Federico Moretti

List of Publications by Year
in descending order

92	1,736	279798	345221
papers	citations	23 h-index	36 g-index

93	93	93	1383
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ce3+-doped fibers for remote radiation dosimetry. Applied Physics Letters, 2004, 85, 6356-6358.	3.3	123
2	Optical and scintillation characteristics of Y2O3 transparent ceramic. Journal of Applied Physics, 2010, 107, .	2.5	72
3	Theia: an advanced optical neutrino detector. European Physical Journal C, 2020, 80, 1.	3.9	70
4	Perfectly Transparent Sr₃Al₂O₆ Polycrystalline Ceramic Elaborated from Glass Crystallization. Chemistry of Materials, 2013, 25, 4017-4024.	6.7	60
5	Radioluminescence Sensitization in Scintillators and Phosphors: Trap Engineering and Modeling. Journal of Physical Chemistry C, 2014, 118, 9670-9676.	3.1	53
6	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
7	Ce-doped optical fibre as radioluminescent dosimeter in radiotherapy. Radiation Measurements, 2008, 43, 888-892.	1.4	48
8	Effect of reducing sintering atmosphere on Ce-doped solâ€“gel silica glasses. Journal of Non-Crystalline Solids, 2009, 355, 1140-1144.	3.1	46
9	Insights into Microstructural Features Governing Ce3+ Luminescence Efficiency in Solâ”Gel Silica Glasses. Chemistry of Materials, 2006, 18, 6178-6185.	6.7	44
10	Ce-doped LuAG single-crystal fibers grown from the melt for high-energy physics. Acta Materialia, 2014, 67, 232-238.	7.9	44
11	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
12	Feasibility study for the use of cerium-doped silica fibres in proton therapy. Radiation Measurements, 2010, 45, 635-639.	1.4	38
13	Crystal growth and luminescence properties of Ti-doped LiAlO2 for neutron scintillator. Journal of Crystal Growth, 2011, 318, 828-832.	1.5	34
14	Single crystalline LuAG fibers for homogeneous dual-readout calorimeters. Journal of Instrumentation, 2013, 8, P09019-P09019.	1.2	34
15	Thermally stimulated luminescence of Ce and Tb doped SiO2 solâ€“gel glasses. Journal of Non-Crystalline Solids, 2005, 351, 3699-3703.	3.1	33
16	Growth of Tm³⁺-Doped Y₂O₃, Sc₂O₃, and Lu₂O₃ Crystals by the Micropulling down Technique and Their Optical and Scintillation Characteristics. Crystal Growth and Design, 2011, 11, 2404-2411.	3.0	33
17	Growth of Y2O3, Sc2O3 and Lu2O3 crystals by the micro-pulling-down method and their optical and scintillation characteristics. Journal of Crystal Growth, 2011, 318, 823-827.	1.5	30
18	Gd-incorporation and luminescence properties in solâ€“gel silica glasses. Journal of Non-Crystalline Solids, 2008, 354, 3817-3823.	3.1	28

#	Article	IF	Citations
19	Afterglow Suppression by Codoping with Bi in CsI:Tl Crystal Scintillator. Applied Physics Express, 2012, 5, 052601.	2.4	28
20	Incorporation of Ce3+ in crystalline Gd-silicate nanoclusters formed in silica. Journal of Luminescence, 2012, 132, 461-466.	3.1	28
21	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
22	Comparative scintillation performance of EJ-309, EJ-276, and a novel organic glass. Journal of Instrumentation, 2020, 15, P11020-P11020.	1.2	25
23	The radiation hardness of Pr:LuAG scintillating ceramics. Ceramics International, 2014, 40, 3715-3719.	4.8	24
24	A study of radiation effects on LuAG:Ce(Pr) co-activated with Ca. Journal of Crystal Growth, 2015, 430, 46-51.	1.5	24
25	Light yield sensitization by X-ray irradiation of the BaAl4O7:Eu2+ceramic scintillator obtained by full crystallization of glass. Physical Chemistry Chemical Physics, 2014, 16, 24824-24829.	2.8	23
26	Shallow Traps in ${m YAlO}_{3}:{m Ce}$ Single Crystal Perovskites. IEEE Transactions on Nuclear Science, 2008, 55, 1114-1117.	2.0	22
27	Defect states in Pr3+ doped lutetium pyrosilicate. Optical Materials, 2012, 34, 872-877.	3.6	22
28	The Influence of Oxygen Vacancies on Luminescence Properties of Na₃LuSi₃O₉:Ce³⁺. Journal of Physical Chemistry C, 2016, 120, 18741-18747.	3.1	21
29	Radiation hardness of Ce-doped sol-gel silica fibers for high energy physics applications. Optics Letters, 2018, 43, 903.	3.3	21
30	Optical absorption and emission properties of Gd3+ in silica host. Journal of Luminescence, 2007, 126, 759-763.	3.1	19
31	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
32	Role of Optical Fiber Drawing in Radioluminescence Hysteresis of Yb-Doped Silica. Journal of Physical Chemistry C, 2015, 119, 15572-15578.	3.1	19
33	Deep traps can reduce memory effects of shallower ones in scintillators. Physical Chemistry Chemical Physics, 2016, 18, 1178-1184.	2.8	19
34	Consequences of Ca Codoping in YAlO₃:Ce Single Crystals. ChemPhysChem, 2017, 18, 493-499.	2.1	19
35	Time response of water-based liquid scintillator from X-ray excitation. Materials Advances, 2020, 1, 71-76.	5.4	19
36	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

#	Article	IF	Citations
37	The influence of the stem effect in Eu-doped silica optical fibres. Radiation Measurements, 2013, 56, 316-319.	1.4	17
38	Growth of long undoped and Ce-doped LuAG single crystal fibers for dual readout calorimetry. Journal of Crystal Growth, 2016, 435, 31-36.	1.5	17
39	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
40	Structure and morphology of scintillating Ce- and Pb-doped strontium hafnate powders. Optical Materials, 2010, 32, 1356-1359.	3.6	16
41	Intrinsic and impurity-induced emission bands in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SrHfO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:r Physical Review B, 2010, 82, .	3.2	16
42	Optical and scintillation properties of Pr-doped Li-glass for neutron detection in inertial confinement fusion process. Journal of Non-Crystalline Solids, 2011, 357, 910-914.	3.1	16
43	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
44	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: using thermally stimulated luminescence. Physical Review B, 2009, 80, .	3.2	15
45	Enhanced Transparency through Second Phase Crystallization in BaAl₄O₇ Scintillating Ceramics. Crystal Growth and Design, 2016, 16, 386-395.	3.0	15
46	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
47	Growth and characterization of Ce-doped YAG and LuAG fibers. Optical Materials, 2017, 65, 66-68.	3.6	15
48	Charge trapping processes and energy transfer studied in lead molybdate by EPR and TSL. Journal of Luminescence, 2019, 205, 457-466.	3.1	15
49	Evidences of Rare-Earth Nanophases Embedded in Silica Using Vibrational Spectroscopy. IEEE Transactions on Nuclear Science, 2010, 57, 1361-1369.	2.0	14
50	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
51	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
52	Luminescence properties of rare-earth ions in SiO2 glasses prepared by the solâ€“gel method. Journal of Non-Crystalline Solids, 2004, 345-346, 338-342.	3.1	13
53	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
54	The Bright Xâ€Ray Stimulated Luminescence of HfO₂ Nanocrystals Activated by Ti Ions. Advanced Optical Materials, 2020, 8, 1901348.	7.3	13

#	Article	IF	Citations
55	Modified floating-zone crystal growth of Mg₄Ta₂O₉ and its scintillation performance. CrystEngComm, 2020, 22, 3497-3504.	2.6	13
56	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
57	Drastic Scintillation Yield Enhancement of YAG:Ce with Carbon Doping. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800122.	1.8	12
58	Defect states in Lu3GaxAl5â^'xO12 crystals and powders. Optical Materials, 2010, 32, 1298-1301.	3.6	10
59	Radio-luminescence spectral features and fast emission in hafnium dioxide nanocrystals. Physical Chemistry Chemical Physics, 2018, 20, 15907-15915.	2.8	10
60	Ce-doped SiO 2 optical fibers for remote radiation sensing and measurement. , 2009, , .		9
61	Prompt and delayed recombination mechanisms in Lu4Hf3O12 nanophosphors. Optical Materials, 2011, 34, 228-233.	3.6	9
62	Effect of Ce doping on scintillation characteristics of LiYF4 single crystals for Î³-ray detection. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 631, 68-72.	1.6	9
63	Effect of Au codoping on the scintillation properties of BaBrCl:Eu single crystals. Journal of Luminescence, 2018, 202, 497-501.	3.1	9
64	Radio-luminescence efficiency and rare-earth dispersion in Tb-doped silica glasses. Radiation Measurements, 2007, 42, 784-787.	1.4	8
65	Effect of Eu and Pb doping on the dosimetric properties of LiCAF. Radiation Measurements, 2010, 45, 556-558.	1.4	8
66	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:mo>+</mml:mo></mml:mrow></mml:msup></mml:math> ions. Journal of Luminescence, 2017, 188, 289-294.	3.1	8
67	Crystal-field spectroscopy of Eu3+ doped silica glasses. Journal of Non-Crystalline Solids, 2011, 357, 1916-1920.	3.1	7
68	Trapping states and excited state ionization of the Ce3+ activator in the SrHfO3 host. Chemical Physics Letters, 2013, 556, 89-93.	2.6	7
69	Luminescence mechanism and energy transfer in doubly-doped BaY2F8:Tm,Nd VUV scintillator. IOP Conference Series: Materials Science and Engineering, 2010, 15, 012018.	0.6	6
70	Acetateâ€“citrate gel combustion: a strategy for the synthesis of nanosized lutetium hafnate phosphor powders. Journal of Materials Chemistry, 2011, 21, 8975.	6.7	6
71	Luminescence properties of Na₃LuSi₃O₉:Ce³⁺ as a potential scintillator material. RSC Advances, 2015, 5, 102477-102480.	3.6	5
72	Picosecond Absorption Spectroscopy of Excited States in BaBrCl with and without Eu Dopant and Au Codopant. Physical Review Applied, 2019, 12, .	3.8	5

#	Article	IF	Citations
73	Devising novel methods for the controlled synthesis with morphology and size control of scintillator materials. Journal of Materials Chemistry C, 2020, 8, 8622-8634.	5.5	5
74	FTIR spectroscopy to investigate the role of fluorine on the optical properties of pure and rare earth-doped solâ€“gel silica. Journal of Non-Crystalline Solids, 2007, 353, 564-567.	3.1	4
75	Luminescence and defects of Yb3+-doped solâ€“gel silica glasses. Journal of Non-Crystalline Solids, 2007, 353, 486-489.	3.1	4
76	Updating of the interpretation of the optical absorption and emission of Verneuil synthetic and natural metamorphic blue sapphire: the role of V2+, V3+and Cr2+. IOP Conference Series: Materials Science and Engineering, 2010, 15, 012087.	0.6	4
77	Luminescence study of transition metal ions in natural magmatic and metamorphic yellow sapphires. IOP Conference Series: Materials Science and Engineering, 2010, 15, 012086.	0.6	4
78	Substantial reduction of trapping by Mg co-doping in LuAG:Ce, Mg epitaxial garnet films. Journal of Luminescence, 2021, 238, 118230.	3.1	4
79	GaAs as a Bright Cryogenic Scintillator for the Detection of Low-Energy Electron Recoils From MeV/c² Dark Matter. IEEE Transactions on Nuclear Science, 2019, 66, 2333-2337.	2.0	3
80	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
81	The crystal structure of TlMgCl₃ from 290â€…K to 725â€…K. Acta Crystallographica Section E: Crystallographic Communications, 2020, 76, 1716-1719.	0.5	3
82	Study on the single crystal growth of concentration gradient Ce:YAP rod and the dopant concentration dependence on the scintillation properties. Radiation Measurements, 2010, 45, 453-456.	1.4	2
83	Investigation of the competition between Tl+ and Ce3+ scintillation in Tl2LiYCl6:Ce, an elpasolite scintillator. Journal of Luminescence, 2022, 241, 118549.	3.1	2
84	Study of SiO2 Modifications Induced by Oxygen Plasmas and Their Effect on Wet Processes. ECS Transactions, 2007, 11, 239-246.	0.5	1
85	X-ray luminescence properties of LiLa1â^'xNdxP4O12 nanocrystals: Concentration and size effects. Optical Materials, 2015, 50, 134-137.	3.6	1
86	Effect of AuBr₃ additive on the scintillation properties of BaBr₂:Eu and Cs₂LiLaBr₆:Ce. Materials Advances, 2020, 1, 2450-2458.	5.4	1
87	Ce-doped SiO 2 glass as scintillating material: variation on the synthesis procedure for the improvement of material properties. , 2006, , .		0
88	Structural and optical properties of Tb-doped Naâ€“Gd metaphosphate glasses and glass-ceramics. Journal of Physics Condensed Matter, 2009, 21, 155103.	1.8	0
89	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
90	Conference Comments by the Editors. IEEE Transactions on Nuclear Science, 2018, 65, 1976-1976.	2.0	0

#	Article	IF	Citations
91	MOâ€“SiO2 and MOâ€“SiO2â€“Gd2O3 (MÂ=ÂCa, Ba) Scintillation Glasses. Springer Proceedings in Physics, 2017, , 160-166.	0.2	0
92	Recent Advances in Scintillating Optical Fibre Dosimeters. , 2018, , 253-262.		0