Sebastian Mahlik

List of Publications by Year
in descending order

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106	3,320	186265 28	168389 53
papers	citations	h-index	g-index

107	107	107	1941
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Super Broadband Near-Infrared Phosphors with High Radiant Flux as Future Light Sources for Spectroscopy Applications. ACS Energy Letters, 2018, 3, 2679-2684.	17.4	286
2	Narrow Red Emission Band Fluoride Phosphor KNaSiF₆:Mn⁴⁺ for Warm White Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2016, 8, 11194-11203.	8.0	228
3	High Color Rendering Index of Rb₂GeF₆:Mn⁴⁺ for Light-Emitting Diodes. Chemistry of Materials, 2017, 29, 935-939.	6.7	172
4	Penetrating Biological Tissue Using Light-Emitting Diodes with a Highly Efficient Near-Infrared ScBO₃:Cr³⁺ Phosphor. Chemistry of Materials, 2020, 32, 2166-2171.	6.7	142
5	Green Light-Excitable Ce-Doped Nitridomagnesoaluminate Sr[Mg₂Al₂N₄] Phosphor for White Light-Emitting Diodes. Chemistry of Materials, 2016, 28, 6822-6825.	6.7	138
6	Chromium Ion Pair Luminescence: A Strategy in Broadband Near-Infrared Light-Emitting Diode Design. Journal of the American Chemical Society, 2021, 143, 19058-19066.	13.7	125
7	Ultra-high-efficiency near-infrared Ga₂O₃:Cr³⁺ phosphor and controlling of phytochrome. Journal of Materials Chemistry C, 2020, 8, 11013-11017.	5.5	111
8	Hidden Structural Evolution and Bond Valence Control in Near-Infrared Phosphors for Light-Emitting Diodes. ACS Energy Letters, 2021, 6, 109-114.	17.4	110
9	Control of Luminescence by Tuning of Crystal Symmetry and Local Structure in Mn⁴⁺â€Activated Narrow Band Fluoride Phosphors. Angewandte Chemie - International Edition, 2018, 57, 1797-1801.	13.8	93
10	Enhance Color Rendering Index via Full Spectrum Employing the Important Key of Cyan Phosphor. ACS Applied Materials & Interfaces, 2016, 8, 30677-30682.	8.0	85
11	Chromium(III)-Doped Fluoride Phosphors with Broadband Infrared Emission for Light-Emitting Diodes. Inorganic Chemistry, 2020, 59, 376-385.	4.0	84
12	Ultra-Broadband Phosphors Converted Near-Infrared Light Emitting Diode with Efficient Radiant Power for Spectroscopy Applications. ACS Photonics, 2019, 6, 3215-3224.	6.6	64
13	Improvement of the Water Resistance of a Narrowâ€Band Redâ€Emitting SrLiAl₃N₄:Eu²⁺ Phosphor Synthesized under High Isostatic Pressure through Coating with an Organosilica Layer. Angewandte Chemie - International Edition, 2016, 55, 9652-9656.	13.8	63
14	Controlling of Structural Ordering and Rigidity of Î²-SiAlON:Eu through Chemical Cosubstitution to Approach Narrow-Band-Emission for Light-Emitting Diodes Application. Chemistry of Materials, 2017, 29, 6781-6792.	6.7	57
15	Structural Evolution and Effect of the Neighboring Cation on the Photoluminescence of Sr(LiAl₃)_{1â^'x}(SiMg₃)_xN₄:Eu²⁺ Phosphors. Angewandte Chemie - International Edition, 2019, 58, 7767-7772.	13.8	57
16	Binding energies of Eu2+ and Eu3+ ions in Î²-Ca2SiO4 doped with europium. Optical Materials, 2013, 35, 2107-2114.	3.6	56
17	Impurity-trapped excitons: Experimental evidence and theoretical concept. Journal of Non-Crystalline Solids, 2008, 354, 4163-4169.	3.1	50
18	Aluminate Red Phosphor in Light-Emitting Diodes: Theoretical Calculations, Charge Varieties, and High-Pressure Luminescence Analysis. ACS Applied Materials & Interfaces, 2017, 9, 23995-24004.	8.0	49

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19	Luminescence properties of different Eu sites in LiMgPO4:Eu2+, Eu3+. Journal of Physics Condensed Matter, 2014, 26, 385401.	1.8	44
20	Multi-Site Cation Control of Ultra-Broadband Near-Infrared Phosphors for Application in Light-Emitting Diodes. Inorganic Chemistry, 2020, 59, 15101-15110.	4.0	42
21	Thermally Stable and Deep Red Luminescence of Sr_{1â€“x}Ba_x[Mg₂Al₂N₄]:Eu²⁺ (x = 0â€“1) Phosphors for Solid State and Agricultural Lighting Applications. ACS Applied Materials & Interfaces, 2020, 12, 23165-23171.	8.0	42
22	Spectroscopic properties of the Ce-doped borate glasses. Optical Materials, 2016, 59, 20-27.	3.6	38
23	3 d 3 system â€“ Comparison of Mn 4+ and Cr 3+ in different lattices. Optical Materials, 2017, 74, 93-100.	3.6	38
24	Surface-Protected High-Efficiency Nanophosphors via Space-Limited Ship-in-a-Bottle Synthesis for Broadband Near-Infrared Mini-Light-Emitting Diodes. ACS Energy Letters, 2021, 6, 659-664.	17.4	38
25	Chemical Control of SrLi(Al_{1â€“x}Ga_x)₃N₄:Eu²⁺ Red Phosphors at Extreme Conditions for Application in Light-Emitting Diodes. Chemistry of Materials, 2019, 31, 4614-4618.	6.7	37
26	High pressure effect on charge transfer transition in Y2O2S:Eu3+. Optical Materials, 2014, 36, 1616-1621.	3.6	35
27	Temperature effect on the emission spectra of narrow band Mn⁴⁺phosphors for application in LEDs. Physical Chemistry Chemical Physics, 2017, 19, 32505-32513.	2.8	33
28	High-Performance NaK₂Li[Li₃SiO₄]₄:Eu Green Phosphor for Backlighting Light-Emitting Diodes. Chemistry of Materials, 2021, 33, 1893-1899.	6.7	31
29	Spectroscopic properties and location of the Ce³⁺ energy levels in Y₃Al₂Ga₃O₁₂ and Y₃Ga₅O₁₂ at ambient and high hydrostatic pressure. Physical Chemistry Chemical Physics, 2016, 18, 6683-6690.	2.8	30
30	Pressure effects on the luminescence properties of CaWO4:Pr3+. Optical Materials, 2012, 34, 2012-2016.	3.6	29
31	Pressure effect on the zero-phonon line emission of Mn4+ in K2SiF6. Journal of Chemical Physics, 2015, 143, 134704.	3.0	29
32	Efficient Luminescence from CsPbBr₃ Nanoparticles Embedded in Cs₄PbBr₆. Journal of Physical Chemistry Letters, 2020, 11, 7637-7642.	4.6	29
33	Influence of charge transfer state on Eu 3+ luminescence in LaAlO 3 , by high pressure spectroscopy. Optical Materials, 2017, 63, 158-166.	3.6	27
34	Solâ€“gel glasses with enhanced luminescence of laser dye Rhodamine B due to plasmonic coupling by copper nanoparticles. Optical Materials, 2014, 36, 1611-1615.	3.6	26
35	Disentangling Red Emission and Compensatory Defects in Sr[LiAl₃N₄]:Ce³⁺ Phosphor. Chemistry of Materials, 2018, 30, 4493-4497.	6.7	26
36	Luminescence of Ca(NbO3)2:Pr3+ at ambient and high hydrostatic pressure. Journal of Luminescence, 2009, 129, 1219-1224.	3.1	25

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37	Energy Level Structure of Bi³⁺ in Zircon and Scheelite Polymorphs of YVO₄. Journal of Physical Chemistry C, 2016, 120, 8261-8265.	3.1	25
38	Effect of Temperature and Pressure on Structural and Optical Properties of Organicâ€“Inorganic Hybrid Manganese Halides. Inorganic Chemistry, 2022, 61, 2595-2602.	4.0	25
39	KMgF3:Eu2+ as a new fluorescence-based pressure sensor for diamond anvil cell experiments. Optical Materials, 2018, 84, 99-102.	3.6	24
40	High pressure evolution of YVO₄:Pr³⁺luminescence. Journal of Physics Condensed Matter, 2009, 21, 105401.	1.8	23
41	High pressure luminescence spectra of CaMoO₄:Ln³⁺(Ln = Pr, Tb). Journal of Physics Condensed Matter, 2013, 25, 105502.	1.8	22
42	Pressure evolution of LiBaF3:Eu2+luminescence. Journal of Physics Condensed Matter, 2009, 21, 235603.	1.8	21
43	Luminescence of CaWO4:Pr3+ and CaWO4:Tb3+ at ambient and high hydrostatic pressures. Radiation Measurements, 2013, 56, 1-5.	1.4	21
44	High pressure and time-resolved luminescence spectra of Ca₃Y₂(SiO₄)₃doped with Eu²⁺and Eu³⁺. Journal of Physics Condensed Matter, 2013, 25, 025603.	1.8	20
45	Luminescence Spectra of Î²-SiAlON/Pr3+ Under High Hydrostatic Pressure. Journal of Physical Chemistry C, 2013, 117, 13181-13186.	3.1	20
46	Chemical and Mechanical Pressure-Induced Photoluminescence Tuning via Structural Evolution and Hydrostatic Pressure. Chemistry of Materials, 2021, 33, 3832-3840.	6.7	20
47	Luminescent GeO2â€“Pbâ€“Bi2O3 glasses co-doped with Tb3+1 and Eu3+: Excitation energy transfer and color chromaticity. Optical Materials, 2014, 36, 633-638.	3.6	18
48	Low and high field sites of Cr3+ ions in calcium tetraborate glasses. Optical Materials, 2016, 59, 120-125.	3.6	18
49	Luminescence of LiBaF3 and KMgF3 doped with Eu2+. Journal of Non-Crystalline Solids, 2010, 356, 1888-1892.	3.1	17
50	Energy levels in CaWO₄:Tb³⁺ at high pressure. Physical Chemistry Chemical Physics, 2015, 17, 32341-32346.	2.8	16
51	Hydrogen-Containing Na3HTi1â€“xMnxF8 Narrow-Band Phosphor for Light-Emitting Diodes. ACS Energy Letters, 2019, 4, 527-533.	17.4	16
52	Spectroscopic properties and location of the Tb³⁺ and Eu³⁺ energy levels in Y₂O₂S under high hydrostatic pressure. Physical Chemistry Chemical Physics, 2016, 18, 22266-22275.	2.8	15
53	White emitting phosphors based on glasses of the type 10AlF3â€“10TiO2â€“39PbOâ€“30H3BO3â€“10SiO2â€“xEu2O3â€“(1â^'x)Tb2O3: An energy transfer study. Journal of Luminescence, 2015, 166, 54-59.	3.3	14
54	Broadband NaK₂Li[Li₃SiO₄]₄:Ce Alkali Lithosilicate Blue Phosphors. Journal of Physical Chemistry Letters, 2020, 11, 6621-6625.	4.6	14

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55	Luminescence and Luminescence Kinetics of Gd₃Ga₅O₁₂Polycrystals Doped with Cr³⁺and Pr³⁺. Acta Physica Polonica A, 2010, 117, 117-121.	0.5	14
56	Photoluminescence enhancement study in a Bi-doped Cs₂AgInCl₆ double perovskite by pressure and temperature-dependent self-trapped exciton emission. Dalton Transactions, 2022, 51, 2026-2032.	3.3	14
57	Pressure and temperature dependence of the emission in BaF2:Eu and SrF2:Eu. Journal of Luminescence, 2008, 128, 715-717.	3.1	13
58	Temperature and pressure dependence of the luminescence of Eu²⁺-doped fluoride crystals Ba_xSr_{1â^'x}F₂(x= 0, 0.3, 0.5 and 1): experiment and model. Journal of Physics Condensed Matter, 2009, 21, 245601.	1.8	13
59	Influence of high hydrostatic pressure on Eu2+-luminescence in KMgF3:Eu2+ crystal. Journal of Luminescence, 2011, 131, 306-309.	3.1	13
60	Spectroscopic properties and energy level location of Eu2+ in Sr2Si5N8 phosphor. Optical Materials, 2014, 37, 734-739.	3.6	13
61	Optical properties of pure and Ce3+ doped gadolinium gallium garnet crystals and epitaxial layers. Journal of Luminescence, 2015, 164, 31-37.	3.1	13
62	Improvement of the Water Resistance of a Narrowâ€Band Redâ€Emitting SrLiAl₃N₄:Eu²⁺ Phosphor Synthesized under High Isostatic Pressure through Coating with an Organosilica Layer. Angewandte Chemie, 2016, 128, 9804-9808.	2.0	13
63	Structural phase transitions and photoluminescence properties of oxonitridosilicate phosphors under high hydrostatic pressure. Scientific Reports, 2016, 6, 34010.	3.3	13
64	Luminescence kinetics in silica gel doped with Tb3+ ions and ZnS:Mn2+ nanocrystals. Journal of Luminescence, 2008, 128, 921-923.	3.1	12
65	Luminescence of Gd₂(WO₄)₃:Ln³⁺at ambient and high hydrostatic pressure. Journal of Physics Condensed Matter, 2012, 24, 485501.	1.8	12
66	Comparison of quenching mechanisms in Gd3Al5â^'xGaxO12:Ce3+ (x = 3 and 5) garnet phosphors by photocurrent excitation spectroscopy. Physical Chemistry Chemical Physics, 2018, 20, 18380-18390.	2.8	12
67	Properties of Charge Carrier Traps in Lu₂O₃:Tb,Hf Ceramic Storage Phosphors Observed by High-Pressure Spectroscopy and Photoconductivity. Journal of Physical Chemistry C, 2020, 124, 20340-20349.	3.1	12
68	High pressure luminescence spectra of CaMoO₄:Pr³⁺. Journal of Physics Condensed Matter, 2012, 24, 215402.	1.8	11
69	New Pr3+ site in Î²-SiAlON red phosphor. Optical Materials, 2013, 35, 2001-2005.	3.6	11
70	Study of persistent luminescence and thermoluminescence in SrSi2N2O2:Eu2+,M3+(M = Ce, Dy, and Nd). Physical Chemistry Chemical Physics, 2020, 22, 17152-17159.	2.8	11
71	Luminescence of Ca(NbO3)2:Pr3+: Pr3+ and self-trapped exciton emission. Radiation Measurements, 2010, 45, 288-291.	1.4	10
72	Pressure evolution of luminescence in Sr Ba1â^'(NbO2)3:Pr3+ (x=1/2 and 1/3). Journal of Luminescence, 2014, 152, 62-65.	3.1	10

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73	Luminescence quenching in KYb(WO4)2-Tb3+: An example of temperature-pressure equivalence. Journal of Luminescence, 2017, 191, 18-21.	3.1	10
74	High pressure and time resolved luminescence spectra of Gd3Ga5O12:Pr3+ crystal. Optical Materials, 2011, 33, 1525-1529.	3.6	9
75	Intensification of luminescence of Europium-EDTA complex in polyvinyl pyrrolidone films by copper nanoparticles. Optical Materials, 2016, 59, 3-7.	3.6	9
76	Control of Luminescence by Tuning of Crystal Symmetry and Local Structure in Mn⁴⁺â€Activated Narrow Band Fluoride Phosphors. Angewandte Chemie, 2018, 130, 1815-1819.	2.0	9
77	High pressure luminescence and time resolved spectra of La2Be2O5:Pr3+. Optical Materials, 2011, 34, 164-168.	3.6	8
78	Pressure-induced phase transition in LiLuF4:Pr3+investigated by an optical technique. Journal of Physics Condensed Matter, 2012, 24, 115502.	1.8	8
79	Optical processes in YVO4:Eu3+across zircon-to-scheelite phase transition. Journal of Luminescence, 2015, 165, 19-22.	3.1	8
80	Luminescence properties of MgF2:Yb2+ at high hydrostatic pressure. Journal of Luminescence, 2016, 169, 788-793.	3.1	8
81	Formation and Near-Infrared Emission of CsPbI₃ Nanoparticles Embedded in Cs₄PbI₆ Crystals. ACS Applied Materials & Interfaces, 2021, 13, 34742-34751.	8.0	8
82	Linking Macro- and Micro-structural Analysis with Luminescence Control in Oxynitride Phosphors for Light-Emitting Diodes. Chemistry of Materials, 2021, 33, 7897-7904.	6.7	8
83	Tb3+ ions in presence of ZnS:Mn2+ nanocrystals immobilized on silica: Energy transfer ZnSâ†'Tb3+ and coordination state of Mn2+ ions. Journal of Luminescence, 2009, 129, 246-250.	3.1	7
84	Impurity trapped exciton states related to rare earth ions in crystals under high hydrostatic pressure. Crystallography Reports, 2013, 58, 139-143.	0.6	7
85	Pressure dependence of the Sr2Si5N8:Eu2+ luminescence. Journal of Luminescence, 2015, 159, 183-187.	3.1	7
86	Experimental and first-principles studies of high-pressure effects on the structural, electronic, and optical properties of semiconductors and lanthanide doped solids. Japanese Journal of Applied Physics, 2017, 56, 05FA02.	1.5	7
87	Thermal stabilization and energy transfer in narrow-band red-emitting Sr[(Mg₂Al₂)_{1â^'y}(Li₂Si₂)_yN₄]:Eu²⁺ Journal of Materials Chemistry C, 2018, 6, 5975-5983.	6.4	7
88	Thermal quenching of Ce3+luminescence in the cuspidine-type oxide nitride compounds Y4Si2â^'xAlxO7+xN2â^'x. Journal of Luminescence, 2018, 193, 125-132.	3.1	7
89	Evolution of the optical properties of chromium doped calcium tetraborate glass under high pressure. Journal of Luminescence, 2016, 177, 111-118.	3.1	6
90	Structural Evolution and Effect of the Neighboring Cation on the Photoluminescence of Sr(LiAl 3) 1â^' x (SiMg 3) x N 4 :Eu 2+ Phosphors. Angewandte Chemie, 2019, 131, 7849-7854.	2.0	6

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91	Pressure-induced luminescence quenching in KY(WO 4) 2 :Pr 3+. Optical Materials, 2017, 74, 41-45.	3.6	5
92	Spectroscopic properties of high-temperature sintered SrS:0.05%Ce³⁺ under high hydrostatic pressure. Physical Chemistry Chemical Physics, 2018, 20, 10266-10274.	2.8	5
93	Tb3+ ions in the presence of ZnS:Mn2+ nanocrystals incorporated into silica: Tb3+ and Mn2+ luminescence kinetics. Optical Materials, 2008, 30, 719-721.	3.6	4
94	Low temperature luminescence of KMgF3:Eu2+ crystal. Optical Materials, 2011, 33, 996-999.	3.6	4
95	Temperature evolution of the luminescence decay of Sr0.33Ba0.67Nb2O6: Pr3+. Journal of Physics Condensed Matter, 2014, 26, 165502.	1.8	4
96	Dopant Concentration Induced Optical Changes in Ca,Eu-Î±-Sialon. Crystals, 2017, 7, 342.	2.2	4
97	New Eu2 +sites in KMgF3:Eu2 +crystal. Journal of Physics Condensed Matter, 2011, 23, 035404.	1.8	3
98	High pressure luminescence of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mstyle mathvariant="normal"><mml:mi>Y V O</mml:mi></mml:mstyle></mml:mrow><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub><mml:mtext>:</mml:mtext><mml:mstyle mathvariant="normal"><mml:mi>Pr</mml:mi></mml:mstyle></mml:mrow><mml:mrow><mml:mn>3</mml:mn><mml:mo>+</mml:mo> Physics Procedia, 2009, 2, 577-585.	1.2	2
99	Time evolution of luminescence of Sr2SiO4:Eu2+. Journal of Physics Condensed Matter, 2013, 25, 425501.	1.8	2
100	Pressure dependence of the emission in CaF₂â€‰:â€‰Yb²⁺. Journal of Physics Condensed Matter, 2015, 27, 305501.	1.8	2
101	Mechanism of the Luminescence Enhancement of SrSi₂N₂O₂:Eu²⁺ Phosphor via Manganese Addition. Journal of Physical Chemistry C, 2022, 126, 5292-5301.	3.1	2
102	Aggregation of Rhodamine 6G in titanium dioxide nanolayers and bulk xerogels. Optical Materials, 2014, 36, 1694-1697.	3.6	1
103	Charge transfer and europium trapped exciton states in Eu³⁺/Eu²⁺ doped phosphors. , 2014, , .		1
104	Dual-emission Eu-doped Ca2â^'xSrxPN3 nitridophosphate phosphors prepared by hot isostatic press. Journal of Materials Chemistry C, 2021, 9, 8158-8162.	5.5	1
105	Reply to the â€˜Comment on â€œSpectroscopic properties and location of the Ce3+ energy levels in Y3Al2Ga3O12 and Y3Ga5O12 at ambient and high hydrostatic pressureâ€â€™ by Y. Wang, M. GÅ‚owacki, M. Berkowski, A. KamiÅ„ska and A. Suchocki, Phys. Chem. Chem. Phys., 2019, 21, DOI: 10.1039/C8CP06154H. Physical Chemistry Chemical Physics, 2019, 21, 2818-2820.	2.8	0
106	High pressure luminescence and time resolved spectra of LiNbO3:Pr3+. Photonics Letters of Poland, 2011, 3, .	0.4	0