Sebastian Mahlik

List of Publications by Year
in descending order

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	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
2	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
3	Mechanism of the Luminescence Enhancement of SrSi₂N₂O₂:Eu²⁺ Phosphor via Manganese Addition. Journal of Physical Chemistry C, 2022, 126, 5292-5301.	3.1	2
4	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
5	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
6	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
7	High-Performance NaK₂Li[Li₃SiO₄]₄:Eu Green Phosphor for Backlighting Light-Emitting Diodes. Chemistry of Materials, 2021, 33, 1893-1899.	6.7	31
8	Chemical and Mechanical Pressure-Induced Photoluminescence Tuning via Structural Evolution and Hydrostatic Pressure. Chemistry of Materials, 2021, 33, 3832-3840.	6.7	20
9	Formation and Near-Infrared Emission of CsPbI₃ Nanoparticles Embedded in Cs₄PbI₆ Crystals. ACS Applied Materials & Interfaces, 2021, 13, 34742-34751.	8.0	8
10	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
11	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
12	Chromium(III)-Doped Fluoride Phosphors with Broadband Infrared Emission for Light-Emitting Diodes. Inorganic Chemistry, 2020, 59, 376-385.	4.0	84
13	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
14	Ultra-high-efficiency near-infrared Ga₂O₃:Cr³⁺ phosphor and controlling of phytochrome. Journal of Materials Chemistry C, 2020, 8, 11013-11017.	5.5	111
15	Broadband NaK₂Li[Li₃SiO₄]₄:Ce Alkali Lithosilicate Blue Phosphors. Journal of Physical Chemistry Letters, 2020, 11, 6621-6625.	4.6	14
16	Efficient Luminescence from CsPbBr₃ Nanoparticles Embedded in Cs₄PbBr₆. Journal of Physical Chemistry Letters, 2020, 11, 7637-7642.	4.6	29
17	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
18	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

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19	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
20	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
21	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
22	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
23	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
24	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
25	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
26	Hydrogen-Containing Na3HTi1â€“xMnxF8 Narrow-Band Phosphor for Light-Emitting Diodes. ACS Energy Letters, 2019, 4, 527-533.	17.4	16
27	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
28	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
29	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
30	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.	5.5	7
31	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
32	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
33	KMgF3:Eu2+ as a new fluorescence-based pressure sensor for diamond anvil cell experiments. Optical Materials, 2018, 84, 99-102.	3.6	24
34	Disentangling Red Emission and Compensatory Defects in Sr[LiAl₃N₄]:Ce³⁺ Phosphor. Chemistry of Materials, 2018, 30, 4493-4497.	6.7	26
35	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
36	High Color Rendering Index of Rb₂GeF₆:Mn⁴⁺ for Light-Emitting Diodes. Chemistry of Materials, 2017, 29, 935-939.	6.7	172

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37	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
38	Luminescence quenching in KYb(WO4)2-Tb3+: An example of temperature-pressure equivalence. Journal of Luminescence, 2017, 191, 18-21.	3.1	10
39	Pressure-induced luminescence quenching in KY(WO 4) 2 :Pr 3+. Optical Materials, 2017, 74, 41-45.	3.6	5
40	3 d 3 system â€“ Comparison of Mn 4+ and Cr 3+ in different lattices. Optical Materials, 2017, 74, 93-100.	3.6	38
41	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
42	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
43	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
44	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
45	Dopant Concentration Induced Optical Changes in Ca,Eu-Î±-Sialon. Crystals, 2017, 7, 342.	2.2	4
46	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
47	Energy Level Structure of Bi³⁺ in Zircon and Scheelite Polymorphs of YVO₄. Journal of Physical Chemistry C, 2016, 120, 8261-8265.	3.1	25
48	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
49	Green Light-Excitable Ce-Doped Nitridomagnesoaluminate Sr[Mg₂Al₂N₄] Phosphor for White Light-Emitting Diodes. Chemistry of Materials, 2016, 28, 6822-6825.	6.7	138
50	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
51	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
52	Structural phase transitions and photoluminescence properties of oxonitridosilicate phosphors under high hydrostatic pressure. Scientific Reports, 2016, 6, 34010.	3.3	13
53	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
54	Spectroscopic properties of the Ce-doped borate glasses. Optical Materials, 2016, 59, 20-27.	3.6	38

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55	Evolution of the optical properties of chromium doped calcium tetraborate glass under high pressure. Journal of Luminescence, 2016, 177, 111-118.	3.1	6
56	Intensification of luminescence of Europium-EDTA complex in polyvinyl pyrrolidone films by copper nanoparticles. Optical Materials, 2016, 59, 3-7.	3.6	9
57	Luminescence properties of MgF2:Yb2+ at high hydrostatic pressure. Journal of Luminescence, 2016, 169, 788-793.	3.1	8
58	Low and high field sites of Cr3+ ions in calcium tetraborate glasses. Optical Materials, 2016, 59, 120-125.	3.6	18
59	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
60	Pressure effect on the zero-phonon line emission of Mn4+ in K2SiF6. Journal of Chemical Physics, 2015, 143, 134704.	3.0	29
61	Energy levels in CaWO₄:Tb³⁺ at high pressure. Physical Chemistry Chemical Physics, 2015, 17, 32341-32346.	2.8	16
62	Pressure dependence of the Sr2Si5N8:Eu2+ luminescence. Journal of Luminescence, 2015, 159, 183-187.	3.1	7
63	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.	3.1	14
64	Optical processes in YVO4:Eu3+across zircon-to-scheelite phase transition. Journal of Luminescence, 2015, 165, 19-22.	3.1	8
65	Pressure dependence of the emission in CaF₂â€‰:â€‰Yb²⁺. Journal of Physics Condensed Matter, 2015, 27, 305501.	1.8	2
66	Optical properties of pure and Ce3+ doped gadolinium gallium garnet crystals and epitaxial layers. Journal of Luminescence, 2015, 164, 31-37.	3.1	13
67	Temperature evolution of the luminescence decay of Sr0.33Ba0.67Nb2O6: Pr3+. Journal of Physics Condensed Matter, 2014, 26, 165502.	1.8	4
68	Aggregation of Rhodamine 6G in titanium dioxide nanolayers and bulk xerogels. Optical Materials, 2014, 36, 1694-1697.	3.6	1
69	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
70	Charge transfer and europium trapped exciton states in Eu³⁺/Eu²⁺ doped phosphors. , 2014, , .		1
71	Spectroscopic properties and energy level location of Eu2+ in Sr2Si5N8 phosphor. Optical Materials, 2014, 37, 734-739.	3.6	13
72	Luminescence properties of different Eu sites in LiMgPO4:Eu2+, Eu3+. Journal of Physics Condensed Matter, 2014, 26, 385401.	1.8	44

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73	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
74	High pressure effect on charge transfer transition in Y2O2S:Eu3+. Optical Materials, 2014, 36, 1616-1621.	3.6	35
75	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
76	Binding energies of Eu2+ and Eu3+ ions in Î²-Ca2SiO4 doped with europium. Optical Materials, 2013, 35, 2107-2114.	3.6	56
77	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
78	Impurity trapped exciton states related to rare earth ions in crystals under high hydrostatic pressure. Crystallography Reports, 2013, 58, 139-143.	0.6	7
79	Luminescence Spectra of Î²-SiAlON/Pr3+ Under High Hydrostatic Pressure. Journal of Physical Chemistry C, 2013, 117, 13181-13186.	3.1	20
80	Luminescence of CaWO4:Pr3+ and CaWO4:Tb3+ at ambient and high hydrostatic pressures. Radiation Measurements, 2013, 56, 1-5.	1.4	21
81	High pressure luminescence spectra of CaMoO₄:Ln³⁺(Ln = Pr, Tb). Journal of Physics Condensed Matter, 2013, 25, 105502.	1.8	22
82	New Pr3+ site in Î²-SiAlON red phosphor. Optical Materials, 2013, 35, 2001-2005.	3.6	11
83	Time evolution of luminescence of Sr2SiO4:Eu2+. Journal of Physics Condensed Matter, 2013, 25, 425501.	1.8	2
84	Luminescence of Gd₂(WO₄)₃:Ln³⁺at ambient and high hydrostatic pressure. Journal of Physics Condensed Matter, 2012, 24, 485501.	1.8	12
85	Pressure effects on the luminescence properties of CaWO4:Pr3+. Optical Materials, 2012, 34, 2012-2016.	3.6	29
86	Pressure-induced phase transition in LiLuF4:Pr3+investigated by an optical technique. Journal of Physics Condensed Matter, 2012, 24, 115502.	1.8	8
87	High pressure luminescence spectra of CaMoO₄:Pr³⁺. Journal of Physics Condensed Matter, 2012, 24, 215402.	1.8	11
88	High pressure luminescence and time resolved spectra of La2Be2O5:Pr3+. Optical Materials, 2011, 34, 164-168.	3.6	8
89	High pressure and time resolved luminescence spectra of Gd3Ga5O12:Pr3+ crystal. Optical Materials, 2011, 33, 1525-1529.	3.6	9
90	Low temperature luminescence of KMgF3:Eu2+ crystal. Optical Materials, 2011, 33, 996-999.	3.6	4

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91	Influence of high hydrostatic pressure on Eu2+-luminescence in KMgF3:Eu2+ crystal. Journal of Luminescence, 2011, 131, 306-309.	3.1	13
92	New Eu2 +sites in KMgF3:Eu2 +crystal. Journal of Physics Condensed Matter, 2011, 23, 035404.	1.8	3
93	High pressure luminescence and time resolved spectra of LiNbO3:Pr3+. Photonics Letters of Poland, 2011, 3, .	0.4	0
94	Luminescence of Ca(NbO3)2:Pr3+: Pr3+ and self-trapped exciton emission. Radiation Measurements, 2010, 45, 288-291.	1.4	10
95	Luminescence of LiBaF3 and KMgF3 doped with Eu2+. Journal of Non-Crystalline Solids, 2010, 356, 1888-1892.	3.1	17
96	Luminescence and Luminescence Kinetics of Gd₃Ga₅O₁₂Polycrystals Doped with Cr³⁺and Pr³⁺. Acta Physica Polonica A, 2010, 117, 117-121.	0.5	14
97	High pressure evolution of YVO₄:Pr³⁺luminescence. Journal of Physics Condensed Matter, 2009, 21, 105401.	1.8	23
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	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
100	Luminescence of Ca(NbO3)2:Pr3+ at ambient and high hydrostatic pressure. Journal of Luminescence, 2009, 129, 1219-1224.	3.1	25
101	Pressure evolution of LiBaF3:Eu2+luminescence. Journal of Physics Condensed Matter, 2009, 21, 235603.	1.8	21
102	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
103	Pressure and temperature dependence of the emission in BaF2:Eu and SrF2:Eu. Journal of Luminescence, 2008, 128, 715-717.	3.1	13
104	Luminescence kinetics in silica gel doped with Tb3+ ions and ZnS:Mn2+ nanocrystals. Journal of Luminescence, 2008, 128, 921-923.	3.1	12
105	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
106	Impurity-trapped excitons: Experimental evidence and theoretical concept. Journal of Non-Crystalline Solids, 2008, 354, 4163-4169.	3.1	50