.5	43
23	Visible and near-infrared light-driven photocatalytic activity of erbium-doped CaTiO3 system. Journal of Molecular Catalysis A, 2015, 410, 19-25.	4.8	43
24	Concentration enhanced red upconversion in nanocrystalline ZrO2Â:ÂEr under IR excitation. Journal Physics D: Applied Physics, 2004, 37, 2489-2495.	1.3	41
25	Strong broad green UV-excited photoluminescence in rare earth (RE=Ce, Eu, Dy, Er, Yb) doped barium zirconate. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1388-1392.	1.7	40
26	Near-Infrared Optical Characteristics of Chalcogenide-Bound Nd3+Molecules and Clusters. Chemistry of Materials, 2007, 19, 2937-2946.	3.2	39
27	Efficient photocatalytic activity of MSnO3 (M: Ca, Ba, Sr) stannates for photoreduction of 4-nitrophenol and hydrogen production under UV light irradiation. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 371, 365-373.	2.0	39
28	Luminescence and thermoluminescence induced by Gamma and UV-irradiation in pure and rare earth doped zirconium oxide. Optical Materials, 2002, 19, 195-199.	1.7	37
29	Nanocrystalline tetragonal zirconium oxide stabilization at low temperatures by using rare earth ions: Sm3+ and Tb3+. Optical Materials, 2002, 20, 263-271.	1.7	37
30	Spectroscopic characterization of Nd3+ ions in barium fluoroborophosphate glasses. Optical Materials, 2001, 18, 321-329.	1.7	36
31	Thermoluminescence characterization of Tb3+ and Ce3+ doped nanocrystalline Y3Al5O12 exposed to X- and Î²-ray irradiation. Optical Materials, 2004, 27, 293-299.	1.7	36
32	Structural study, photoluminescence, and photocatalytic activity of semiconducting BaZrO3:Bi nanocrystals. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1382-1387.	1.7	35
33	Controlling the white phosphorescence ZnGa2O4 phosphors by surface defects. Ceramics International, 2019, 45, 4972-4979.	2.3	35
34	Luminescence and energy transfer properties of Eu3+ and Gd3+ in ZrO2. Journal of Luminescence, 2014, 146, 398-403.	1.5	33
35	Photocatalytic activity of MAl2O4 (M = Mg, Sr and Ba) for hydrogen production. Fuel, 2017, 188, 197-204.	3.4	33
36	Thermoluminescence and infrared stimulated luminescence in long persistent monoclinic SrAl2O4:Eu2+,Dy3+ and SrAl2O4:Eu2+,Nd3+ phosphors. Optical Materials, 2019, 92, 46-52.	1.7	33

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37	Persistent luminescence nanothermometers. Applied Physics Letters, 2017, 111, .	1.5	32
38	Effects of energy back transfer on the luminescence of Yb and Er ions in YAG. Applied Physics Letters, 2000, 76, 2032-2034.	1.5	31
39	Photocatalytic Hydrogen Evolution by Flexible Graphene Composites Decorated with Ni(OH)₂ Nanoparticles. Journal of Physical Chemistry C, 2018, 122, 1477-1485.	1.5	30
40	Heparin-Based Nanoparticles: An Overview of Their Applications. Journal of Nanomaterials, 2018, 2018, 1-8.	1.5	30
41	Green and red upconverted emission of hydrothermal synthesized Y2O3: Er3+â€"Yb3+ nanophosphors using different solvent ratio conditions. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 174, 164-168.	1.7	29
42	Blue-green upconversion emission in ZrO2:Yb3+ nanocrystals. Journal of Applied Physics, 2008, 104, .	1.1	27
43	Heparin Assisted Photochemical Synthesis of Gold Nanoparticles and Their Performance as SERS Substrates. International Journal of Molecular Sciences, 2014, 15, 19239-19252.	1.8	27
44	Comparative study of the spectroscopic properties of Yb3+/Er3+ codoped tellurite glasses modified with R2O (R=Li, Na and K). Journal of Luminescence, 2012, 132, 391-397.	1.5	26
45	Effect of the CTAB concentration on the upconversion emission of ZrO2:Er3+ nanocrystals. Optical Materials, 2006, 29, 31-37.	1.7	24
46	Comparison Between Isothermal Cold and Melt Crystallization of Polylactide/Clay Nanocomposites. Journal of Nanoscience and Nanotechnology, 2008, 8, 1658-1668.	0.9	24
47	Crystalline order of silverâ€"gold nanocatalysts with hollow-core and alloyed-shell. Catalysis Today, 2009, 147, 211-216.	2.2	24
48	Effect of TEA on the blue emission of ZnO quantum dots with high quantum yield. Optical Materials Express, 2015, 5, 1109.	1.6	24
49	Enhancing the Up-Conversion Emission of ZrO₂:Er³⁺ Nanocrystals Prepared by a Micelle Process. Journal of Physical Chemistry C, 2007, 111, 17110-17117.	1.5	22
50	Thermoluminescence properties of undoped and Tb3+ and Ce3+ doped YAG nanophosphor under UV-, X- and Î²-ray irradiation. Nuclear Instruments & Methods in Physics Research B, 2007, 255, 357-364.	0.6	22
51	Structural and photoluminescence study of Erâ€"Yb codoped nanocrystalline ZrO2â€"B2O3 solid solution. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 1423-1429.	1.7	22
52	Visible upconversion emission and non-radiative direct Yb3+ to Er3+ energy transfer processes in nanocrystalline ZrO2:Yb3+,Er3+. Optics and Lasers in Engineering, 2011, 49, 703-708.	2.0	20
53	Photoluminescent and photocatalytic properties of bismuth doped strontium aluminates blended with titanium dioxide. Materials Science in Semiconductor Processing, 2015, 37, 105-111.	1.9	20
54	Optimal co-doping concentrations and dynamics of energy transfer processes for Tm3+-Tb3+and Tm3+-Eu3+in LiYF4crystal hosts. Journal Physics D: Applied Physics, 2001, 34, 3203-3208.	1.3	19

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55	Enhancing the Photocatalytic Activity of Sr₄Al₁₄O₂₅: Eu²⁺, Dy³⁺ Persistent Phosphors by Codoping with Bi³⁺ Ions. Photochemistry and Photobiology, 2016, 92, 231-237.	1.3	19
56	Crystalline and narrow band gap semiconductor BaZrO3: Biâ€“Si synthesized by microwaveâ€“hydrothermal synthesis. Catalysis Today, 2015, 250, 95-101.	2.2	18
57	White light generation from YAG/YAM:Ce3+, Pr3+, Cr3+ nanophosphors mixed with a blue dye under 340nm excitation. Journal of Luminescence, 2014, 154, 185-192.	1.5	17
58	Enhancing the white light emission of SrAl2O4:Ce3+ phosphors by codoping with Li+ ions. Ceramics International, 2016, 42, 16235-16241.	2.3	17
59	Thermally and optically stimulated luminescence in long persistent orthorhombic strontium aluminates doped with Eu, Dy and Eu, Nd. Optical Materials, 2017, 67, 91-97.	1.7	17
60	Annealing effect on the luminescence properties of BaZrO3:Yb3+ microcrystals. Journal of Applied Physics, 2008, 104, .	1.1	16
61	Efficient Near Infrared to Visible and Nearâ€Infrared Upconversion Emissions in Transparent (Tm³⁺, Er³⁺)â€Î±â€Sialon Ceramics. Journal of the American Ceramic Society, 2017, 100, 224-234.	1.9	16
62	Strong Visible Cooperative Up-Conversion Emission in ZrO₂:Yb³⁺ Nanocrystals. Journal of Nanoscience and Nanotechnology, 2005, 5, 1480-1486.	0.9	15
63	Photoluminescence characterization of porous YAG: Yb3+â€“Er3+ nanoparticles. Journal of Luminescence, 2014, 153, 21-28.	1.5	15
64	Efficient hydrogen generation by ZnAl2O4 nanoparticles embedded on a flexible graphene composite. Renewable Energy, 2020, 152, 634-643.	4.3	15
65	UV photochemical synthesis of heparin-coated gold nanoparticles. Gold Bulletin, 2014, 47, 21-31.	1.1	14
66	Exact solution to the general non-radiative energy transfer master equations in crystalline materials. Journal of Luminescence, 2000, 91, 233-241.	1.5	13
67	Green EuAlO3:Eu2+ nanophosphor for applications in WLEDs. Optical Materials, 2014, 37, 520-524.	1.7	13
68	Long-lasting green, yellow, and red phosphorescence of carbon dots embedded on ZnAl₂O₄ nanoparticles synthesized by a combustion method. Journal Physics D: Applied Physics, 2018, 51, 415104.	1.3	13
69	Evolution of partially polarized light through non-depolarizing anisotropic media. Optics Communications, 2000, 173, 57-71.	1.0	12
70	Tunable white light from photo- and electroluminescence of ZnO nanoparticles. Journal Physics D: Applied Physics, 2014, 47, 015104.	1.3	12
71	Analysis of experimental Nd3+ emission transients with fast sub-microsecond decay component and a subsequent non-exponential long-term decay with Monte-Carlo simulations. Journal of Luminescence, 1998, 78, 69-86.	1.5	11
72	Evidence of energy transfer among Nd ions in Nd:YAG driven by a mixture of exchange and multipolar interactions. Optical Materials, 1998, 10, 319-326.	1.7	11

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73	Synthesis and photoluminescence of Y2O3:Yb3+â€“Er3+ nanofibers. Microelectronics Journal, 2008, 39, 551-555.	1.1	11
74	Structural and Chemical Characterization of Yb₂O₃-ZrO₂ System by HAADF-STEM and HRTEM. Microscopy and Microanalysis, 2009, 15, 46-53.	0.2	11
75	Tuning from green to red the upconversion emission of Y2O3:Er3+â€“Yb3+ nanophosphors. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	11
76	Effect of Yb3+ concentration on the green-yellow upconversion emission of SrGe4O9:Er3+ phosphors. Ceramics International, 2019, 45, 16911-16917.	2.3	11
77	Antifungal and Cytotoxic Evaluation of Photochemically Synthesized Heparin-Coated Gold and Silver Nanoparticles. Molecules, 2020, 25, 2849.	1.7	11
78	Free volume effects on the fluorescence characteristics of solâ€“gel glasses doped with quinine sulfate. Optical Materials, 1999, 13, 327-332.	1.7	10
79	Effect of PMMA impregnation on the fluorescence quantum yield of solâ€“gel glasses doped with quinine sulfate. Optical Materials, 2001, 17, 415-418.	1.7	10
80	Nanoparticle thin films of nanocrystalline YAG by pulsed laser deposition. Optical Materials, 2005, 27, 1217-1220.	1.7	10
81	Synthesis and Characterization of Amorphous SiO₂ Nanowires Derived from a Polymeric Precursor. Journal of Nanoscience and Nanotechnology, 2008, 8, 997-1002.	0.9	10
82	Biomolecule Assisted Hydrothermal Synthesis of Chainlike Network of Silver Sulfide Nanostructures. Journal of Nanoscience and Nanotechnology, 2008, 8, 986-992.	0.9	10
83	Highly efficient hydrogen generation of BiI3 nanoplates decorated with Ag nanoparticles. International Journal of Hydrogen Energy, 2018, 43, 15962-15974.	3.8	10
84	Effect of thermal treatment on luminescence properties of long persistent CaAl2O4:Eu2+,Dy3+ synthesized by combustion method. Optical Materials, 2020, 101, 109763.	1.7	10
85	Neodymium-to-erbium nonradiative energy transfer and fast initial fluorescence decay of the ^4F_3/2 state of neodymium in garnet crystals. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 2731.	0.9	9
86	Optically stimulated luminescence properties of nanocrystalline Y3Al5O12 phosphor exposed to Î² radiation. Optical Materials, 2005, 27, 1245-1249.	1.7	9
87	Effect of Eu 3+ concentration on the photocatalytic activity of LaSr 2 AlO 5 powders. Inorganic Chemistry Communication, 2015, 59, 63-67.	1.8	9
88	Cooperative Pair Driven Quenching of Yb³⁺ Emission in Nanocrystalline ZrO₂:Yb³⁺. Journal of Nano Research, 0, 5, 121-134.	0.8	8
89	Photocatalytic Activity and Optical Properties of Blue Persistent Phosphors under UV and Solar Irradiation. International Journal of Photoenergy, 2016, 2016, 1-8.	1.4	8
90	Efficient solar removal of acetaminophen contaminant from water using flexible graphene composites functionalized with Ni@TiO2:W nanoparticles. Journal of Environmental Management, 2021, 290, 112665.	3.8	8

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91	The non-radiative energy transfer in high acceptor concentration codoped Nd,Ho:YAG and Nd,Er:YAG. Optics Communications, 1996, 129, 273-283.	1.0	7
92	Energy Back-Transfer and other Nonradiative Energy-Transfer Processes in Yb[sup 3+], Er[sup 3+]:Y[sub 3]Al[sub 5]O[sub 12]. Journal of the Electrochemical Society, 2002, 149, J31.	1.3	7
93	BaZrO₃:YB NANOPHOSPHOR FOR EFFICIENT UP-CONVERSION LIGHT EMISSION. Progress in Electromagnetics Research Letters, 2009, 11, 139-148.	0.4	7
94	Effect of solvent on the up- and downconversion emissions of Y_2O_3:Yb^3+âˆ’Er^3+ nanofibers synthesized by a hydrothermal method. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 649.	0.9	7
95	Effect of Crystal Size and Ag Concentration on the Thermoluminescent Response of Pure and Ag-Doped LiF Cubes. Nano, 2016, 11, 1650041.	0.5	7
96	Thermoluminescent response and kinetic parameters of Eu3+-doped LiF crystals exposed to X-rays. Journal of Luminescence, 2017, 182, 160-165.	1.5	7
97	Effect of the Er3+ Co-dopant on the Green Upconversion Emission of LaSr2AlO5:Yb3+ Phosphors. Journal of Electronic Materials, 2018, 47, 6567-6574.	1.0	7
98	Enhancement of Visible Upconversion Emission in Y2O3:Er3+-Yb3+by Addition of Thiourea and LiOH in the Phosphor Synthesis. Journal of Nanomaterials, 2015, 2015, 1-8.	1.5	6
99	Photocatalytic Activity of LaSr₂AlO₅:Eu Ceramic Powders. Photochemistry and Photobiology, 2015, 91, 505-509.	1.3	6
100	Effect of Pt loading on the hydrogen production of CNT/Pt composites functionalized with carboxylic groups. International Journal of Hydrogen Energy, 2020, 45, 27012-27025.	3.8	6
101	Direct energy transfer and migration among Cr ions in the Cr, Nd:GSGG luminescent system. Optical Materials, 2001, 16, 221-226.	1.7	5
102	Temperature effect in the crystallite size and the photoluminescence of nanocrystalline ZrO 2 :Sm3+phosphor. , 2004, , .		5
103	White light emission from a blue polymer light emitting diode combined with <scp>YAG</scp>:<scp>C</scp>e³⁺ nanoparticles. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 651-655.	0.8	5
104	Anisotropic media with orthogonal eigenpolarizations. Journal of Optics, 2002, 4, 419-423.	1.5	4
105	Concentration and crystallite size dependence of the photoluminescence in YAG:Ce3+nanophosphor. , 2004, , .		4
106	Green upconversion emission dependence on size and surface residual contaminants in nanocrystalline ZrO2:Er3+. Journal of Sol-Gel Science and Technology, 2012, 63, 473-480.	1.1	4
107	Effect of Synthesis Temperature on Morphological and Luminescent Properties of Lithium Fluoride Crystals. Journal of Nanoscience and Nanotechnology, 2017, 17, 5612-5616.	0.9	4
108	Photoluminescence and thermoluminescence of YAG:Ce3+,Tb3+nanocrystalline under UV-, X- and Î²-irradiation. , 2003, , .		3

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109	Photoluminescence of bound rare earth nanoscale complexes. Optical Materials, 2006, 29, 12-18.	1.7	3
110	Dynamics of the Green and Red Upconversion Emissions inYb3+-Er3+-CodopedY2O3Nanorods. Journal of Nanomaterials, 2010, 2010, 1-8.	1.5	3
111	Role of the Hydrothermal Synthesis Conditions on the Structure and Morphology of Co-Doped Y₂O₃:Er³⁺-Yb³⁺ Nanostructured Materials. Journal of Nano Research, 2010, 9, 109-116.	0.8	3
112	NaOH-controlled upconversion of nanocrystalline BaZrO<SUB align="right">3:Er,Yb phosphor. International Journal of Nanotechnology, 2013, 10, 1055.	0.1	2
113	Fingerprint detection on low contrast surfaces using phosphorescent nanomaterials. AIP Conference Proceedings, 2019, , .	0.3	2
114	Effect of the urea concentration on the luminescence and photocatalytic properties of Sr2CeO4 powders synthesized by a combustion method. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 410, 113139.	2.0	2
115	X-ray diffraction evidence of the single solid solution character of the mixed [TmxY1âˆ'x]3Al5O12 crystalline phosphor. Optical Materials, 2001, 18, 225-230.	1.7	1
116	Second-harmonic imaging of ZnO nanoparticles. , 2007, , .		1
117	Structural and photoluminescence characterization of nanocrystalline YAG: Er3+prepared with the addition of PVA and UREA. , 2007, , .		1
118	Effect of ammonia on luminescent properties of YAG:Ce3+,Pr3+nanophosphors. , 2010, , .		1
119	UVA mediated synthesis of gold nanoparticles in pharmaceutical-grade heparin sodium solutions. , 2013, , .		1
120	Photochemically synthesized heparin-based silver nanoparticles: an antimicrobial activity study. , 2017, , .		1
121	Photorefractive phase conjugation of pulses: A numerical and analytical comparison. Journal of Soviet Laser Research, 1992, 13, 261-268.	0.2	0
122	<title>Nonradiative energy transfer process in the system Sm<formula>^{<roman>3</roman>}</formula>+: ZrO<formula><inf><roman>2</roman></inf></formula> prepared by sol-gel technique</title>., 2001, , .		0
123	Fluorescence characterization of the ternary system TMQ-PBDBD365-POPOP-dye-doped polystyrene optical fiber under gamma and UV irradiation. , 2001, , .		0
124	<title>Spectroscopic characterization of Nd<formula>^{<roman>3</roman>}</formula>+ doped barium fluoroborophosphate and fluorosulphatephosphate glasses</title>., 2001, , .		0
125	Facile synthesis and optical applications of ceramic nanophosphors. , 2008, , .		0