Marcin Runowski

List of Publications by Year
in descending order

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84	3,124	117453	174990
papers	citations	34	52
		h-index	g-index

85	85	85	1880
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multifunctional Optical Sensors for Nanomanometry and Nanothermometry: High-Pressure and High-Temperature Upconversion Luminescence of Lanthanide-Doped Phosphatesâ€"LaPO₄/YPO₄:Yb³⁺â€"Tm³⁺. ACS Applied Materials & Interfaces, 2018, 10, 17269-17279.	4.0	236
2	Upconverting Lanthanide Fluoride Core@Shell Nanorods for Luminescent Thermometry in the First and Second Biological Windows: Î²-NaYF₄:Yb³⁺â€" Er³⁺@SiO₂ Temperature Sensor. ACS Applied Materials & Interfaces, 2019, 11, 13389-13396.	4.0	178
3	Luminescent Nanothermometer Operating at Very High Temperatureâ€"Sensing up to 1000 K with Upconverting Nanoparticles (Yb³⁺/Tm³⁺). ACS Applied Materials & Interfaces, 2020, 12, 43933-43941.	4.0	130
4	Lifetime nanomanometry â€" high-pressure luminescence of up-converting lanthanide nanocrystals â€" SrF₂:Yb³⁺,Er³⁺. Nanoscale, 2017, 9, 16030-16037.	2.8	114
5	Optical Vacuum Sensor Based on Lanthanide Upconversionâ€"Luminescence Thermometry as a Tool for Ultralow Pressure Sensing. Advanced Materials Technologies, 2020, 5, 1901091.	3.0	102
6	Upconverting lanthanide doped fluoride NaLuF4:Yb3+-Er3+-Ho3+ - optical sensor for multi-range fluorescence intensity ratio (FIR) thermometry in visible and NIR regions. Journal of Luminescence, 2018, 201, 104-109.	1.5	91
7	Optical Pressure Sensor Based on the Emission and Excitation Band Width (fwhm) and Luminescence Shift of Ce³⁺-Doped Fluorapatiteâ€"High-Pressure Sensing. ACS Applied Materials & Interfaces, 2019, 11, 4131-4138.	4.0	88
8	Sr₂LuF₇:Yb³⁺â€"Ho³⁺â€"Er³⁺ Upconverting Nanoparticles as Luminescent Thermometers in the First, Second, and Third Biological Windows. ACS Applied Nano Materials, 2020, 3, 6406-6415.	2.4	80
9	Lanthanide Upconverted Luminescence for Simultaneous Contactless Optical Thermometry and Manometryâ€"Sensing under Extreme Conditions of Pressure and Temperature. ACS Applied Materials & Interfaces, 2020, 12, 40475-40485.	4.0	77
10	Influence of Matrix on the Luminescent and Structural Properties of Glycerine-Capped, Tb³⁺-Doped Fluoride Nanocrystals. Journal of Physical Chemistry C, 2012, 116, 17188-17196.	1.5	75
11	Highly-efficient double perovskite Mn4+-activated Gd2ZnTiO6 phosphors: A bifunctional optical sensing platform for luminescence thermometry and manometry. Chemical Engineering Journal, 2022, 446, 136839.	6.6	68
12	Praseodymium doped YF3:Pr3+ nanoparticles as optical thermometer based on luminescence intensity ratio (LIR) â€" Studies in visible and NIR range. Journal of Luminescence, 2019, 214, 116571.	1.5	65
13	Pressure-triggered enormous redshift and enhanced emission in Ca2Gd8Si6O26:Ce3+ phosphors: Ultrasensitive, thermally-stable and ultrafast response pressure monitoring. Chemical Engineering Journal, 2022, 443, 136414.	6.6	58
14	Optical pressure sensing in vacuum and high-pressure ranges using lanthanide-based luminescent thermometerâ€"manometer. Journal of Materials Chemistry C, 2021, 9, 4643-4651.	2.7	56
15	Preparation of Biocompatible, Luminescent-Plasmonic Core/Shell Nanomaterials Based on Lanthanide and Gold Nanoparticles Exhibiting SERS Effects. Journal of Physical Chemistry C, 2016, 120, 23788-23798.	1.5	53
16	Eu³⁺and Tb³⁺doped LaPO₄nanorods, modified with a luminescent organic compound, exhibiting tunable multicolour emission. RSC Advances, 2014, 4, 46305-46312.	1.7	50
17	Effects of Dopant Addition on Lattice and Luminescence Intensity Parameters of Eu(III)-Doped Lanthanum Orthovanadate. Journal of Physical Chemistry C, 2016, 120, 28497-28508.	1.5	50
18	Facile synthesis, structural and spectroscopic properties of GdF3:Ce3+, Ln3+ (Ln3+=Sm3+, Eu3+, Tb3+,) Tj ETQq0 0 0 rgBT /Overlock 10	1.5	48

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19	Optical pressure nano-sensor based on lanthanide doped SrB2O4:Sm2+ luminescence â€“ Novel high-pressure nanomanometer. Sensors and Actuators B: Chemical, 2018, 273, 585-591.	4.0	48
20	Preparation and photophysical properties of luminescent nanoparticles based on lanthanide doped fluorides (LaF3:Ce3+, Gd3+, Eu3+), obtained in the presence of different surfactants. Journal of Alloys and Compounds, 2014, 597, 63-71.	2.8	47
21	Dual-center thermochromic Bi2MoO6:Yb3+, Er3+, Tm3+ phosphors for ultrasensitive luminescence thermometry. Journal of Alloys and Compounds, 2022, 890, 161830.	2.8	47
22	Structural, spectroscopic and cytotoxicity studies of TbF3@CeF3 and TbF3@CeF3@SiO2 nanocrystals. Journal of Nanoparticle Research, 2013, 15, 1958.	0.8	46
23	Synthesis and Organic Surface Modification of Luminescent, Lanthanide-Doped Core/Shell Nanomaterials (LnF₃@SiO₂@NH₂@Organic Acid) for Potential Bioapplications: Spectroscopic, Structural, and in Vitro Cytotoxicity Evaluation. Langmuir, 2014, 30, 9533-9543.	1.6	46
24	Core/shell-type nanorods of Tb3+-doped LaPO4, modified with amine groups, revealing reduced cytotoxicity. Journal of Nanoparticle Research, 2013, 15, 2068.	0.8	45
25	Spectroscopic, structural and in vitro cytotoxicity evaluation of luminescent, lanthanide doped core@shell nanomaterials GdVO4:Eu3+5%@SiO2@NH2. Journal of Colloid and Interface Science, 2016, 481, 245-255.	5.0	45
26	Preparation, crystal structure and luminescence properties of a novel single-phase red emitting phosphor CaSr₂(PO₄)₂:Sm³⁺,Li⁺. RSC Advances, 2019, 9, 4834-4842.	1.7	44
27	Synthesis of lanthanide doped CeF 3 :Gd 3+ , Sm 3+ nanoparticles, exhibiting altered luminescence after hydrothermal post-treatment. Journal of Alloys and Compounds, 2016, 661, 182-189.	2.8	40
28	Tm²⁺ Activated SrB₄O₇ Bifunctional Sensor of Temperature and Pressureâ€"Highly Sensitive, Multiâ€Parameter Luminescence Thermometry and Manometry. Advanced Optical Materials, 2021, 9, 2101507.	3.6	40
29	Structural, morphological and spectroscopic properties of Eu3+-doped rare earth fluorides synthesized by the hydrothermalmethod. Journal of Solid State Chemistry, 2013, 200, 76-83.	1.4	39
30	UV-Vis-NIR absorption spectra of lanthanide oxides and fluorides. Dalton Transactions, 2020, 49, 2129-2137.	1.6	39
31	Synthesis, characterization, and cytotoxicity in human erythrocytes of multifunctional, magnetic, and luminescent nanocrystalline rare earth fluorides. Journal of Nanoparticle Research, 2015, 17, 399.	0.8	38
32	Er3+, Yb3+ co-doped Sr3(PO4)2 phosphors: A ratiometric luminescence thermometer based on Stark levels with tunable sensitivity. Journal of Luminescence, 2020, 227, 117517.	1.5	37
33	Nonlinear Optical Thermometryâ€"A Novel Temperature Sensing Strategy via Second Harmonic Generation (SHG) and Upconversion Luminescence in BaTiO₃:Ho³⁺,Yb³⁺ Perovskite. Advanced Optical Materials, 2021, 9, 2100386.	3.6	37
34	Modification of cellulose fibers with inorganic luminescent nanoparticles based on lanthanide(III) ions. Carbohydrate Polymers, 2019, 206, 742-748.	5.1	36
35	Huge enhancement of Sm²⁺ emission via Eu²⁺ energy transfer in a SrB₄O₇ pressure sensor. Journal of Materials Chemistry C, 2020, 8, 4810-4817.	2.7	36
36	A novel reddish-orange fluorapatite phosphor, La6-Ba4(SiO4)6F2: xSm3+ - Structure, luminescence and energy transfer properties. Journal of Alloys and Compounds, 2018, 757, 79-86.	2.8	35

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37	Supersensitive Ratiometric Thermometry and Manometry Based on Dualâ€Emitting Centers in Eu²⁺/Sm²⁺â€Doped Strontium Tetraborate Phosphors. Advanced Optical Materials, 2022, 10, .	3.6	35
38	Emission color tuning and phase transition determination based on high-pressure up-conversion luminescence in YVO4: Yb3+, Er3+ nanoparticles. Journal of Luminescence, 2019, 209, 321-327.	1.5	34
39	Magnetic and luminescent hybrid nanomaterial based on Fe3O4 nanocrystals and GdPO4:Eu3+ nanoneedles. Journal of Nanoparticle Research, 2012, 14, 1188.	0.8	33
40	Improving temperature resolution of luminescent nanothermometers working in the near-infrared range using non-thermally coupled levels of Yb3+ & Tm3+. Journal of Luminescence, 2020, 228, 117643.	1.5	32
41	Synthesis, surface modification/decoration of luminescentâ€“magnetic core/shell nanomaterials, based on the lanthanide doped fluorides (Fe 3 O 4 /SiO 2 /NH 2 /PAA/LnF 3). Journal of Luminescence, 2016, 170, 484-490.	1.5	31
42	Improving performance of luminescent nanothermometers based on non-thermally and thermally coupled levels of lanthanides by modulating laser power. Nanoscale, 2021, 13, 14139-14146.	2.8	31
43	Color-tunable up-conversion emission of luminescent-plasmonic, core/shell nanomaterials â€“ KY 3 F 10 :Yb 3+ ,Tm 3+ /SiO 2 -NH 2 /Au. Journal of Luminescence, 2017, 186, 199-204.	1.5	30
44	Gold nanorods as a high-pressure sensor of phase transitions and refractive-index gauge. Nanoscale, 2019, 11, 8718-8726.	2.8	29
45	Luminescentâ€“Magnetic Cellulose Fibers, Modified with Lanthanide-Doped Core/Shell Nanostructures. ACS Omega, 2018, 3, 10383-10390.	1.6	25
46	Luminescent-plasmonic, lanthanide-doped core/shell nanomaterials modified with Au nanorods â€“ Up-conversion luminescence tuning and morphology transformation after NIR laser irradiation. Journal of Alloys and Compounds, 2018, 762, 621-630.	2.8	25
47	Luminescent Nd³⁺â€Based Microresonators Working as Optical Vacuum Sensors. Advanced Optical Materials, 2020, 8, 2000678.	3.6	25
48	Optical Sensing by Metamaterials and Metasurfaces: From Physics to Biomolecule Detection. Advanced Optical Materials, 2022, 10, .	3.6	24
49	Nanosized complex fluorides based on Eu3+ doped Sr2LnF7 (Ln=La, Gd). Journal of Rare Earths, 2014, 32, 242-247.	2.5	23
50	Eu²⁺ emission from thermally coupled levels â€“ new frontiers for ultrasensitive luminescence thermometry. Journal of Materials Chemistry C, 2022, 10, 1220-1227.	2.7	23
51	Luminescent-plasmonic effects in GdPO 4 :Eu 3+ nanorods covered with silver nanoparticles. Journal of Luminescence, 2017, 188, 24-30.	1.5	20
52	Pressure and temperature optical sensors: luminescence of lanthanide-doped nanomaterials for contactless nanomanometry and nanothermometry. , 2020, , 227-273.		20
53	Bifunctional luminescent and magnetic core/shell type nanostructures Fe3O4@CeF3:Tb3+/SiO2. Journal of Rare Earths, 2011, 29, 1117-1122.	2.5	19
54	Synthesis, photophysical analysis, and in vitro cytotoxicity assessment of the multifunctional (magnetic and luminescent) core@shell nanomaterial based on lanthanide-doped orthovanadates. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	18

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55	Bifunctional magnetic-upconverting luminescent cellulose fibers for anticounterfeiting purposes. Journal of Alloys and Compounds, 2020, 829, 154456.	2.8	17
56	NIR emission of lanthanides for ultrasensitive luminescence manometryâ€"Er³⁺-activated optical sensor of high pressure. Dalton Transactions, 2021, 50, 14864-14871.	1.6	16
57	Upconversion luminescence in cellulose composites (fibres and paper) modified with lanthanide-doped SrF₂ nanoparticles. Journal of Materials Chemistry C, 2020, 8, 11922-11928.	2.7	15
58	Synthesis, structural and spectroscopic studies on GdBO3:Yb3+/Tb3+@SiO2 core-shell nanostructures. Journal of Rare Earths, 2015, 33, 1148-1154.	2.5	14
59	Influence of boric acid/Sr2+ ratio on the structure and luminescence properties (colour tuning) of nano-sized, complex strontium borates doped with Sm2+ and Sm3+ ions. Optical Materials, 2018, 83, 245-251.	1.7	14
60	Luminescent-plasmonic coreâ€"shell microspheres, doped with Nd3+ and modified with gold nanoparticles, exhibiting whispering gallery modes and SERS activity. Journal of Rare Earths, 2019, 37, 1152-1156.	2.5	14
61	Multiple ratiometric nanothermometry operating with Stark thermally and non-thermally-coupled levels in upconverting Y2â^'xMoO6:xEr3+ nanoparticles. Journal of Alloys and Compounds, 2021, 864, 158891.	2.8	14
62	Boltzmann vs. non-Boltzmann (non-linear) thermometry - Yb3+-Er3+ activated dual-mode thermometer and phase transition sensor via second harmonic generation. Journal of Alloys and Compounds, 2022, 906, 164329.	2.8	14
63	Pressure-driven configurational crossover between 4f7 and 4f65d1 States â€" Giant enhancement of narrow Eu2+ UV-Emission lines in SrB4O7 for luminescence manometry. Acta Materialia, 2022, 231, 117886.	3.8	14
64	Nanocrystalline rare earth fluorides doped with Pr3+ ions. Journal of Rare Earths, 2016, 34, 802-807.	2.5	13
65	Synthesis of luminescent KY3F10 nanopowder multi-doped with lanthanide ions by a co-precipitation method. Journal of Rare Earths, 2016, 34, 808-813.	2.5	13
66	Up-conversion green emission of Yb 3+ /Er 3+ ions doped YVO 4 nanocrystals obtained via modified Pechini's method. Optical Materials, 2017, 74, 128-134.	1.7	13
67	Influence of matrix on the luminescence properties of Eu2+/Eu3+ doped strontium borates: SrB4O7, SrB2O4 and Sr3(BO3)2, exhibiting multicolor tunable emission. Journal of Alloys and Compounds, 2020, 822, 153511.	2.8	13
68	High-pressure luminescence of monoclinic and triclinic GdBO3: Eu3+. Ceramics International, 2020, 46, 26368-26376.	2.3	13
69	Optically active plasmonic cellulose fibers based on Au nanorods for SERS applications. Carbohydrate Polymers, 2022, 279, 119010.	5.1	13
70	Y₂(Ge,Si)O₅:Pr phosphors: multimodal temperature and pressure sensors shaped by bandgap management. Journal of Materials Chemistry C, 2021, 9, 13818-13831.	2.7	10
71	Functionalization of cellulose fibers and paper with lanthanide-based luminescent core/shell nanoparticles providing 3-level protection for advanced anti-counterfeiting purposes. Materials and Design, 2022, 218, 110684.	3.3	10
72	Semiempirical and DFT computations of the influence of Tb(III) dopant on unit cell dimensions of cerium(III) fluoride. Journal of Computational Chemistry, 2015, 36, 193-199.	1.5	7

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73	Stress to distress: Triboluminescence and pressure luminescence of lanthanide diketonates. Chemical Engineering Journal Advances, 2022, 11, 100326.	2.4	6
74	Tunable yellow-green up-conversion emission and luminescence lifetimes in Yb3+-Er3+-Ho3+ multi-doped Î²-NaLuF4 crystals. Journal of Alloys and Compounds, 2019, 793, 96-106.	2.8	5
75	Surface Modification of Luminescent Ln^{III} Fluoride Coreâ€“Shell Nanoparticles with Acetylsalicylic acid (Aspirin): Synthesis, Spectroscopic and in Vitro Hemocompatibility Studies. ChemMedChem, 2020, 15, 1490-1496.	1.6	5
76	3,5-Dihydroxy Benzoic Acid-Capped CaF2:Tb3+ Nanocrystals as Luminescent Probes for the WO42â€“ Ion in Aqueous Solution. ACS Omega, 2020, 5, 4568-4575.	1.6	5
77	Manipulating concentration quenching and thermal stability of Eu3+-activated NaYbF4 nanoparticles via phase transition strategy toward diversified applications. Materials Today Chemistry, 2022, 26, 101013.	1.7	5
78	Adenosine capped CaF2:Eu3+ nanocrystals and their applications in permanganate detection. Optical Materials, 2020, 107, 110048.	1.7	4
79	Ratiometric Upconversion Temperature Sensor Based on Cellulose Fibers Modified with Yttrium Fluoride Nanoparticles. Nanomaterials, 2022, 12, 1926.	1.9	4
80	Synthesis of highly luminescent nanocomposite LaF3:Ln3+/Q-dots-CdTe system, exhibiting tunable red-to-green emission. Chemical Papers, 2019, 73, 2907-2911.	1.0	3
81	Generation of Pure Green Up-Conversion Luminescence in Er3+ Doped and Yb3+-Er3+ Co-Doped YVO4 Nanomaterials under 785 and 975 nm Excitation. Nanomaterials, 2022, 12, 799.	1.9	3
82	Tailoring of polychromatic emissions in Tb3+/Eu3+ codoped NaYbF4 nanoparticles via energy transfer strategy for white light-emitting diodes. Materials Today Chemistry, 2022, 24, 100916.	1.7	3
83	Unusual solidification and phosphate binding to benzimidazole cations in the presence of water. New Journal of Chemistry, 2012, 36, 823.	1.4	2
84	Investigation on various emission colours in composite materials based on carbon and luminophors doped with lanthanide ions. Polyhedron, 2022, 223, 115953.	1.0	0