

Federico Moretti

List of Publications by Year in descending order

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92
papers

1,736
citations

279701

23
h-index

345118

36
g-index

93
all docs

93
docs citations

93
times ranked

1383
citing authors

#	ARTICLE	IF	CITATIONS
1	Ce ³⁺ -doped fibers for remote radiation dosimetry. Applied Physics Letters, 2004, 85, 6356-6358.	1.5	123
2	Optical and scintillation characteristics of Y ₂ O ₃ transparent ceramic. Journal of Applied Physics, 2010, 107, .	1.1	72
3	Theia: an advanced optical neutrino detector. European Physical Journal C, 2020, 80, 1.	1.4	70
4	Perfectly Transparent Sr ₃ Al ₂ O ₆ Polycrystalline Ceramic Elaborated from Glass Crystallization. Chemistry of Materials, 2013, 25, 4017-4024.	3.2	60
5	Radioluminescence Sensitization in Scintillators and Phosphors: Trap Engineering and Modeling. Journal of Physical Chemistry C, 2014, 118, 9670-9676.	1.5	53
6	Feasibility study for the use of Ce ³⁺ -doped optical fibres in radiotherapy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 562, 449-455.	0.7	48
7	Ce-doped optical fibre as radioluminescent dosimeter in radiotherapy. Radiation Measurements, 2008, 43, 888-892.	0.7	48
8	Effect of reducing sintering atmosphere on Ce-doped sol-gel silica glasses. Journal of Non-Crystalline Solids, 2009, 355, 1140-1144.	1.5	46
9	Insights into Microstructural Features Governing Ce ³⁺ Luminescence Efficiency in Sol-gel Silica Glasses. Chemistry of Materials, 2006, 18, 6178-6185.	3.2	44
10	Ce-doped LuAG single-crystal fibers grown from the melt for high-energy physics. Acta Materialia, 2014, 67, 232-238.	3.8	44
11	The Harmful Effects of Sintering Aids in Pr:LuAG Optical Ceramic Scintillator. Journal of the American Ceramic Society, 2012, 95, 2130-2132.	1.9	39
12	Feasibility study for the use of cerium-doped silica fibres in proton therapy. Radiation Measurements, 2010, 45, 635-639.	0.7	38
13	Crystal growth and luminescence properties of Ti-doped LiAlO ₂ for neutron scintillator. Journal of Crystal Growth, 2011, 318, 828-832.	0.7	34
14	Single crystalline LuAG fibers for homogeneous dual-readout calorimeters. Journal of Instrumentation, 2013, 8, P09019-P09019.	0.5	34
15	Thermally stimulated luminescence of Ce and Tb doped SiO ₂ sol-gel glasses. Journal of Non-Crystalline Solids, 2005, 351, 3699-3703.	1.5	33
16	Growth of Tm ³⁺ -Doped Y ₂ O ₃ , Sc ₂ O ₃ , and Lu ₂ O ₃ Crystals by the Micropulling down Technique and Their Optical and Scintillation Characteristics. Crystal Growth and Design, 2011, 11, 2404-2411.	1.4	33
17	Growth of Y ₂ O ₃ , Sc ₂ O ₃ and Lu ₂ O ₃ crystals by the micro-pulling-down method and their optical and scintillation characteristics. Journal of Crystal Growth, 2011, 318, 823-827.	0.7	30
18	Gd-incorporation and luminescence properties in sol-gel silica glasses. Journal of Non-Crystalline Solids, 2008, 354, 3817-3823.	1.5	28

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19	Afterglow Suppression by Codoping with Bi in CsI:Tl Crystal Scintillator. Applied Physics Express, 2012, 5, 052601.	1.1	28
20	Incorporation of Ce ³⁺ in crystalline Gd-silicate nanoclusters formed in silica. Journal of Luminescence, 2012, 132, 461-466.	1.5	28
21	Study of the radioluminescence spectra of doped silica optical fibre dosimeters for stem effect removal. Journal Physics D: Applied Physics, 2013, 46, 015101.	1.3	25
22	Comparative scintillation performance of EJ-309, EJ-276, and a novel organic glass. Journal of Instrumentation, 2020, 15, P11020-P11020.	0.5	25
23	The radiation hardness of Pr:LuAG scintillating ceramics. Ceramics International, 2014, 40, 3715-3719.	2.3	24
24	A study of radiation effects on LuAG:Ce(Pr) co-activated with Ca. Journal of Crystal Growth, 2015, 430, 46-51.	0.7	24
25	Light yield sensitization by X-ray irradiation of the BaAl ₄ O ₇ :Eu ²⁺ ceramic scintillator obtained by full crystallization of glass. Physical Chemistry Chemical Physics, 2014, 16, 24824-24829.	1.3	23
26	Shallow Traps in YAlO_3 :Ce Single Crystal Perovskites. IEEE Transactions on Nuclear Science, 2008, 55, 1114-1117.	1.2	22
27	Defect states in Pr ³⁺ doped lutetium pyrosilicate. Optical Materials, 2012, 34, 872-877.	1.7	22
28	The Influence of Oxygen Vacancies on Luminescence Properties of Na ₃ LuSi ₃ O ₉ :Ce ³⁺ . Journal of Physical Chemistry C, 2016, 120, 18741-18747.	1.5	21
29	Radiation hardness of Ce-doped sol-gel silica fibers for high energy physics applications. Optics Letters, 2018, 43, 903.	1.7	21
30	Optical absorption and emission properties of Gd ³⁺ in silica host. Journal of Luminescence, 2007, 126, 759-763.	1.5	19
31	Optical and Structural Properties of Pb and Ce Doped SrHfO_3 Powders. IEEE Transactions on Nuclear Science, 2010, 57, 1245-1250.	1.2	19
32	Role of Optical Fiber Drawing in Radioluminescence Hysteresis of Yb-Doped Silica. Journal of Physical Chemistry C, 2015, 119, 15572-15578.	1.5	19
33	Deep traps can reduce memory effects of shallower ones in scintillators. Physical Chemistry Chemical Physics, 2016, 18, 1178-1184.	1.3	19
34	Consequences of Ca Codoping in YAlO ₃ :Ce Single Crystals. ChemPhysChem, 2017, 18, 493-499.	1.0	19
35	Time response of water-based liquid scintillator from X-ray excitation. Materials Advances, 2020, 1, 71-76.	2.6	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.	2.3	18

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37	The influence of the stem effect in Eu-doped silica optical fibres. Radiation Measurements, 2013, 56, 316-319.	0.7	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.	0.7	17
39	Phosphorescence of SiO ₂ optical fibres doped with Ce ³⁺ 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.	1.7	16
41	Intrinsic and impurity-induced emission bands in SrHfO_3 . Physical Review B, 2010, 82, .	1.1	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.	1.5	16
43	Effect of deep traps on the optical properties of Tb ³⁺ 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 CdWO_4 using thermally stimulated luminescence. Physical Review B, 2009, 80, .	1.1	15
45	Enhanced Transparency through Second Phase Crystallization in BaAl ₄ O ₇ Scintillating Ceramics. Crystal Growth and Design, 2016, 16, 386-395.	1.4	15
46	Electron self-trapped at molybdenum complex in lead molybdate: An EPR and TSL comparative study. Journal of Luminescence, 2017, 192, 767-774.	1.5	15
47	Growth and characterization of Ce-doped YAG and LuAG fibers. Optical Materials, 2017, 65, 66-68.	1.7	15
48	Charge trapping processes and energy transfer studied in lead molybdate by EPR and TSL. Journal of Luminescence, 2019, 205, 457-466.	1.5	15
49	Evidences of Rare-Earth Nanophases Embedded in Silica Using Vibrational Spectroscopy. IEEE Transactions on Nuclear Science, 2010, 57, 1361-1369.	1.2	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.	1.5	14
51	Luminescent properties of binary MO-2SiO ₂ (M = Ca ²⁺ , Sr ²⁺ , Ba ²⁺) glasses doped with Ce ³⁺ , Tb ³⁺ and Dy ³⁺ . Journal of Alloys and Compounds, 2018, 765, 207-212.	2.8	14
52	Luminescence properties of rare-earth ions in SiO ₂ glasses prepared by the sol-gel method. Journal of Non-Crystalline Solids, 2004, 345-346, 338-342.	1.5	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.	0.7	13
54	The Bright X-Ray Stimulated Luminescence of HfO ₂ Nanocrystals Activated by Ti Ions. Advanced Optical Materials, 2020, 8, 1901348.	3.6	13

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55	Modified floating-zone crystal growth of $\text{Mg}_4\text{Ta}_2\text{O}_9$ and its scintillation performance. <i>CrystEngComm</i> , 2020, 22, 3497-3504.	1.3	13
56	Eu Incorporation into Sol-Gel Silica for Photonic Applications: Spectroscopic and TEM Evidences of β -Quartz and Eu Pyrosilicate Nanocrystal Growth. <i>Journal of Physical Chemistry C</i> , 2013, 117, 26831-26848.	1.5	12
57	Drastic Scintillation Yield Enhancement of YAG:Ce with Carbon Doping. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1800122.	0.8	12
58	Defect states in $\text{Lu}_3\text{Ga}_x\text{Al}_5\text{O}_{12}$ crystals and powders. <i>Optical Materials</i> , 2010, 32, 1298-1301.	1.7	10
59	Radio-luminescence spectral features and fast emission in hafnium dioxide nanocrystals. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15907-15915.	1.3	10
60	Ce-doped SiO_2 optical fibers for remote radiation sensing and measurement. , 2009, , .		9
61	Prompt and delayed recombination mechanisms in $\text{Lu}_4\text{Hf}_3\text{O}_{12}$ nanophosphors. <i>Optical Materials</i> , 2011, 34, 228-233.	1.7	9
62	Effect of Ce doping on scintillation characteristics of LiYF_4 single crystals for β -ray detection. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 631, 68-72.	0.7	9
63	Effect of Au codoping on the scintillation properties of BaBrCl:Eu single crystals. <i>Journal of Luminescence</i> , 2018, 202, 497-501.	1.5	9
64	Radio-luminescence efficiency and rare-earth dispersion in Tb-doped silica glasses. <i>Radiation Measurements</i> , 2007, 42, 784-787.	0.7	8
65	Effect of Eu and Pb doping on the dosimetric properties of LiCAF. <i>Radiation Measurements</i> , 2010, 45, 556-558.	0.7	8
66	Photo- and radio-luminescence properties of $3\text{CaO} \cdot 2\text{SiO}_2$ and $3\text{CaF}_2 \cdot 2\text{SiO}_2$ glasses doped by Ce^{3+} . <i>Journal of Luminescence</i> , 2017, 188, 289-294.	1.5	8
67	Crystal-field spectroscopy of Eu^{3+} doped silica glasses. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 1916-1920.	1.5	7
68	Trapping states and excited state ionization of the Ce^{3+} activator in the SrHfO_3 host. <i>Chemical Physics Letters</i> , 2013, 556, 89-93.	1.2	7
69	Luminescence mechanism and energy transfer in doubly-doped $\text{BaY}_2\text{F}_8:\text{Tm},\text{Nd}$ VUV scintillator. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010, 15, 012018.	0.3	6
70	Acetate-citrate gel combustion: a strategy for the synthesis of nanosized lutetium hafnate phosphor powders. <i>Journal of Materials Chemistry</i> , 2011, 21, 8975.	6.7	6
71	Luminescence properties of $\text{Na}_3\text{LuSi}_3\text{O}_9:\text{Ce}^{3+}$ as a potential scintillator material. <i>RSC Advances</i> , 2015, 5, 102477-102480.	1.7	5
72	Picosecond Absorption Spectroscopy of Excited States in BaBrCl with and without Eu Dopant and Au Codopant. <i>Physical Review Applied</i> , 2019, 12, .	1.5	5

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73	Devising novel methods for the controlled synthesis with morphology and size control of scintillator materials. <i>Journal of Materials Chemistry C</i> , 2020, 8, 8622-8634.	2.7	5
74	FTIR spectroscopy to investigate the role of fluorine on the optical properties of pure and rare earth-doped sol-gel silica. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 564-567.	1.5	4
75	Luminescence and defects of Yb ³⁺ -doped sol-gel silica glasses. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 486-489.	1.5	4
76	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.	0.3	4
77	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.	0.3	4
78	Substantial reduction of trapping by Mg co-doping in LuAG:Ce, Mg epitaxial garnet films. <i>Journal of Luminescence</i> , 2021, 238, 118230.	1.5	4
79	GaAs as a Bright Cryogenic Scintillator for the Detection of Low-Energy Electron Recoils From MeV/c ² Dark Matter. <i>IEEE Transactions on Nuclear Science</i> , 2019, 66, 2333-2337.	1.2	3
80	Trapping Mechanisms and Delayed Recombination Processes in Scintillating Ce-Doped Sol-Gel Silica Fibers. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11489-11498.	1.5	3
81	The crystal structure of TlMgCl ₃ from 290 K to 725 K. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2020, 76, 1716-1719.	0.2	3
82	Study on the single crystal growth of concentration gradient Ce:YAP rod and the dopant concentration dependence on the scintillation properties. <i>Radiation Measurements</i> , 2010, 45, 453-456.	0.7	2
83	Investigation of the competition between Tl ⁺ and Ce ³⁺ scintillation in Tl ₂ LiYCl ₆ :Ce, an elpasolite scintillator. <i>Journal of Luminescence</i> , 2022, 241, 118549.	1.5	2
84	Study of SiO ₂ Modifications Induced by Oxygen Plasmas and Their Effect on Wet Processes. <i>ECS Transactions</i> , 2007, 11, 239-246.	0.3	1
85	X-ray luminescence properties of LiLa _{1-x} Nd _x P ₄ O ₁₂ nanocrystals: Concentration and size effects. <i>Optical Materials</i> , 2015, 50, 134-137.	1.7	1
86	Effect of AuBr ₃ additive on the scintillation properties of BaBr ₂ :Eu and Cs ₂ LiLaBr ₆ :Ce. <i>Materials Advances</i> , 2020, 1, 2450-2458.	2.6	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 Na-Gd metaphosphate glasses and glass-ceramics. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 155103.	0.7	0
89	Correction to "Evidences of Rare-Earth Nanophases Embedded in Silica Using Vibrational Spectroscopy". <i>IEEE Transactions on Nuclear Science</i> , 2010, 57, 2405-2405.	1.2	0
90	Conference Comments by the Editors. <i>IEEE Transactions on Nuclear Science</i> , 2018, 65, 1976-1976.	1.2	0

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91	MO \hat{e} SiO ₂ and MO \hat{e} SiO ₂ \hat{e} Gd ₂ O ₃ (M $\hat{=}$ Ca, Ba) Scintillation Glasses. Springer Proceedings in Physics, 2017, , 160-166.	0,1	0
92	Recent Advances in Scintillating Optical Fibre Dosimeters. , 2018, , 253-262.		0