Miroslaw Batentschuk

List of Publications by Year
in descending order

55	2,419	394421 19	197818 49
papers	citations	h-index	g-index

57	57	57	4426
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rare-Earth Ion-Based Photon Up-Conversion for Transmission-Loss Reduction in Solar Cells. , 2022, , 241-267.		1
2	Micropowder Ca2YMgScSi3O12:Ce Silicate Garnet as an Efficient Light Converter for White LEDs. Materials, 2022, 15, 3942.	2.9	6
3	â€œGreenâ€•synthesis of highly luminescent lead-free Cs₂Ag_xNa_{1â^'x}Bi_yIn_{1â^'y}Cl₆ perovskites. Journal of Materials Chemistry C, 2022, 10, 9938-9944.	5.5	13
4	High-Throughput Time-Resolved Photoluminescence Study of Composition- and Size-Selected Aqueous Agâ€“Inâ€“S Quantum Dots. Journal of Physical Chemistry C, 2021, 125, 12185-12197.	3.1	13
5	Crystallization and Investigation of the Structural and Optical Properties of Ce3+-Doped Y3â^'xCaxAl5â^'ySiyO12 Single Crystalline Film Phosphors. Crystals, 2021, 11, 788.	2.2	5
6	Highâ€Throughput Robotic Synthesis and Photoluminescence Characterization of Aqueous Multinary Copperâ€“Silver Indium Chalcogenide Quantum Dots. Particle and Particle Systems Characterization, 2021, 38, 2100169.	2.3	12
7	Spontaneous alloying of ultrasmall non-stoichiometric Agâ€“Inâ€“S and Cuâ€“Inâ€“S quantum dots in aqueous colloidal solutions. RSC Advances, 2021, 11, 21145-21152.	3.6	5
8	Effect of water vapor content during the solid state synthesis of manganese-doped magnesium fluoro-germanate phosphor on its chemistry and photoluminescent properties. Optical Materials, 2020, 99, 109572.	3.6	2
9	Micro-powder Ca3Sc2Si3O12:Ce silicate garnets as efficient light converters for WLEDs. Optical Materials, 2020, 107, 109978.	3.6	12
10	Characterization of the phosphor (Sr,Ca)SiAlN3: Eu2+ for temperature sensing. Journal of Luminescence, 2020, 226, 117487.	3.1	10
11	Luminescent Properties of Nanopowder and Singleâ€Crystalline Films of TbAG:Ce Garnet. Physica Status Solidi (B): Basic Research, 2020, 257, 1900495.	1.5	4
12	Novel two-dimensional phosphor thermography by decay-time method using a low frame-rate CMOS camera. Optics and Lasers in Engineering, 2020, 128, 106010.	3.8	4
13	Looking beyond the Surface: The Band Gap of Bulk Methylammonium Lead Iodide. Nano Letters, 2020, 20, 3090-3097.	9.1	16
14	(Gd,Lu)AlO₃:Dy³⁺ and (Gd,Lu)₃Al₅O₁₂:Dy³⁺ as high-temperature thermographic phosphors. Measurement Science and Technology, 2019, 30, 034001.	2.6	12
15	Luminescence properties of Yb3+-Tb3+ co-doped amorphous silicon oxycarbide thin films. Optical Materials, 2019, 92, 16-21.	3.6	2
16	Synthesis and photoluminescent properties of the Dy3+ doped YSO as a high-temperature thermographic phosphor. Journal of Luminescence, 2018, 197, 23-30.	3.1	34
17	Optimization of synthesis and compositional parameters of magnesium germanate and fluoro-germanate thermographic phosphors. Journal of Alloys and Compounds, 2018, 734, 29-35.	5.5	10
18	Improved charge carrier dynamics in polymer/perovskite nanocrystal based hybrid ternary solar cells. Physical Chemistry Chemical Physics, 2018, 20, 23674-23683.	2.8	13

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19	Structural fluctuations cause spin-split states in tetragonal (CH ₃ NH ₃)PbI ₃ as evidenced by the circular photogalvanic effect. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9509-9514.	7.1	106
20	New silicate based thermographic phosphors Ca3Sc2Si3O12:Dy, Ca3Sc2Si3O12:Dy,Ce and their photoluminescence properties. Journal of Luminescence, 2018, 202, 13-19.	3.1	16
21	Temperature-dependent luminescence characteristics of Dy3+ doped in various crystalline hosts. Journal of Luminescence, 2018, 204, 64-74.	3.1	34
22	Temperature-dependent optical spectra of single-crystal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mo>(</mml:mo><mml:mrow><mml:msub><mml:mi>CH</mml:mi><mml:n cleaved in ultrahigh vacuum. Physical Review B, 2017, 95, .	3.7	40
23	High-temperature thermographic phosphor mixture YAP/YAG:Dy3+ and its photoluminescence properties. Journal of Luminescence, 2017, 188, 582-588.	3.1	31
24	Brightly Luminescent and Color-Tunable Formamidinium Lead Halide Perovskite FAPbX₃ (X) Tj ETQq0 0 0 rgBT /Overlock 10	9.1	356
25	Ligand-assisted thickness tailoring of highly luminescent colloidal CH₃NH₃PbX₃ (X = Br and I) perovskite nanoplatelets. Chemical Communications, 2017, 53, 244-247.	4.1	99
26	Key parameters of efficient phosphor-filled luminescent down-shifting layers for photovoltaics. Journal of Optics (United Kingdom), 2017, 19, 095901.	2.2	2
27	Influence of codoping on the luminescence properties of YAG:Dy for high temperature phosphor thermometry. Journal of Luminescence, 2017, 182, 200-207.	3.1	40
28	Determination of the complex refractive index of powder phosphors. Optical Materials Express, 2017, 7, 2943.	3.0	8
29	Computational optimization and solution-processing of thick and efficient luminescent down-shifting layers for photovoltaics. Proceedings of SPIE, 2016, , .	0.8	2
30	Effective Ligand Engineering of the Cu₂ZnSnS₄ Nanocrystal Surface for Increasing Hole Transport Efficiency in Perovskite Solar Cells. Advanced Functional Materials, 2016, 26, 8300-8306.	14.9	72
31	Giant Rashba Splitting in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>CH</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi>NH</mml:mi><mml:mn Perovskite. Physical Review Letters, 2016, 117, 126401.	7.8	269
32	Deciphering the Role of Impurities in Methylammonium Iodide and Their Impact on the Performance of Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600593.	3.7	31
33	Photoluminescence properties of thermographic phosphors YAG:Dy and YAG:Dy, Er doped with boron and nitrogen. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	19
34	Optimization of Solutionâ€Processed Luminescent Downâ€Shifting Layers for Photovoltaics by Customizing Organic Dye Based Thick Films. Energy Technology, 2016, 4, 385-392.	3.8	16
35	A New Crystal Phase Molybdate Yb₂Mo₄O₁₅: The Synthesis and Upconversion Properties. Particle and Particle Systems Characterization, 2015, 32, 340-346.	2.3	11
36	Improved properties of phosphor-filled luminescent down-shifting layers: reduced scattering, optical model, and optimization for PV application. Proceedings of SPIE, 2015, , .	0.8	1

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37	Sub-bandgap photon harvesting for organic solar cells via integrating up-conversion nanophosphors. Organic Electronics, 2015, 19, 113-119.	2.6	13
38	Highly transmissive luminescent down-shifting layers filled with phosphor particles for photovoltaics. Optical Materials Express, 2015, 5, 1296.	3.0	20
39	Highly transmissive luminescent down-shifting layers filled with phosphor particles for photovoltaics: publisherâ€™s note. Optical Materials Express, 2015, 5, 1806.	3.0	1
40	Polymer-assisted solâ€“gel process for the preparation of photostimulable core/shell structured SiO 2 /Zn 2 SiO 4 :Mn 2+ particles. Materials Chemistry and Physics, 2014, 148, 1055-1063.	4.0	23
41	Solar spectral conversion for improving the photosynthetic activity in algae reactors. Nature Communications, 2013, 4, 2047.	12.8	155
42	Photoluminescent and storage properties of photostimulable core/shell type silicate nanoparticles. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 180-184.	0.8	4
43	Enhanced photosynthetic activity in Spinacia oleracea by spectral modification with a photoluminescent light converting material. Optics Express, 2013, 21, A909.	3.4	18
44	Enhanced photosynthetic activity in Spinacia oleracea by spectral modification with a photoluminescent light converting material. Optics Express, 2013, 21, 909.	3.4	7
45	Scintillators Based on ${hbox{CdWO}}_{4}$ and ${hbox{CdWO}}_{4}!!:!!{hbox{Bi}}$ Single Crystalline Films. IEEE Transactions on Nuclear Science, 2012, 59, 2281-2285.	2.0	18
46	UV emitting single crystalline film scintillators grown by LPE method: current status and perspective. Materials Research Society Symposia Proceedings, 2011, 1341, 1.	0.1	0
47	Preparation of luminescent inorganic core/shell-structured nanoparticles. Materials Research Society Symposia Proceedings, 2011, 1342, 3.	0.1	0
48	Rareâ€Earth Ion Doped Upâ€Conversion Materials for Photovoltaic Applications. Advanced Materials, 2011, 23, 2675-2680.	21.0	465
49	Luminescent silicate coreâ€“shell nanoparticles: Synthesis, functionalization, optical, and structural properties. Journal of Colloid and Interface Science, 2011, 358, 32-38.	9.4	14
50	Red-emitting Ca1-xSrxS:Eu2+ Phosphors as Light Converters for Plant-growth Applications. Materials Research Society Symposia Proceedings, 2011, 1342, 15.	0.1	2
51	Photostimulable Fluorescent Nanoparticles for Biological Imaging. Materials Research Society Symposia Proceedings, 2011, 1342, 21.	0.1	1
52	Quantum yield of Eu2+ emission in (Ca1â^'xSrx)S:Eu light emitting diode converter at 20â€“420K. Radiation Measurements, 2010, 45, 350-352.	1.4	32
53	Synthesis, crystal structures and luminescence properties of the Eu3+-doped yttrium oxotellurates(IV) Y2Te4O11 and Y2Te5O13. Journal of Solid State Chemistry, 2008, 181, 2783-2788.	2.9	20
54	Silicaâ€Coated InP/ZnS Nanocrystals as Converter Material in White LEDs. Advanced Materials, 2008, 20, 4068-4073.	21.0	284

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55	Spatially resolved luminescence properties of ZnO tetrapods. Journal of Materials Science, 2007, 42, 6325-6330.	3.7	15