Anna Vedda

List of Publications by Year
in descending order

120 papers	4,339 citations	117625 34 h-index	123424 61 g-index
122 all docs	122 docs citations	122 times ranked	2923 citing authors

#	Article	IF	Citations
1	Stokes Shift Engineered Mn:CdZnS/ZnS Nanocrystals as Reabsorptionâ€Free Nanoscintillators in High Loading Polymer Composites. Advanced Optical Materials, 2022, 10, .	7.3	5
2	Highly luminescent scintillating hetero-ligand MOF nanocrystals with engineered Stokes shift for photonic applications. Nature Communications, 2022, 13, .	12.8	38
3	Composite fast scintillators based on high-Z fluorescent metalâ€“organic framework nanocrystals. Nature Photonics, 2021, 15, 393-400.	31.4	93
4	Influence of the fiber drawing process on mechanical and vibrational properties of sol-gel silica glass. Journal of Non-Crystalline Solids, 2021, 555, 120534.	3.1	4
5	Functionalized Scintillating Nanotubes for Simultaneous Radio- and Photodynamic Therapy of Cancer. ACS Applied Materials & Interfaces, 2021, 13, 12997-13008.	8.0	13
6	Trapping Mechanisms and Delayed Recombination Processes in Scintillating Ce-Doped Solâ€“Gel Silica Fibers. Journal of Physical Chemistry C, 2021, 125, 11489-11498.	3.1	3
7	Understanding Thermal and Aâ€Thermal Trapping Processes in Lead Halide Perovskites Towards Effective Radiation Detection Schemes. Advanced Functional Materials, 2021, 31, 2104879.	14.9	20
8	Substantial reduction of trapping by Mg co-doping in LuAG:Ce, Mg epitaxial garnet films. Journal of Luminescence, 2021, 238, 118230.	3.1	4
9	Multipurpose Ce-doped Ba-Gd silica glass scintillator for radiation measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1015, 165762.	1.6	13
10	Analysis and comparison of the Core-to-Valence Luminescence mechanism in a large CLYC crystal under neutron and Î³-ray irradiation through optical filtering selection of the scintillation light. Sensors and Actuators A: Physical, 2021, 332, 113151.	4.1	6
11	Silver centers luminescence in phosphate glasses subjected to Xâ€Rays or combined Xâ€rays and femtosecond laser exposure. International Journal of Applied Glass Science, 2020, 11, 15-26.	2.0	9
12	The Bright Xâ€Ray Stimulated Luminescence of HfO₂ Nanocrystals Activated by Ti Ions. Advanced Optical Materials, 2020, 8, 1901348.	7.3	13
13	Luminescence and charge trapping features of archPbMoO4 lead molybdate crystals grown from archaeological lead. Journal of Luminescence, 2020, 224, 117305.	3.1	8
14	Morphology Related Defectiveness in ZnO Luminescence: From Bulk to Nano-Size. Nanomaterials, 2020, 10, 1983.	4.1	14
15	Efficient, fast and reabsorption-free perovskite nanocrystal-based sensitized plastic scintillators. Nature Nanotechnology, 2020, 15, 462-468.	31.5	226
16	Development of a new optical-based quasi-digital particle discrimination technique using inorganic scintillators. Radiation Measurements, 2020, 135, 106370.	1.4	3
17	CaloCube: a new concept calorimeter for the detection of high energy cosmic rays in space. Journal of Physics: Conference Series, 2019, 1162, 012042.	0.4	6
18	Trapping and Recombination Centers in Cesium Hafnium Chloride Single Crystals: EPR and TSL Study. Journal of Physical Chemistry C, 2019, 123, 19402-19411.	3.1	19

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19	Fabrication and luminescence of Ce-doped GGAG transparent ceramics, effect of sintering parameters and additives. Ceramics International, 2019, 45, 23283-23288.	4.8	15
20	Insight into the Influence of ZnO Defectivity on the Catalytic Generation of Environmentally Persistent Free Radicals in ZnO/SiO₂ Systems. Journal of Physical Chemistry C, 2019, 123, 21651-21661.	3.1	25
21	On the stabilization of Ce, Tb, and Eu ions with different oxidation states in silica-based glasses. Journal of Alloys and Compounds, 2019, 797, 302-308.	5.5	9
22	A New Approach to Calorimetry in Space-Based Experiments for High-Energy Cosmic Rays. Universe, 2019, 5, 72.	2.5	2
23	Evidence of Optically Stimulated Luminescence in Lu₃Al₅O₁₂:Ce. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900103.	1.8	7
24	Infrared spectroscopic properties of low-phonon lanthanide-doped KLuS2 crystals. Journal of Luminescence, 2019, 211, 100-107.	3.1	10
25	Dual Cherenkov and Scintillation Response to High-Energy Electrons of Rare-Earth-Doped Silica Fibers. Physical Review Applied, 2019, 11, .	3.8	9
26	The CALOCUBE project for a space based cosmic ray experiment: design, construction, and first performance of a high granularity calorimeter prototype. Journal of Instrumentation, 2019, 14, P11004-P11004.	1.2	12
27	Neutron/Î³ discrimination by an emission-based phoswich approach. Radiation Measurements, 2019, 129, 106203.	1.4	10
28	The influence of air annealing on the microstructure and scintillation properties of Ce,Mg:Lu<scp>AG</scp> ceramics. Journal of the American Ceramic Society, 2019, 102, 1805-1813.	3.8	18
29	Charge trapping processes and energy transfer studied in lead molybdate by EPR and TSL. Journal of Luminescence, 2019, 205, 457-466.	3.1	15
30	Demonstration of cellular imaging by using luminescent and anti-cytotoxic europium-doped hafnia nanocrystals. Nanoscale, 2018, 10, 7933-7940.	5.6	24
31	Influence of cerium doping concentration on the optical properties of Ce,Mg:LuAG scintillation ceramics. Journal of the European Ceramic Society, 2018, 38, 3246-3254.	5.7	23
32	Radio-luminescence spectral features and fast emission in hafnium dioxide nanocrystals. Physical Chemistry Chemical Physics, 2018, 20, 15907-15915.	2.8	10
33	Luminescent properties of binary MO-2SiO2 (MÂ= Ca2+, Sr2+, Ba2+) glasses doped with Ce3+, Tb3+ and Dy3+. Journal of Alloys and Compounds, 2018, 765, 207-212.	5.5	14
34	Radiation hardness of Ce-doped sol-gel silica fibers for high energy physics applications. Optics Letters, 2018, 43, 903.	3.3	21
35	Tunneling recombinations in scintillators, phosphors, and dosimeters. Radiation Measurements, 2018, 118, 86-97.	1.4	27
36	Recent Advances in Scintillating Optical Fibre Dosimeters. , 2018, , 253-262.		0

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37	The FLARES project: An innovative detector technology for rare events searches. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 845, 334-337.	1.6	0
38	Medical Applications of Nanomaterials. NATO Science for Peace and Security Series B: Physics and Biophysics, 2017, , 369-386.	0.3	2
39	Real-time dosimetry with Yb-doped silica optical fibres. Physics in Medicine and Biology, 2017, 62, 4218-4236.	3.0	37
40	Photo- and radio-luminescence properties of 3CaO-2SiO 2 and 3CaF 2 -2SiO 2 glasses doped by<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0007.gif" overflow="scroll"><mml:msup><mml:mrow><mml:mi>Ce</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow><mml:mo>+</mml:mo></mml:msup></mml:math> Journal of Luminescence, 2017, 188, 289-294.	3.1	8
41	The role of air annealing on the optical and scintillation properties of Mg co-doped Pr:LuAG transparent ceramics. Optical Materials, 2017, 72, 201-207.	3.6	16
42	CaloCube: a novel calorimeter for high-energy cosmic rays in space. Journal of Instrumentation, 2017, 12, C06004-C06004.	1.2	0
43	Optical properties and radiation hardness of Pr-doped sol-gel silica: Influence of fiber drawing process. Journal of Luminescence, 2017, 192, 661-667.	3.1	14
44	Electron self-trapped at molybdenum complex in lead molybdate: An EPR and TSL comparative study. Journal of Luminescence, 2017, 192, 767-774.	3.1	15
45	UniBEaM: A silica fiber monitor for charged particle beams. AIP Conference Proceedings, 2017, , .	0.4	3
46	A Low-cost Beam Profiler Based On Cerium-doped Silica Fibers. Physics Procedia, 2017, 90, 215-222.	1.2	18
47	CaloCube: A new-concept calorimeter for the detection of high-energy cosmic rays in space. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 845, 421-424.	1.6	16
48	CaloCube: an innovative homogeneous calorimeter for the next-generation space experiments. Journal of Physics: Conference Series, 2017, 928, 012013.	0.4	10
49	CaloCube: a novel calorimeter for high-energy cosmic rays in space. EPJ Web of Conferences, 2017, 136, 02011.	0.3	0
50	Characterization of Yb-doped silica optical fiber as real-time dosimeter. , 2017, , .		0
51	Towards Bright and Fast Lu₃Al₅O₁₂:Ce,Mg Optical Ceramics Scintillators. Advanced Optical Materials, 2016, 4, 731-739.	7.3	87
52	Role of Y Admixture in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mrow><mml:mi>Lu</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mn	3.8	23
53	Physical Review Applied, 2016, 6, . Size-Dependent Luminescence in HfO₂ Nanocrystals: Toward White Emission from Intrinsic Surface Defects. Chemistry of Materials, 2016, 28, 3245-3253.	6.7	54
54	A flexible scintillation light apparatus for rare events searches. Journal of Physics: Conference Series, 2016, 718, 062021.	0.4	0

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55	Calocubeâ€"A highly segmented calorimeter for a space based experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 824, 609-613.	1.6	13
56	Crystal Composition and Afterglow in Mixed Silicates: The Role of Melting Temperature. Physical Review Applied, 2015, 4, .	3.8	20
57	CALOCUBE: an approach to high-granularity and homogenous calorimetry for space based detectors. Journal of Physics: Conference Series, 2015, 587, 012029.	0.4	10
58	Role of Optical Fiber Drawing in Radioluminescence Hysteresis of Yb-Doped Silica. Journal of Physical Chemistry C, 2015, 119, 15572-15578.	3.1	19
59	ESR and TSL study of hole and electron traps in LuAG:Ce,Mg ceramic scintillator. Optical Materials, 2015, 45, 252-257.	3.6	21
60	O^{â€“} centers in LuAG:Ce,Mg ceramics. Physica Status Solidi - Rapid Research Letters, 2015, 9, 245-249.	2.4	35
61	1.3 Î¼m emitting SrF2:Nd3+ nanoparticles for high contrast in vivo imaging in the second biological window. Nano Research, 2015, 8, 649-665.	10.4	185
62	Rare Earth Doped Silica Optical Fibre Sensors for Dosimetry in Medical and Technical Applications. Advances in Optics, 2014, 2014, 1-9.	0.3	17
63	Temperature dependence of a Ce3+ doped SiO2 radioluminescent dosimeter for inÂvivo dose measurements in HDR brachytherapy. Radiation Measurements, 2014, 71, 324-328.	1.4	5
64	Infrared luminescence for real time ionizing radiation detection. Applied Physics Letters, 2014, 105, .	3.3	33
65	Radioluminescence Sensitization in Scintillators and Phosphors: Trap Engineering and Modeling. Journal of Physical Chemistry C, 2014, 118, 9670-9676.	3.1	53
66	The radiation hardness of Pr:LuAG scintillating ceramics. Ceramics International, 2014, 40, 3715-3719.	4.8	24
67	Fabrication and scintillation properties of highly transparent Pr:LuAG ceramics using Sc,La-based isovalent sintering aids. Ceramics International, 2013, 39, 5985-5990.	4.8	18
68	Multifunctional Role of Rare Earth Doping in Optical Materials: Nonaqueous Solâ€"Gel Synthesis of Stabilized Cubic HfO₂ Luminescent Nanoparticles. ACS Nano, 2013, 7, 7041-7052.	14.6	84
69	Characterization of a Ce3+ doped SiO2 optical dosimeter for dose measurements in HDR brachytherapy. Radiation Measurements, 2013, 56, 312-315.	1.4	23
70	Defect-Driven Radioluminescence Sensitization in Scintillators: The Case of Lu₂Si₂O₇:Pr. Journal of Physical Chemistry C, 2013, 117, 20201-20208.	3.1	36
71	The influence of the stem effect in Eu-doped silica optical fibres. Radiation Measurements, 2013, 56, 316-319.	1.4	17
72	Eu Incorporation into Solâ€"Gel Silica for Photonic Applications: Spectroscopic and TEM Evidences of Î±-Quartz and Eu Pyrosilicate Nanocrystal Growth. Journal of Physical Chemistry C, 2013, 117, 26831-26848.	3.1	12

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73	Study of the radioluminesence spectra of doped silica optical fibre dosimeters for stem effect removal. Journal Physics D: Applied Physics, 2013, 46, 015101.	2.8	25
74	Nanophosphor GdOBr:Ce via combustion synthesis: luminescence results. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 227-231.	0.8	0
75	Optical methods for the evaluation of the thermal ionization barrier of lanthanide excited states in luminescent materials. Physical Review B, 2012, 85, .	3.2	36
76	The Harmful Effects of Sintering Aids in <scp><scp>Pr</scp></scp>:<scp><scp>Lu</scp><scp>AG</scp></scp> Optical Ceramic Scintillator. Journal of the American Ceramic Society, 2012, 95, 2130-2132.	3.8	39
77	Defect states in Pr3+ doped lutetium pyrosilicate. Optical Materials, 2012, 34, 872-877.	3.6	22
78	Incorporation of Ce3+ in crystalline Gd-silicate nanoclusters formed in silica. Journal of Luminescence, 2012, 132, 461-466.	3.1	28
79	Defect-Free Engineering of Shallow traps in rare-earth Lu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>5</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	3.2	288
80	Feasibility study for the use of cerium-doped silica fibres in proton therapy. Radiation Measurements, 2010, 45, 635-639.	1.4	38
81	Feasibility of dose assessment in radiological diagnostic equipments using Ce-doped radio-luminescent optical fibers. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 612, 407-411.	1.6	13
82	Evidences of Rare-Earth Nanophases Embedded in Silica Using Vibrational Spectroscopy. IEEE Transactions on Nuclear Science, 2010, 57, 1361-1369.	2.0	14
83	Optical and Structural Properties of Pb and Ce Doped ${hbox {SrHfO}}_{3}$ Powders. IEEE Transactions on Nuclear Science, 2010, 57, 1245-1250.	2.0	19
84	Correction to â€œEvidences of Rare-Earth Nanophases Embedded in Silica Using Vibrational Spectroscopyâ€•[Jun 10 1361-1369. IEEE Transactions on Nuclear Science, 2010, 57, 2405-2405.	2.0	0
85	Can Pr-Doped YAP Scintillator Perform Better?. IEEE Transactions on Nuclear Science, 2010, 57, 1168-1174.	2.0	17
86	Pr³⁺-doped complex oxide single crystal scintillators. Journal Physics D: Applied Physics, 2009, 42, 055117.	2.8	128
87	Intrinsic trapping and recombination centers in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CdWO</mml:mtext></mml:mrow><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> using thermally stimulated luminescence. Physical Review B, 2009, 80, .	3.2	15
88	Effect of reducing sintering atmosphere on Ce-doped solâ€“gel silica glasses. Journal of Non-Crystalline Solids, 2009, 355, 1140-1144.	3.1	46
89	Complex oxide scintillators: Material defects and scintillation performance. Physica Status Solidi (B): Basic Research, 2008, 245, 1701-1722.	1.5	182
90	Ce-doped optical fibre as radioluminescent dosimeter in radiotherapy. Radiation Measurements, 2008, 43, 888-892.	1.4	48

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91	Luminescence and scintillation characteristics of heavily Pr3+-doped PbWO4 single crystals. Journal of Applied Physics, 2008, 104, 093514.	2.5	20
92	Scintillator Materialsâ€"Achievements, Opportunities, and Puzzles. IEEE Transactions on Nuclear Science, 2008, 55, 1035-1041.	2.0	60
93	Suppression of Host Luminescence in the Pr:LuAG Scintillator. IEEE Transactions on Nuclear Science, 2008, 55, 1197-1200.	2.0	9
94	Crystal Growth and Scintillating Properties of Zr/Si-Codoped ${m YAlO}_{3}:{m Pr}^{3+}$. IEEE Transactions on Nuclear Science, 2008, 55, 1476-1479.	2.0	15
95	Thermally stimulated tunneling in rare-earth-doped oxyorthosilicates. Physical Review B, 2008, 78, .	3.2	139
96	Shallow Traps in ${m YAlO}_{3}:{m Ce}$ Single Crystal Perovskites. IEEE Transactions on Nuclear Science, 2008, 55, 1114-1117.	2.0	22
97	Shallow traps and radiative recombination processes in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Lu</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Al</mml:mi><mml:mn>5</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>12</mml:mn></mml:msub><mml:mo>:</mml:mo><mml:mi mathvariant="normal">Ce</mml:mi></mml:mrow></mml:math> single crystal scintillator. Physical Revi	3.2	168
98	Scintillation characteristics of Lu3Al5O12:Ce optical ceramics. Journal of Applied Physics, 2007, 101, 033515.	2.5	64
99	Crystal growth and scintillating properties of (Pr,Si)â€doped YAlO₃. Crystal Research and Technology, 2007, 42, 1324-1328.	1.3	10
100	Luminescence and scintillation properties of Y3Al5O12:Pr single crystal. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1012-1015.	0.8	12
101	Phosphorescence of SiO2 optical fibres doped with Ce3+ ions. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1024-1027.	0.8	16
102	Effect of deep traps on the optical properties of Tb3+ doped sol-gel silica. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1056-1059.	0.8	15
103	Thermoluminescence study of cerium-doped lanthanum halides. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1004-1007.	0.8	6
104	Antisite defect-free Lu3(GaxAl1â^'x)5O12:Pr scintillator. Applied Physics Letters, 2006, 88, 141916.	3.3	143
105	Insights into Microstructural Features Governing Ce3+ Luminescence Efficiency in Solâ^'Gel Silica Glasses. Chemistry of Materials, 2006, 18, 6178-6185.	6.7	44
106	Feasibility study for the use of Ce3+-doped optical fibres in radiotherapy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 562, 449-455.	1.6	48
107	The antisite LuAl defect-related trap in Lu3Al5O12:Ce single crystal. Physica Status Solidi (B): Basic Research, 2005, 242, R119-R121.	1.5	199
108	Electron capture inPbWO4: Mo andPbWO4:Mo,La single crystals: ESR and TSL study. Physical Review B, 2005, 71, .	3.2	39

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109	Thermally stimulated luminescence of Ce and Tb doped SiO2 solâ€“gel glasses. Journal of Non-Crystalline Solids, 2005, 351, 3699-3703.	3.1	33
110	Ce3+-doped fibers for remote radiation dosimetry. Applied Physics Letters, 2004, 85, 6356-6358.	3.3	123
111	Evidences of Rare Earth Ion Aggregates in a Solâ^'Gel Silica Matrix:Â The Case of Cerium and Gadolinium. Chemistry of Materials, 2004, 16, 3352-3356.	6.7	22
112	Electron traps related to oxygen vacancies inPbWO4. Physical Review B, 2003, 67, .	3.2	49
113	Thermoluminescence of Zr-codoped Lu3Al5O12:Ce crystals. Physica Status Solidi A, 2003, 195, R1-R3.	1.7	35
114	Optical properties of Ce3+-doped solâ€“gel silicate glasses. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 486, 259-263.	1.6	34
115	Vibrational spectroscopy of OH-related groups in Ce3+- and Gd3+-doped silicate glasses. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 486, 408-411.	1.6	26
116	Traps and Timing Characteristics of LuAG:Ce3+ Scintillator. Physica Status Solidi A, 2000, 181, R10-R12.	1.7	194
117	Efficient Medium-Speed PbWO4:Mo,Y Scintillator. Physica Status Solidi A, 2000, 182, R3-R5.	1.7	24
118	Tunneling process in thermally stimulated luminescence of mixedLuxY1â^'xAlO3:Cecrystals. Physical Review B, 2000, 61, 8081-8086.	3.2	70
119	Shallow traps inPbWO4studied by wavelength-resolved thermally stimulated luminescence. Physical Review B, 1999, 60, 4653-4658.	3.2	52
120	Radiation induced trap levels in SIMOX oxides: low temperature thermally stimulated luminescence. IEEE Transactions on Nuclear Science, 1998, 45, 1396-1401.	2.0	14