Miroslaw Batentschuk

List of Publications by Year
in descending order

55 papers	2,419 citations	394421 19 h-index	197818 49 g-index
57 all docs	57 docs citations	57 times ranked	4426 citing authors

#	Article	IF	Citations
1	Rareâ€Earth Ion Doped Upâ€Conversion Materials for Photovoltaic Applications. Advanced Materials, 2011, 23, 2675-2680.	21.0	465
2	Brightly Luminescent and Color-Tunable Formamidinium Lead Halide Perovskite FAPbX₃ (X) Tj ETQq0 0 0 rgBT /Overlock 10	9.1	356
3	Silicaâ€Coated InP/ZnS Nanocrystals as Converter Material in White LEDs. Advanced Materials, 2008, 20, 4068-4073.	21.0	284
4	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:m Perovskite. Physical Review Letters, 2016, 117, 126401.	7.8	269
5	Solar spectral conversion for improving the photosynthetic activity in algae reactors. Nature Communications, 2013, 4, 2047.	12.8	155
6	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
7	Ligand-assisted thickness tailoring of highly luminescent colloidal CH₃NH₃PbX₃ (X = Br and I) perovskite nanoplatelets. Chemical Communications, 2017, 53, 244-247.	4.1	99
8	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
9	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: cleaved in ultrahigh vacuum. Physical Review B, 2017, 95, .	3.2	40
10	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
11	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
12	Temperature-dependent luminescence characteristics of Dy3+ doped in various crystalline hosts. Journal of Luminescence, 2018, 204, 64-74.	3.1	34
13	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
14	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
15	High-temperature thermographic phosphor mixture YAP/YAG:Dy3+ and its photoluminescence properties. Journal of Luminescence, 2017, 188, 582-588.	3.1	31
16	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
17	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
18	Highly transmissive luminescent down-shifting layers filled with phosphor particles for photovoltaics. Optical Materials Express, 2015, 5, 1296.	3.0	20

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19	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
20	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
21	Enhanced photosynthetic activity in Spinacia oleracea by spectral modification with a photoluminescent light converting material. Optics Express, 2013, 21, A909.	3.4	18
22	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
23	New silicate based thermographic phosphors Ca3Sc2Si3O12:Dy, Ca3Sc2Si3O12:Dy,Ce and their photoluminescence properties. Journal of Luminescence, 2018, 202, 13-19.	3.1	16
24	Looking beyond the Surface: The Band Gap of Bulk Methylammonium Lead Iodide. Nano Letters, 2020, 20, 3090-3097.	9.1	16
25	Spatially resolved luminescence properties of ZnO tetrapods. Journal of Materials Science, 2007, 42, 6325-6330.	3.7	15
26	Luminescent silicate coreâ€"shell nanoparticles: Synthesis, functionalization, optical, and structural properties. Journal of Colloid and Interface Science, 2011, 358, 32-38.	9.4	14
27	Sub-bandgap photon harvesting for organic solar cells via integrating up-conversion nanophosphors. Organic Electronics, 2015, 19, 113-119.	2.6	13
28	Improved charge carrier dynamics in polymer/perovskite nanocrystal based hybrid ternary solar cells. Physical Chemistry Chemical Physics, 2018, 20, 23674-23683.	2.8	13
29	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
30	â€œGreenâ€• synthesis of highly luminescent lead-free Cs₂Ag_{<i>x</i>}Na_{1â^'<i>x</i>}Bi_{<i>y</i>}In_{1â^'<i>y</i>}Cl₆ perovskites. Journal of Materials Chemistry C, 2022, 10, 9938-9944.	5.5	13
31	(Gd,Lu)AlO₃:Dy³⁺ and (Gd,Lu)₃Al₅O₁₂:Dy³⁺ as high-temperature thermographic phosphors. Measurement Science and Technology, 2019, 30, 034001.	2.6	12
32	Micro-powder Ca3Sc2Si3O12:Ce silicate garnets as efficient light converters for WLEDs. Optical Materials, 2020, 107, 109978.	3.6	12
33	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
34	A New Crystal Phase Molybdate Yb₂Mo₄O₁₅: The Synthesis and Upconversion Properties. Particle and Particle Systems Characterization, 2015, 32, 340-346.	2.3	11
35	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
36	Characterization of the phosphor (Sr,Ca)SiAlN3: Eu2+ for temperature sensing. Journal of Luminescence, 2020, 226, 117487.	3.1	10

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37	Determination of the complex refractive index of powder phosphors. Optical Materials Express, 2017, 7, 2943.	3.0	8
38	Enhanced photosynthetic activity in Spinacia oleracea by spectral modification with a photoluminescent light converting material. Optics Express, 2013, 21, 909.	3.4	7
39	Micropowder Ca2YMgScSi3O12:Ce Silicate Garnet as an Efficient Light Converter for White LEDs. Materials, 2022, 15, 3942.	2.9	6
40	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
41	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
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	Luminescent Properties of Nanopowder and Singleâ€Crystalline Films of TbAG:Ce Garnet. Physica Status Solidi (B): Basic Research, 2020, 257, 1900495.	1.5	4
44	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
45	Red-emitting Ca1-xSrxS:Eu2+ Phosphors as Light Converters for Plant-growth Applications. Materials Research Society Symposia Proceedings, 2011, 1342, 15.	0.1	2
46	Computational optimization and solution-processing of thick and efficient luminescent down-shifting layers for photovoltaics. Proceedings of SPIE, 2016, , .	0.8	2
47	Key parameters of efficient phosphor-filled luminescent down-shifting layers for photovoltaics. Journal of Optics (United Kingdom), 2017, 19, 095901.	2.2	2
48	Luminescence properties of Yb3+-Tb3+ co-doped amorphous silicon oxycarbide thin films. Optical Materials, 2019, 92, 16-21.	3.6	2
49	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
50	Photostimulable Fluorescent Nanoparticles for Biological Imaging. Materials Research Society Symposia Proceedings, 2011, 1342, 21.	0.1	1
51	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
52	Highly transmissive luminescent down-shifting layers filled with phosphor particles for photovoltaics: publisherâ€™s note. Optical Materials Express, 2015, 5, 1806.	3.0	1
53	Rare-Earth Ion-Based Photon Up-Conversion for Transmission-Loss Reduction in Solar Cells. , 2022, , 241-267.		1
54	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

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55	Preparation of luminescent inorganic core/shell-structured nanoparticles. Materials Research Society Symposia Proceedings, 2011, 1342, 3.	0.1	0