Mikhail G Brik

List of Publications by Citations

409 papers	9,905 citations	48 h-index	76 g-index
423 ext. papers	11,373 ext. citations	3.7 avg, IF	6.84 L-index

#	Paper	IF	Citations
409	Mn2+ and Mn4+ red phosphors: synthesis, luminescence and applications in WLEDs. A review. *Journal of Materials Chemistry C*, **2018**, 6, 2652-2671	7.1	348
408	Site Occupancy Preference, Enhancement Mechanism, and Thermal Resistance of Mn4+ Red Luminescence in Sr4Al14O25: Mn4+ for Warm WLEDs. *Chemistry of Materials*, **2015**, 27, 2938-2945	9.6	277
407	50th anniversary of the Judd□Ofelt theory: An experimentalist's view of the formalism and its application. *Journal of Luminescence*, **2013**, 136, 221-239	3.8	225
406	On the optical properties of the Mn4+ ion in solids. *Journal of Luminescence*, **2013**, 133, 69-72	3.8	220
405	Influence of Covalency on the Mn4+ 2Eg-4A2gEmission Energy in Crystals. *ECS Journal of Solid State Science and Technology*, **2015**, 4, R39-R43	2	200
404	Narrow Red Emission Band Fluoride Phosphor KNaSiF6:Mn(4+) for Warm White Light-Emitting Diodes. *ACS Applied Materials & Interfaces*, **2016**, 8, 11194-203	9.5	192
403	A low-temperature co-precipitation approach to synthesize fluoride phosphors K2MF6:Mn4+ (M = Ge, Si) for white LED applications. *Journal of Materials Chemistry C*, **2015**, 3, 1655-1660	7.1	158
402	Spin-Forbidden Transitions in the Spectra of Transition Metal Ions and Nephelauxetic Effect. *ECS Journal of Solid State Science and Technology*, **2016**, 5, R3067-R3077	2	152
401	High Color Rendering Index of Rb2GeF6:Mn4+ for Light-Emitting Diodes. *Chemistry of Materials*, **2017**, 29, 935-939	9.6	148
400	Highly Stable KSiF:Mn@KSiF Composite Phosphor with Narrow Red Emission for White LEDs. *ACS Applied Materials & Interfaces*, **2018**, 10, 18082-18092	9.5	125
399	Electronic Energy Levels of the Mn4+Ion in the Perovskite, CaZrO3. *ECS Journal of Solid State Science and Technology*, **2013**, 2, R148-R152	2	119
398	White light emission from Sm3+/Tb3+codoped oxyfluoride aluminosilicate glasses under UV light excitation. *Journal Physics D: Applied Physics*, **2009**, 42, 015414	3	110
397	Spectroscopic and crystal field analysis of absorption and photoluminescence properties of red phosphor CaAl12O19:Mn4+ modified by MgO. *Journal of Alloys and Compounds*, **2011**, 509, 1452-1456	5.7	105
396	Comparative analysis of crystal field effects and optical spectroscopy of six-coordinated Mn4+ ion in the Y2Ti2O7 and Y2Sn2O7 pyrochlores. *Optical Materials*, **2011**, 33, 1671-1676	3.3	90
395	Facile synthesis, morphology and photoluminescence of a novel red fluoride nanophosphor K2NaAlF6:Mn4+. *Journal of Materials Chemistry C*, **2017**, 5, 6420-6426	7.1	89
394	First-principles studies of the electronic and elastic properties of metal nitrides XN (X = Sc, Ti, V, Cr, Zr, Nb). *Computational Materials Science*, **2012**, 51, 380-388	3.2	87
393	Structural investigations on PbO-Sb(2)O(3)-B(2)O(3):CoO glass ceramics by means of spectroscopic and dielectric studies. *Journal of Physics Condensed Matter*, **2009**, 21, 245104	1.8	82

392	Lattice parameters and stability of the spinel compounds in relation to the ionic radii and electronegativities of constituting chemical elements. *Inorganic Chemistry*, **2014**, 53, 5088-99	5.1	78
391	Spectroscopic studies of Sm3+ and Eu3+ co-doped lithium borate glass. *Journal of Alloys and Compounds*, **2010**, 492, 712-716	5.7	78
390	Revisiting Cr-Doped BiGaO Spectroscopy: Crystal Field Effect and Optical Thermometric Behavior of Near-Infrared-Emitting Singly-Activated Phosphors. *ACS Applied Materials & Interfaces*, **2018**, 10, 41512-41524	9.5	78
389	A far-red-emitting NaMgLaTeO6:Mn4+ phosphor with perovskite structure for indoor plant growth. *Dyes and Pigments*, **2019**, 162, 214-221	4.6	72
388	Deep-Red Emitting Mn4+ Doped Mg2TiO4 Nanoparticles. *Journal of Physical Chemistry C*, **2015**, 119, 724-730	3.8	71
387	Influence of tungsten on the emission features of Nd3+, Sm3+ and Eu3+ ions in ZnF2□WO3□TeO2 glasses. *Journal of Alloys and Compounds*, **2010**, 508, 278-291	5.7	71
386	Control of Luminescence by Tuning of Crystal Symmetry and Local Structure in Mn -Activated Narrow Band Fluoride Phosphors. *Angewandte Chemie - International Edition*, **2018**, 57, 1797-1801	16.4	70
385	Modeling of lattice constant and their relations with ionic radii and electronegativity of constituting ions of A2XY6 cubic crystals (A=K, Cs, Rb, Tl; X=tetravalent cation, Y=F, Cl, Br, I). *Journal of Physics and Chemistry of Solids*, **2011**, 72, 1256-1260	3.9	70
384	Ab initio and crystal field studies of the Mn4+-doped Ba2LaNbO6 double-perovskite. *Journal of Luminescence*, **2012**, 132, 579-584	3.8	69
383	Novel efficient phosphors on the base of Mg and Zn co-doped SrTiO3:Pr3+. *Acta Materialia*, **2008**, 56, 358-363	8.4	69
382	Crystal field studies of the Mn4+ energy levels in the perovskite, LaAlO3. *Optical Materials*, **2013**, 35, 1544-1548	3.3	68
381	First-principles calculations of electronic, optical and elastic properties of ZnAl2S4 and ZnGa2O4. *Journal of Physics and Chemistry of Solids*, **2010**, 71, 1435-1442	3.9	66
380	The electronic and optical properties of a narrow-band red-emitting nanophosphor K2NaGaF6:Mn4+ for warm white light-emitting diodes. *Journal of Materials Chemistry C*, **2018**, 6, 3016-3025	7.1	65
379	Influence of Al3+ ions on luminescence efficiency of Eu3+ ions in barium boro-phosphate glasses. *Journal of Non-Crystalline Solids*, **2015**, 419, 75-81	3.9	64
378	Ratiometric optical thermometry using deep red luminescence from 4T2 and 2E states of Cr3+ in ZnGa2O4 host. *Optical Materials*, **2018**, 85, 510-516	3.3	62
377	Photoluminescence of Eu3+-, Tb3+-, Dy3+- and Tm3+-doped transparent GeO2□TiO2□K2O glass ceramics. *Journal of Physics Condensed Matter*, **2008**, 20, 335106	1.8	58
376	Effective Ratiometric Luminescent Thermal Sensor by Cr3+-Doped Mullite Bi2Al4O9 with Robust and Reliable Performances. *Advanced Optical Materials*, **2020**, 8, 2000124	8.1	57
375	Critical Review□A Review of the Electronic Structure and Optical Properties of Ions with d3Electron Configuration (V2+, Cr3+, Mn4+, Fe5+) and Main Related Misconceptions. *ECS Journal of Solid State Science and Technology*, **2018**, 7, R3079-R3085	2	57

374	Calculations of the transitions intensities in the optical spectra of Dy3+:LiYF4. *Journal of Alloys and Compounds*, **2004**, 374, 63-68	5.7	56
373	Spectroscopy of Mn4+ in Double Perovskites, La2LiSbO6 and La2MgTiO6: Deep Red Photon Generators for Agriculture LEDs. *ECS Journal of Solid State Science and Technology*, **2018**, 7, R3158-R3162	2	55
372	Role of titanium valence states in optical and electronic features of PbO–Sb2O3–B2O3:TiO2 glass alloys. *Journal of Alloys and Compounds*, **2009**, 482, 283-297	5.7	55
371	Soft synthesis and vacuum ultraviolet spectra of YAG:Ce3+nanocrystals: reassignment of Ce3+energy levels. *Journal of Physics Condensed Matter*, **2007**, 19, 216213	1.8	55
370	Recent insights into upconverting nanoparticles: spectroscopy, modeling, and routes to improved luminescence. *Nanoscale*, **2019**, 11, 12015-12029	7.7	53
369	Structural, optical and crystal field analyses of undoped and Mn2+-doped ZnS nanoparticles synthesized via reverse micelle route. *Journal of Luminescence*, **2014**, 146, 133-140	3.8	53
368	Pyrochlore Structural Chemistry: Predicting the Lattice Constant by the Ionic Radii and Electronegativities of the Constituting Ions. *Journal of the American Ceramic Society*, **2012**, 95, 1454-1460	3.8	53
367	Luminescence of Cr 3+ ions in ZnAl 2 O 4 and MgAl 2 O 4 spinels: correlation between experimental spectroscopic studies and crystal field calculations. *Journal of Luminescence*, **2016**, 177, 145-151	3.8	53
366	Optical properties and electronic band structure of BiMg2PO6, BiMg2VO6, BiMg2VO6:Pr3+ and BiMg2VO6:Eu3+. *Optical Materials*, **2014**, 36, 1724-1729	3.3	52
365	Fluorescence features of Sm3+ ions in Na2SO4–MOP2O5 glass system—influence of modifier oxide. *Journal of Luminescence*, **2011**, 131, 212-217	3.8	50
364	Enhanced Green Emission of Eu2+ by Energy Transfer from the 5D3 Level of Tb3+ in NaCaPO4. *Journal of Physical Chemistry C*, **2014**, 118, 7002-7009	3.8	48
363	Spectral analysis of Er(3+)-, Er(3+)/Yb(3+)- and Er(3+)/Tm(3+)/Yb(3+)-doped TeO(2)-ZnO-WO(3)-TiO(2)-Na(2)O glasses. *Journal of Physics Condensed Matter*, **2008**, 20, 375101	1.8	48
362	Optical spectra of trivalent lanthanides in LiYF4 crystal. *Journal of Solid State Chemistry*, **2005**, 178, 412-418	3.3	48
361	A new reductive dl-mandelic acid loading approach for moisture-stable Mn doped fluorides. *Chemical Communications*, **2018**, 54, 11857-11860	5.8	47
360	Synthesis and optical properties of infrared-emitting YF3:Nd nanoparticles. *Journal of Applied Physics*, **2009**, 106, 063118	2.5	47
359	Optical spectra and energy levels of the Cr3+ ions in MWO4 (M=Mg, Zn, Cd) and MgMoO4 crystals. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 29-34	3.9	47
358	Calculations of spin Hamiltonian parameters and analysis of trigonal distortions in LiSr(Al,Ga)F6:Cr3+ crystals. *Physica B: Condensed Matter*, **2006**, 384, 78-81	2.8	47
357	Pushing the Limit of Boltzmann Distribution in Cr-Doped CaHfO for Cryogenic Thermometry. *ACS Applied Materials & Interfaces*, **2020**, 12, 38325-38332	9.5	47

356	Phase-transition-induced giant enhancement of red emission in Mn4+-doped fluoride elpasolite phosphors. *Journal of Materials Chemistry C*, **2018**, 6, 3951-3960	7.1	46
355	Narrow Band Deep Red Photoluminescence of Y2Mg3Ge3O12:Mn4+,Li+Inverse Garnet for High Power Phosphor Converted LEDs. *ECS Journal of Solid State Science and Technology*, **2018**, 7, R3086-R3092	2	46
354	Crystal growth, spectroscopic and crystal field studies of [N(CH3)4]2MnCl4 and [N(CH3)4]2CoCl4 single crystals in the paraelectric phase. *Solid State Communications*, **2005**, 135, 298-303	1.6	45
353	High-performance and moisture-resistant red-emitting Cs2SiF6:Mn4+ for high-brightness LED backlighting. *Journal of Materials Chemistry C*, **2019**, 7, 2401-2407	7.1	44
352	La6Ba4Si6O24F2:Sm3+ novel red-emitting phosphors: Synthesis, photoluminescence and theoretical calculations. *Journal of Luminescence*, **2019**, 206, 417-425	3.8	44
351	Structural and electronic properties of SrAl2O4:Eu2+ from density functional theory calculations. *Journal of Alloys and Compounds*, **2013**, 573, 6-10	5.7	43
350	Ground and excited state absorption of Ni2+ ions in MgAl2O4: Crystal field analysis. *Journal of Alloys and Compounds*, **2007**, 432, 61-68	5.7	43
349	Luminescence enhancement in the Sr2ZnW1−xMoxO6:Eu3+,Li+ phosphor for near ultraviolet based solid state lighting. *Journal of Alloys and Compounds*, **2016**, 685, 917-926	5.7	42
348	First-principles calculations of the structural and electronic properties of the cubic CaZrO3 (001) surfaces. *Surface Science*, **2013**, 608, 146-153	1.8	42
347	Lanthanide compounds with fluorinated aryloxide ligands: near-infrared emission from Nd, Tm, and Er. *Inorganic Chemistry*, **2009**, 48, 3573-80	5.1	42
346	Photoluminescence properties of a novel red fluoride K2LiGaF6:Mn4+ nanophosphor. *RSC Advances* , **2017**, 7, 30588-30593	3.7	41
345	De-quenching influence of aluminum ions on Y/B ratio of Dy3+ ions in lead silicate glass matrix. *Journal of Alloys and Compounds*, **2013**, 575, 375-381	5.7	41
344	First-principles calculations of structural, electronic, optical and elastic properties of magnesite MgCO3 and calcite CaCO3. *Physica B: Condensed Matter*, **2011**, 406, 1004-1012	2.8	41
343	Semi-ab initio calculations of superposition model and crystal field parameters for Co2+ ions using the exchange charge model. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 2401-2410	3.9	41
342	Significantly conquering moisture-induced luminescence quenching of red line-emitting phosphor Rb2SnF6:Mn4+ through H2C2O4 triggered particle surface reduction for blue converted warm white light-emitting diodes. *Journal of Materials Chemistry C*, **2019**, 7, 247-255	7.1	40
341	Influence of Crystallization on the Luminescence Characteristics of Pr3+ Ions in PbO–Sb2O3–B2O3 Glass System. *Journal of the American Ceramic Society*, **2010**, 93, 2004	3.8	40
340	Crystal field splitting of 5d states and luminescence mechanism in SrAl2O4:Eu2+ phosphor. *Journal of Luminescence*, **2017**, 182, 79-86	3.8	39
339	Optical Spectroscopy and Crystal Field Studies of the Mn4+ Ion (3d3) in the Double Perovskite NaLaMgTeO6. *Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences*, **2014**, 69, 141-149	1	39

338	First-principles calculations of hydrostatic pressure effects on the structural, elastic and thermodynamic properties of cubic monocarbides XC (X = Ti, V, Cr, Nb, Mo, Hf). *Solid State Sciences*, **2012**, 14, 1431-1444	3.4	39
337	Crystal field analysis of the energy level structure of Cs2NaAlF6:Cr3+. *Journal of Physics Condensed Matter*, **2006**, 18, 5221-5234	1.8	38
336	Fully relativistic calculations of the L2,3-edge XANES spectra for vanadium oxides. *European Physical Journal B*, **2006**, 51, 345-355	1.2	38
335	Chromium(III)-Doped Fluoride Phosphors with Broadband Infrared Emission for Light-Emitting Diodes. *Inorganic Chemistry*, **2020**, 59, 376-385	5.1	38
334	On the Mn4+ R-line emission intensity and its tunability in solids. *Optical Materials*, **2019**, 91, 338-343	3.3	37
333	Boltzmann Thermometry in Cr3+-Doped Ga2O3 Polymorphs: The Structure Matters!. *Advanced Optical Materials*, **2021**, 9, 2100033	8.1	37
332	Comparative crystal field analysis of energy level schemes and nephelauxetic effect for Cr4+, Cr3+, and Mn4+ ions in Y2Sn2O7 pyrochlore. *Optical Materials*, **2013**, 35, 1251-1256	3.3	36
331	Lanthanide clusters with chalcogen encapsulated Ln: NIR emission from nanoscale NdSe(x). *Journal of the American Chemical Society*, **2011**, 133, 373-8	16.4	36
330	Ratiometric Luminescent Thermometers with a Customized Phase-Transition-Driven Fingerprint in Perovskite Oxides. *ACS Applied Materials & Interfaces*, **2019**, 11, 38937-38945	9.5	35
329	Influence of Bi3+ ions on the amplification of 1.3□m emission of Pr3+ ions in lead silicate glasses for the applications in second telecom window communications. *Journal of Luminescence*, **2017**, 182, 312-322	3.8	35
328	Comparative analysis of crystal field effects and energy level scheme of six-fold coordinated Cr4+ ion in the pyrochlores, Y2B2O7 (B=Ti4+, Sn4+). *Journal of Luminescence*, **2011**, 131, 54-58	3.8	35
327	Microscopic analysis of the crystal field strength and lowest charge transfer energies in the elpasolite crystals Cs2NaYX6(X=F,Cl,Br) doped with Cr3+. *Physical Review B*, **2006**, 74,	3.3	35
326	Electronic structure of Ce3+ multicenters in yttrium aluminum garnets. *Applied Physics Letters*, **2013**, 102, 241112	3.4	34
325	First-principles study of the electronic and optical properties of CuXS(2) (X = Al, Ga, In) and AgGaS(2) ternary compounds. *Journal of Physics Condensed Matter*, **2009**, 21, 485502	1.8	33
324	Microscopic analysis of the crystal field strength and electron-vibrational interaction in cubic SrTiO(3) doped with Cr(3+), Mn(4+) and Fe(5+) ions. *Journal of Physics Condensed Matter*, **2009**, 21, 155502	1.8	33
323	Non-equivalent Mn4+ doping into A2NaScF6 (A = K, Rb, Cs) hosts toward short fluorescence lifetime for backlight display application. *Journal of Materials Chemistry C*, **2019**, 7, 9203-9210	7.1	32
322	Energy level schemes of f N electronic configurations for the di-, tri-, and tetravalent lanthanides and actinides in a free state. *Journal of Luminescence*, **2016**, 170, 369-374	3.8	32
321	Amplification of green emission of Ho3+ ions in lead silicate glasses by sensitizing with Bi3+ ions. *Journal of Alloys and Compounds*, **2016**, 683, 114-122	5.7	32

320	Epitaxial growth via anti-solvent-induced deposition towards a highly efficient and stable Mn4+ doped fluoride red phosphor for application in warm WLEDs. *Journal of Materials Chemistry C*, **2019**, 7, 6077-6084	7.1	31
319	Effect of different surfactants on structural and optical properties of Ce3+ and Tb3+ co-doped BiPO4 nanostructures. *Optical Materials*, **2015**, 39, 110-117	3.3	31
318	Emission characteristics of Dy3+ ions in lead antimony borate glasses. *Applied Physics B: Lasers and Optics*, **2012**, 108, 455-461	1.9	31
317	Spectroscopic investigations of Nd3+-, Er3+-, Er3+/Yb3+-, and Tm3+-ions doped SiO2□Al2O3□CaF2□GdF3 glasses. *Physica B: Condensed Matter*, **2009**, 404, 3348-3355	2.8	31
316	Thermal quenching of Mn4+ luminescence in SrAl12O19:Mn4+. *Journal of Luminescence*, **2019**, 206, 84-90	3.8	31
315	Tunable luminescence of Bi(3+)-doped YP(x)V(1-x)O4 (0 □x □1). *Journal of Physics Condensed Matter* , **2014**, 26, 385503	1.8	30
314	Comparative crystal field study of Ni2+ energy levels in NiCl2, NiBr2, and NiI2 crystals. *Physica B: Condensed Matter*, **2006**, 371, 43-49	2.8	30
313	Mn-Doped Heterodialkaline Fluorogermanate Red Phosphor with High Quantum Yield and Spectral Luminous Efficacy for Warm-White-Light-Emitting Device Application. *Inorganic Chemistry*, **2018**, 57, 14705-14714	5.1	29
312	Ab Initio Studies of the Structural, Electronic, and Optical Properties of K2SiF6Single Crystals at Ambient and Elevated Hydrostatic Pressure. *Journal of the Electrochemical Society*, **2012**, 159, J212-J216	3.9	28
311	Electron□vibrational interaction in the 5d states of Ce3+ ions in halosulphate phosphors. *Materials Chemistry and Physics*, **2011**, 128, 326-330	4.4	28
310	First-principles calculations of optical and electronic properties of pure and Sm3+-doped TiO2. *Physica B: Condensed Matter*, **2010**, 405, 2450-2456	2.8	28
309	Crystal field analysis of energy level structure of the Cr2O3 antiferromagnet. *Solid State Communications*, **2004**, 132, 831-835	1.6	28
308	First-principles calculations of electronic, optical and elastic properties of Ba2MgWO6 double perovskite. *Journal of Physics and Chemistry of Solids*, **2012**, 73, 252-256	3.9	26
307	The nature of Mn 4+ luminescence in the orthorhombic perovskite, GdAlO 3. *Optical Materials*, **2017** , 63, 207-212	3.3	26
306	Evidence of multicenter structure of cerium ions in gadolinium gallium garnet crystals studied by infrared absorption spectroscopy. *Physical Review B*, **2013**, 87,	3.3	26
305	Comparative ab initio study of electronic, optical and chemical bonding properties of pyrochlores, Y2B2O7 (B=Ti4+, Sn4+). *Journal of Luminescence*, **2010**, 130, 2368-2376	3.8	26
304	Crystal field analysis of the absorption spectra and electron□phonon interaction in Ca3Sc2Ge3O12:Ni2+. *Journal of Physics and Chemistry of Solids*, **2006**, 67, 738-744	3.9	26
303	Calculations of Complete 4fnand 4fn-15d1Energy Level Schemes of Free Trivalent Rare-Earth Ions. *Japanese Journal of Applied Physics*, **2004**, 43, L611-L613	1.4	26

302	Single-Crystal Red Phosphors: Enhanced Optical Efficiency and Improved Chemical Stability for wLEDs. *Advanced Optical Materials*, **2020**, 8, 1901512	8.1	26
301	Luminescence of Mn4+ ions in CaTiO3 and MgTiO3 perovskites: Relationship of experimental spectroscopic data and crystal field calculations. *Optical Materials*, **2017**, 74, 46-51	3.3	25
300	Judd–Ofelt Analysis of Eu3+ Emission in TiO2 Anatase Nanoparticles. *Materials Transactions*, **2015**, 56, 1416-1418	1.3	25
299	Influence of Al declustering on the photoluminescent properties of Pr3+ ions in PbO–SiO2 glasses. *Journal of Non-Crystalline Solids*, **2013**, 362, 201-206	3.9	25
298	Spectroscopic and crystal-field analysis of energy levels of Eu3+ in SnO2 in comparison with ZrO2 and TiO2. *Journal of Alloys and Compounds*, **2011**, 509, 3441-3451	5.7	25
297	On the structure, synthesis, and characterization of ultrafast blue-emitting CsPbBr3 nanoplatelets. *APL Materials*, **2019**, 7, 011104	5.7	24
296	Li2TiO3:Mn4+ Deep-Red Phosphor for the Lifetime-Based Luminescence Thermometry. *ChemistrySelect*, **2019**, 4, 7067-7075	1.8	24
295	Rare-earth antisites in lutetium aluminum garnets: Influence on lattice parameter and Ce3+ multicenter structure. *Optical Materials*, **2014**, 36, 1515-1519	3.3	24
294	Ab-initio studies of the electronic and optical properties of ZnWO4 and CdWO4 single crystals. *Materials Chemistry and Physics*, **2012**, 134, 1113-1120	4.4	24
293	Luminescence of Mn4+ in the orthorhombic perovskite, LaGaO3. *Journal of Luminescence*, **2017**, 183, 437-441	3.8	24
292	Spectral analysis of RE(3+) (RE = Er, Nd, Pr and Ho):GeO(2)-B(2)O(3)-ZnO-LiF glasses. *Journal of Physics Condensed Matter*, **2008**, 20, 375104	1.8	24
291	Photoluminescence of Pr3+-, Dy3+- and Tm3+-doped transparent nanocrystallized KNbGeO5glasses. *Journal Physics D: Applied Physics*, **2008**, 41, 175106	3	24
290	A computation study of site occupancy in the commercial Mg28Ge7.55O32F15.04:Mn4+ phosphor. *Optical Materials*, **2016**, 54, 245-251	3.3	24
289	Structural and electrical properties of zinc tantalum borate glass ceramic. *Ceramics International*, **2016**, 42, 17269-17282	5.1	24
288	Luminescence of Ce3+-Doped MB2Si2O8(M = Sr, Ba): A Deeper Insight into the Effects of Electronic Structure and Stokes Shift. *Journal of Physical Chemistry C*, **2016**, 120, 569-580	3.8	23
287	Particle Size and Crystal Phase Dependent Photoluminescence of La2Zr2O7:Eu3+ Nanoparticles. *Journal of the American Ceramic Society*, **2015**, 98, 3192-3201	3.8	23
286	The de-clustering influence of aluminum ions on the emission features of Nd3+ ions in PbO–SiO2 glasses. *Optics Communications*, **2013**, 298-299, 135-140	2	23
285	Optical and Photoluminescence Properties of Erbium-Doped Chalcogenide Glasses (GeGaS:Er). *IEEE Journal of Selected Topics in Quantum Electronics*, **2008**, 14, 1353-1360	3.8	23

284	Judd-Ofelt parametrization from emission spectra: The case study of the Eu3+ 5D1 emitting level. *Chemical Physics*, **2020**, 528, 110513	2.3	23
283	Structural, electronic, and optical features of CuAl(S(1-x)Se(x))2 solar cell materials. *Inorganic Chemistry*, **2014**, 53, 2645-51	5.1	22
282	The dependence of 10 Dq crystal field parameter for Mn4+ (3d3 configuration) and the magnitude of 7F1 level splitting for Eu3+ (4f6 configuration) on pyrochlore compositions. *Optical Materials*, **2012**, 35, 196-200	3.3	22
281	Spectroscopic and crystal field study of Sm3+in different phases of TiO2. *Journal Physics D: Applied Physics*, **2009**, 42, 125107	3	22
280	High moisture resistance of an efficient Mn4+-activated red phosphor Cs2NbOF5:Mn4+ for WLEDs. *Chemical Engineering Journal*, **2021**, 405, 126678	14.7	22
279	First principles studies of the structural, electronic and optical properties of LiInSe2 and LiInTe2 chalcopyrite crystals. *Solid State Communications*, **2015**, 203, 69-74	1.6	21
278	Ab-initio studies of the electronic and optical properties of Al2O3:Ti3+ laser crystals. *Physica B: Condensed Matter*, **2018**, 532, 178-183	2.8	21
277	Spectroscopy and calculations for 4f(N) -f4f(N-1)5d transitions of lanthanide ions in K3YF6. *Journal of Physical Chemistry A*, **2012**, 116, 9158-80	2.8	21
276	Spectroscopic studies of the Pr3+-doped borovanadate glass. *Journal of Alloys and Compounds*, **2010**, 490, 184-189	5.7	21
275	Red-emitting phosphor Rb2TiF6:Mn4+ with high thermal-quenching resistance for wide color-gamut white light-emitting diodes. *Optical Materials*, **2017**, 72, 78-85	3.3	21
274	Visible and near-infrared up-conversion luminescence of KGd(WO4)2 micro-crystals doped with Er3+, Tm3+, Ho3+ and Yb3+ ions. *Journal of Alloys and Compounds*, **2016**, 684, 271-281	5.7	21
273	Spectroscopy of Mn4+ in orthorhombic perovskite, LaInO3. *Journal of Luminescence*, **2019**, 206, 398-402	3.8	21
272	Band structure, electronic and optical features of Tl4SnX3 (X□+□, Te) ternary compounds for optoelectronic applications. *Journal of Alloys and Compounds*, **2017**, 710, 600-607	5.7	20
271	Z-scan analysis and ab initio studies of □-BaTeMo2O9 single crystal. *Solid State Sciences*, **2014**, 27, 30-35	3.4	20
270	Luminescence and multi-step energy transfer in GdAl3(BO3)4 doped with Ce3+/Tb3+. *Journal of Luminescence*, **2015**, 161, 257-263	3.8	20
269	Hybrid density-functional calculations of structural, elastic and electronic properties for a series of cubic perovskites CsMF3 (M = Ca, Cd, Hg, and Pb). *Computational Materials Science*, **2012**, 58, 101-112	3.2	20
268	Spectral and fluorescent kinetics features of Nd3+ ion in Nb2O5, Ta2O5 and La2O3 mixed lithium zirconium silicate glasses. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2011**, 81, 498-503	4.4	20
267	Up-conversion emission in KGd(WO4)2 single crystals triply-doped with Er3+/Yb3+/Tm3+, Tb3+/Yb3+/Tm3+ and Pr3+/Yb3+/Tm3+ ions. *Optical Materials*, **2011**, 33, 1595-1601	3.3	20

266	Empirical relation between covalence and the energy position of the Ni2+ 1E state in octahedral complexes. *Journal of Luminescence*, **2014**, 148, 338-341	3.8	19
265	Luminescent, optical and electronic properties of Na2Mo2O7 single crystals. *Journal of Luminescence*, **2017**, 192, 1264-1272	3.8	19
264	The nature of Bi3+ luminescence in the double perovskite, La2LiSbO6. *Journal of Luminescence*, **2017**, 192, 620-625	3.8	19
263	Ab initio, crystal field and experimental spectroscopic studies of pure and Ni2+-doped KZnF3 crystals. *Materials Chemistry and Physics*, **2012**, 136, 90-102	4.4	19
262	Comparative first-principles calculations of electronic, optical and elastic anisotropy properties of CsXBr3 (X=Ca,Ge,Sn) crystals. *Solid State Communications*, **2011**, 151, 1733-1738	1.6	19
261	Structural, electronic and optical properties of pure and Ni2+-doped CdI2 layered crystals as explored by ab initio and crystal field calculations. *Physica B: Condensed Matter*, **2011**, 406, 192-199	2.8	19
260	Exchange charge model and analysis of the microscopic crystal field effects in KAl(MoO4)2:Cr3+. *Journal of Luminescence*, **2011**, 131, 2642-2645	3.8	19
259	First-principles analysis method for the f□ transitions of heavy metal ions. *Journal of Alloys and Compounds*, **2004**, 374, 18-21	5.7	19
258	Effects of the spin-triplet states mixture and electron-phonon coupling in Y3Al5O12:Cr4+. *EPJ Applied Physics*, **2005**, 29, 239-245	1.1	19
257	Spectroscopic and luminescent properties of Yb,Er:LaSc3(BO3)4 crystals. *Optical Materials*, **2000**, 14, 121-126	3.3	19
256	Comparative first-principles calculations of the electronic, optical, elastic and thermodynamic properties of XCaF3 (X = K, Rb, Cs) cubic perovskites. *Materials Chemistry and Physics*, **2017**, 188, 39-48	4.4	18
255	Specific features of the electronic structure of a novel ternary Tl3PbI5 optoelectronic material. *Physical Chemistry Chemical Physics*, **2014**, 16, 12838-47	3.6	18
254	Crystal field analysis of rare-earth ions energy levels in GaN. *Optical Materials*, **2014**, 37, 165-174	3.3	18
253	Modification of the structural and electronic properties of graphene by the benzene molecule adsorption. *Physica B: Condensed Matter*, **2012**, 407, 4557-4561	2.8	18
252	Highly NIR-emissive lanthanide polyselenides. *Inorganic Chemistry*, **2011**, 50, 9184-90	5.1	18
251	Structural, spectroscopic and crystal field analyses of Ni2+ and Co2+ doped Zn2SiO4 powders. *Applied Physics A: Materials Science and Processing*, **2011**, 104, 483-492	2.6	18
250	Spectroscopic and crystal field studies of LiAlO2:Mn2+ single crystals. *Journal of Alloys and Compounds*, **2010**, 506, 4-9	5.7	18
249	Emission features of Ho3+ ion in Nb2O5, Ta2O5 and La2O3 mixed Li2O□rO2□iO2 glasses. *Physica B: Condensed Matter*, **2011**, 406, 3592-3598	2.8	18

248	ZnO□TeO2▽Yb/Tm glasses with silver nanoparticles as laser operated quantum electronic devices. *Optics and Laser Technology*, **2010**, 42, 1340-1343	4.2	18
247	Fully relativistic analysis of the covalence effects for the isoelectronic 3d3 ions (Cr3+, Mn4+, Fe5+) in SrTiO3. *Journal of Physics and Chemistry of Solids*, **2006**, 67, 856-861	3.9	18
246	Insulating characteristics of zinc niobium borate glass-ceramics. *Journal of the American Ceramic Society*, **2017**, 100, 4066-4080	3.8	17
245	Vacuum Referred Binding Energy Scheme, Electron▽Vibrational Interaction, and Energy Transfer Dynamics in BaMg2Si2O7:Ln (Ce3+, Eu2+) Phosphors. *Journal of Physical Chemistry C*, **2018**, 122, 2959-2967	3.8	17
244	Structural and spectroscopic studies of Eu3+ doped Lu2O3□Gd2O3 solid solutions. *Optical Materials* , **2014**, 36, 1083-1091	3.3	17
243	Specific features of band structure and optical anisotropy of Cu2CdGeSe4 quaternary compounds. *Materials Chemistry and Physics*, **2014**, 147, 155-161	4.4	17
242	Spectroscopic properties of KGd(WO4)2 single crystals doped with Er3+, Ho3+, Tm3+ and Yb3+ ions: Luminescence and micro-Raman investigations. *Journal of Alloys and Compounds*, **2013**, 577, 687-692	3.7	17
241	Influence of chemical bond length changes on the crystal field strength and □ligand▽metal□charge transfer transitions in Cs2GeF6 doped with Mn4+ and Os4+ ions. *Journal of Physics and Chemistry of Solids*, **2007**, 68, 1341-1347	3.9	17
240	Comparative study of crystal field effects for Ni2+ ion in LiGa5O8, MgF2 and AgCl crystals. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 1796-1801	3.9	17
239	Recombination luminescence of Cu and/or Ag doped lithium tetraborate single crystals. *Journal of Luminescence*, **2016**, 177, 9-16	3.8	17
238	VUV□is photoluminescence, low-voltage cathodoluminescence and electron-vibrational interaction of Mn2+ in Ba2MgSi2O7. *Optical Materials*, **2015**, 43, 59-65	3.3	16
237	First-principles calculations of different (001) surface terminations of three cubic perovskites CsCaBr3, CsGeBr3, and CsSnBr3. *Journal of Physics and Chemistry of Solids*, **2018**, 115, 289-299	3.9	16
236	Bandgap engineering of the LuxY1□PO4 mixed crystals. *Journal of Luminescence*, **2016**, 171, 33-39	3.8	16
235	Preparation and fluorescence properties of La2CaB10O19 crystals doped with Pr3+ ions. *Journal of Crystal Growth*, **2011**, 334, 122-125	1.6	16
234	Calculations of physical properties of pure and doped crystals: Ab initio and semi-empirical methods in application to YAlO3:Ce3+ and TiO2. *Journal of Luminescence*, **2011**, 131, 396-403	3.8	16
233	Glass composition and excitation wavelength dependence of the luminescence of Eu3+ doped lead borate glass. *Journal of Applied Physics*, **2011**, 110, 033536	2.5	16
232	Studies of electron-vibrational interaction and crystal field splitting in 5d states of Eu2+in CaAl2O4co-doped with Eu2+and Er3+. *Journal Physics D: Applied Physics*, **2009**, 42, 245401	3	16
231	Spectroscopic and crystal field studies of YAlO(3) single crystals doped with Mn ions. *Journal of Physics Condensed Matter*, **2009**, 21, 025404	1.8	16

230	Fluorescence features of Tm3+ ions in PbO–Sb2O3–B2O3 glass ceramics. *Physica B: Condensed Matter*, **2010**, 405, 1872-1880	2.8	16
229	Crystal field analysis of energy level structure of LiAlO2:V3+ and LiGaO2:V3+. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2006**, 63, 759-65	4.4	16
228	Crystal field analysis of energy level structure of LiAlO2:Cr4+ and LiGaO2:Cr4+. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 2501-2507	1.3	16
227	First-principles analysis method for the multiplet structures of rare-earth ions in solids. *Journal of Alloys and Compounds*, **2004**, 380, 136-140	5.7	16
226	Relativistic Calculations of Complete 4fnEnergy Level Schemes of Free Trivalent Rare-Earth Ions. *Japanese Journal of Applied Physics*, **2005**, 44, 7488-7490	1.4	16
225	Luminescence and Cationic-Size-Driven Site Selection of Eu and Ce Ions in CaMg(SiO)Cl. *Inorganic Chemistry*, **2018**, 57, 14872-14881	5.1	16
224	Bifunctional Bi2ZnOB2O6:Nd3+ Single Crystal for Near Infrared Lasers: Luminescence and Raman Investigations. *Crystal Growth and Design*, **2017**, 17, 3656-3664	3.5	15
223	Spectroscopic properties of Bi2ZnOB2O6 single crystals doped with Pr3+ ions: Absorption and luminescence investigations. *Optical Materials*, **2015**, 47, 428-434	3.3	15
222	Electronic and optical properties of Er-doped Y2O2S phosphors. *Journal of Materials Chemistry C*, **2015**, 3, 11486-11496	7.1	15
221	Strong second harmonic generation in LiInX2 (X=Se, Te) chalcopyrite crystals as explored by first-principles methods. *Journal of Alloys and Compounds*, **2016**, 675, 355-363	5.7	15
220	Enhanced near-infrared quantum cutting in CaMoO4:Yb3+ phosphors induced by doping with Li+ ions for improving solar cells efficiency. *Materials Chemistry and Physics*, **2014**, 147, 860-866	4.4	15
219	Electron–phonon coupling and Jahn–Teller effect in KMgF3:Cr3+. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 2982-2993	1.3	15
218	Comparative analysis of non-radiative relaxation of Cr3+ in LiCaAlF6 and Al2O3 crystals. *Journal of Luminescence*, **2003**, 102-103, 283-286	3.8	15
217	Novel blue-emitting phosphors - BaBeSiO_4:Eu^2+: luminescence properties and its application for UV-light emitting diodes. *Optical Materials Express*, **2016**, 6, 416	2.6	15
216	Crystal structure analysis and evidence of mixed anion coordination at the Ce3+ site in Y3Al2(Al,Si)3(O,N)12 oxynitride garnet phosphor. *Journal of Materials Chemistry C*, **2019**, 7, 1330-1336	7.1	14
215	Ultrabroadband red luminescence of Mn in MgAlO peaking at 651 nm. *Dalton Transactions*, **2020**, 49, 5711-5721	4.3	14
214	Photoinduced features of energy bandgap in quaternary Cu2CdGeS4 crystals. *Journal of Physics Condensed Matter*, **2013**, 25, 505802	1.8	14
213	Fabrication of polycrystalline (Y0.7Gd0.3)2O3:Eu3+ ceramics: The influence of initial pressure and sintering temperature on its morphology and photoluminescence activity. *Ceramics International*, **2012**, 38, 1303-1313	5.1	14

212	Influence of Tm+3concentration on the non-linear optical effects of the BiB3O6 : Tm3+glass nanoparticle-doped polymer. *Journal Physics D: Applied Physics*, **2010**, 43, 015103	3	14
211	Low symmetry aspects in spectroscopic and magnetic susceptibility studies of Tb3+(4f8) in TbAlO3. *Journal of Rare Earths*, **2009**, 27, 627-632	3.7	14
210	Photoluminescence in MgxSr1−xAl2O4:Eu2+, Nd3+and electron–vibrational interaction in the Eu2+ 5d states. *Physica B: Condensed Matter*, **2009**, 404, 3440-3444	2.8	14
209	Optical features of calcium neodymium oxyborate Ca4NdO(BO3)3 doped by Yb3+. *Journal of Alloys and Compounds*, **2009**, 481, 14-16	5.7	14
208	Crystal Field Analysis and Electron-phonon Coupling in Sc2O3:Cr3+. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2004**, 59, 799-803	1.4	14
207	Ambient and high pressure spectroscopy of Ce^3+ doped yttrium gallium garnet. *Optical Materials Express*, **2015**, 5, 1868	2.6	13
206	Optical spectroscopy, thermal quenching and electron–vibrational interaction of the octahedrally coordinated Eu2+ ion in SrAl2B2O7. *Journal of Luminescence*, **2014**, 151, 256-260	3.8	13
205	Manifestation of up-conversion in Yb3+/Tm3+ doped Li2O–Y2O3–SiO2 glass system. *Applied Physics B: Lasers and Optics*, **2013**, 110, 335-344	1.9	13
204	Systematic analysis of the spectroscopic characteristics of 3d ions in a free state and some cubic crystals. *Optical Materials*, **2013**, 35, 1776-1782	3.3	13
203	Up-conversion emission in triply-doped Ho3+/Yb3+/Tm3+ KGd(WO4)2 single crystals. *Optics Communications*, **2011**, 284, 2895-2899	2	13
202	A luminescence spectroscopy and theoretical study of 4f-5d transitions of Ce3+ ions in SrAlF5 crystals. *Journal of Physics Condensed Matter*, **2011**, 23, 105501	1.8	13
201	Complex study of the crystal field splitting, –and–impurity ion–charge transfer transitions and high lying 4f–s intraconfigurational transitions for all trivalent lanthanides in Cs2NaYCl6 crystal. *Journal of Alloys and Compounds*, **2008**, 454, 38-45	5.7	13
200	Spectroscopy of Ca4GdO(BO3)3 (GdCOB): Pr3+ single crystals. *Journal of Alloys and Compounds*, **2008**, 465, 24-34	5.7	13
199	Spectroscopic and crystal field studies of (NH4)2BeF4 : Co2+. *Solid State Communications*, **2007**, 143, 326-330	1.6	13
198	Crystal field analysis of energy level structure of LaF3:Eu3+. *Journal of Alloys and Compounds*, **2006**, 408-412, 753-756	5.7	13
197	Electron–phonon interaction in the V2+:CsCaF3 laser crystal: geometry of the [VF6]4−complex in the 4T2g excited state. *Physica B: Condensed Matter*, **2005**, 355, 164-171	2.8	13
196	Prediction on Mn4+-Doped Germanate Red Phosphor by Crystal Field Calculation on Basis of Exchange Charge Model: A Case Study on K2Ge4O9:Mn4+. *Journal of the American Ceramic Society*, **2016**, 99, 2388-2394	3.8	13
195	Controlled morphology and improved photoluminescence of red emitting K 2 LiAlF 6 :Mn 4+ nano-phosphor by co-doping with alkali metal ions. *Optical Materials*, **2017**, 74, 52-57	3.3	12

194	Optical properties of 3d transition metal ion-doped aluminophosphate glasses. *Journal of Luminescence*, **2019**, 213, 263-272	3.8	12
193	Optical properties of pure and Ce3+ doped gadolinium gallium garnet crystals and epitaxial layers. *Journal of Luminescence*, **2015**, 164, 31-37	3.8	12
192	Tailoring Nd3+ luminescence characteristics by Yb3+ doping in K5Nd(MoO4)4, RbNd(WO4)2 and NdAl3(BO3)4 crystal matrices. *Journal of Alloys and Compounds*, **2015**, 639, 577-582	5.7	12
191	Systematic analysis of spectroscopic characteristics of heavy transition metal ions with 4dN and 5dN (N=1□0) electronic configurations in a free state. *Journal of Luminescence*, **2014**, 145, 402-409	3.8	12
190	Crystal field calculations of energy levels of the Ni2+ ions in MgO. *Journal of Luminescence*, **2013**, 135, 74-78	3.8	12
189	Specific features of fluorescence kinetics of Pr+3 doped BiB3O6 glasses. *Journal of Alloys and Compounds*, **2012**, 538, 220-223	5.7	12
188	Ab initio calculations of the electronic, structural and elastic properties of Nb2InC. *Computational Materials Science*, **2012**, 63, 227-231	3.2	12
187	First-principles calculations of the structural, electronic, optical and elastic properties of the CuYS2 semiconductor. *Journal of Physics Condensed Matter*, **2013**, 25, 345802	1.8	12
186	Electronic, optical and elastic properties of CuXS2 (X=Al, Ga, In) and AgGaS2 semiconductors from first-principles calculations. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 2582-2584		12
185	Comparative crystal field calculations of the Cr3+ energy level schemes in ZnAl2S4 and ZnGa2O4. *Journal of Materials Science: Materials in Electronics*, **2009**, 20, 30-32	2.1	12
184	Chapter 231 First-principles calculations of transition spectra. *Fundamental Theories of Physics*, **2007**, 1-59	0.8	12
183	Crystal Field Analysis of Cr3+Energy Levels in LiGa5O8Spinel. *Acta Physica Polonica A*, **2007**, 112, 1055-1060	0.6	12
182	Intense deep-red zero phonon line emission of Mn in double perovskite LaTiO. *Physical Chemistry Chemical Physics*, **2019**, 21, 25108-25117	3.6	12
181	Electronic structure and optical properties of magnesium tetraborate: An ab initio study. *Computational Materials Science*, **2016**, 124, 1-7	3.2	12
180	Luminescence of Bi3+ in the double perovskite, La2MgTiO6. *Optical Materials*, **2018**, 75, 809-813	3.3	12
179	Polycrystalline (Y0.7Gd0.3)2O3:Eu3+ ceramics fabricated by Spark Plasma Sintering: Densification and microstructure development. *Ceramics International*, **2014**, 40, 8853-8862	5.1	11
178	Phonon-assisted optical bands of nanosized powdery SrAl2O4:Eu2+ crystals: Evidence of a multimode Pekarian. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2013**, 377, 3170-3178	2.2	11
177	Concentration quenching in Ce3+-doped LED phosphors. *Journal of Luminescence*, **2013**, 133, 66-68	3.8	11

176	An ab initio study of the □direct□indirect band gap□transition in AlxIn1□xP alloys. *Solid State Communications*, **2015**, 205, 55-60	1.6	11
175	Electron-Vibrational Interaction in the 5d States of Eu2+Ions in Sr6-xEuxBP5O20(x = 0.01-0.15). *ECS Journal of Solid State Science and Technology*, **2014**, 3, R39-R42	2	11
174	First-principles calculations of the structural, elastic and electronic properties of MNxC1□x (M□=□Ti, Zr, Hf; 0□□x□□1) carbonitrides at ambient and elevated hydrostatic pressure. *Solid State Sciences*, **2014**, 28, 1-8	3.4	11
173	Judd□Ofelt analysis and optically stimulated two-photon absorption of Yb3+-doped NdAl3(BO3)4 single crystals. *Journal of Alloys and Compounds*, **2010**, 491, 26-29	5.7	11
172	Preparation and spectroscopic studies of the MgxSr1□xAl2O4:Eu, Dy (x = 0.05□0.25) persistent phosphors. *Optical Materials*, **2010**, 32, 1329-1332	3.3	11
171	Studies of variation of interionic distances and crystal field effects in ZnS:V2+ and MgO:Cr3+. *Optical Materials*, **2010**, 32, 1668-1670	3.3	11
170	Spectroscopic studies of emission and absorption properties of 38PbO-62SiO2:Nd3+ glass. *Optical Materials*, **2010**, 32, 1592-1596	3.3	11
169	Analysis of optical spectra of V2+ centres in ZnS and ZnSe single crystals. *Physica Status Solidi (B): Basic Research*, **2008**, 245, 163-169	1.3	11
168	Nephelauxetic effect for the isoelectronic 3d3-ions (Cr3+, Mn4+, Fe5+) in SrTiO3. *Journal of Physics and Chemistry of Solids*, **2006**, 67, 1599-1604	3.9	11
167	Comparative first-principles analysis of the absorption spectra of ZnAl2S4 and ZnGa2O4 crystals doped with Cr3+. *European Physical Journal B*, **2006**, 49, 269-274	1.2	11
166	Luminescence characteristics of Er3+ ions in ZnO-Ta2O5/Nb2O5/ZrO2-B2O3 glass system- A case study of energy transfer from ZnO to Er3+ ions. *Optical Materials*, **2018**, 86, 87-94	3.3	11
165	Ionicity and birefringence of □LiNH4SO4 crystals: ab initio DFT study, X-ray spectroscopy measurements. *RSC Advances*, **2017**, 7, 6889-6901	3.7	10
164	Ab initio calculations of the electronic structure and specific optical features of □-LiNH 4 SO 4 single crystals. *Physica B: Condensed Matter*, **2018**, 528, 37-46	2.8	10
163	Spectroscopic properties of Eu-doped Y-stabilized ZrO2 microtubes. *Journal of Luminescence*, **2014**, 152, 125-128	3.8	10
162	Influence of valence states and co-ordination of cobalt ions on dielectric properties of PbOBi2O3As2O3:CoO glass system. *Physica B: Condensed Matter*, **2012**, 407, 581-588	2.8	10
161	Comparative first-principles analysis of undoped and Co2+-doped □ZnAl2S4. *Journal of Alloys and Compounds*, **2013**, 550, 103-108	5.7	10
160	Spectroscopy of YAl3(BO3)4:Cr3+ crystals following first principles and crystal field calculations. *Philosophical Magazine*, **2010**, 90, 4569-4578	1.6	10
159	5f□6d orbital hybridization of trivalent uranium in crystals of hexagonal symmetry: Effects on electronic energy levels and transition intensities. *Physical Review B*, **2009**, 80,	3.3	10

158	Crystal field effects and electron–phonon interaction in K2LiAlF6:Cr3+. *Physica B: Condensed Matter*, **2010**, 405, 1244-1247	2.8	10
157	Temperature anomalies of emission spectra of Nd:Yb:La2CaB10O19 single crystals. *Current Opinion in Solid State and Materials Science*, **2008**, 12, 32-38	12	10
156	Two targets with one strategy: Insights into the role of aluminum atoms on the luminescence properties and thermal stability in Mn4+-doped calcium aluminozincate phosphor. *Journal of Alloys and Compounds*, **2020**, 849, 156567	5.7	10
155	Impacts of 5d electron binding energy and electron-phonon coupling on luminescence of Ce in LiY(BO).. *RSC Advances*, **2019**, 9, 7908-7915	3.7	9
154	First-principles and crystal-field calculations of the electronic and optical properties of two novel red phosphors Rb2HfF6:Mn4+ and Cs2HfF6:Mn4+. *Journal of the American Ceramic Society*, **2018**, 101, 2368-2375	3.8	9
153	Systematic analysis of spectroscopic characteristics of the lanthanide and actinide ions with the 4f and 5f (N= 1–14) electronic configurations in a free state. *Journal of Alloys and Compounds*, **2014**, 599, 93-101	5.7	9
152	Density functional studies of cubic elpasolites Cs2NaYX6 (X=F, Cl, Br) at ambient and elevated hydrostatic pressure. *Journal of Luminescence*, **2014**, 152, 49-53	3.8	9
151	Ab initio calculations of structural, electronic, optical, and elastic properties of pure and Yb-doped InP at varying pressure. *Journal of Applied Physics*, **2010**, 108, 103520	2.5	9
150	Crystal field parameters and energy level structure of the MnO_4^{3-} tetroxo anion in Li3PO4, Ca2PO4Cl and Sr5(PO4)3Cl crystals. *Journal of Luminescence*, **2009**, 129, 801-806	3.8	9
149	Spectroscopic and crystal field studies of (Ce,Gd)Sc3 (BO3)4:Cr3+ crystals. *Journal of Physics and Chemistry of Solids*, **2007**, 68, 1796-1804	3.9	9
148	Luminescent, optical and electronic properties of La3Ta0.5Ga5.5O14 single crystals grown in different atmospheres. *Journal of Luminescence*, **2016**, 177, 152-159	3.8	9
147	High pressure studies of Eu2+ and Mn2+ doped NaScSi2O6 clinopyroxenes. *RSC Advances*, **2017**, 7, 275-284	3.7	8
146	5d–4f emission of Eu2+ and electron-vibrational interaction in several alkaline earth sulfides doped with Eu2+ and Er3+. *Optical Materials*, **2015**, 50, 199-203	3.3	8
145	Spectroscopic investigations on SrAl2O4 polymorphs. *Journal of Luminescence*, **2015**, 159, 158-165	3.8	8
144	A short review of theoretical and empirical models for characterization of optical materials doped with the transition metal and rare earth ions. *Optical Materials*, **2018**, 79, 129-136	3.3	8
143	Theoretical analysis of optical spectra of Ce3+ in multi-sites host compounds. *Journal of Luminescence*, **2014**, 152, 203-205	3.8	8
142	Er–Pr doped tellurite glass nanocomposites for white light emitting diodes. *Optics Communications*, **2012**, 285, 655-658	2	8
141	First-principles calculations of the structural, electronic, optical and elastic properties of the new phosphors, Na2ZrF6 and K2ZrF6. *Solid State Sciences*, **2013**, 24, 30-35	3.4	8

140	First-principles calculations of structural and electronic properties of pure and Tm2+-doped SrCl2. *Physica Status Solidi (B): Basic Research*, **2013**, 250, 858-863	1.3	8
139	First-principles calculations of the structural, electronic and elastic properties of ZnWO4 and CdWO4 single crystals at the ambient and elevated pressure. *Materials Chemistry and Physics*, **2013**, 137, 977-983	4.4	8
138	Spectroscopic studies of KGd(WO4)2:Ho3+ single crystals. *Journal of Alloys and Compounds*, **2011**, 509, 1430-1435	5.7	8
137	Spectroscopic studies of the size effects in the absorption spectra of (NH2(C2H5)2)2CuCl4 nanocrystals incorporated into the PMMA photopolymer matrix. *Journal of Alloys and Compounds*, **2010**, 493, 26-30	5.7	8
136	Crystal growth and Judd□Ofelt analysis of novel Yb-doped RbNd(WO4)2 single crystals. *Materials Letters*, **2010**, 64, 295-297	3.3	8
135	Exchange charge model calculations of crystal field parameters and crystal field energy levels for [N(CH3)4]2CoCl4 and [N(CH3)4]2MnCl4 single crystals. *Journal of Alloys and Compounds*, **2008**, 459, 71-77	5.7	8
134	Microscopic Analysis of 5d States Splitting and Charge Transfer Energies Dependence on Interionic Distance in Alkaline Earth Fluorides Doped with Light Trivalent Lanthanides. *Spectroscopy Letters*, **2007**, 40, 221-235	1.1	8
133	First principles analysis of the MgAl2O4:Ni2+ absorption spectrum. *Journal of Luminescence*, **2007**, 124, 23-27	3.8	8
132	Energy Level Structure of LiYF4:Dy3+: Crystal Field Analysis. *Materials Transactions*, **2004**, 45, 2026-2030	1.3	8
131	Mn4+ Ions for Solid State Lighting. *Chinese Journal of Luminescence*, **2020**, 41, 1011-1029	1.4	8
130	Spectroscopic properties and martensitic phase transition of Y4Al2O9:Ce single crystals under high pressure. *Acta Materialia*, **2019**, 165, 346-361	8.4	8
129	Interpretation of the Spectroscopic Properties of □LiAlO2: Mn4+. *ECS Journal of Solid State Science and Technology*, **2018**, 7, R3012-R3015	2	8
128	Vacuum referred binding energy scheme for rare earth ions in RE 2 BaZnO 5 [RE□=□Y, Gd, La]. *Optical Materials*, **2017**, 70, 57-62	3.3	7
127	Tl4CdI6 □Wide band gap semiconductor: First principles modelling of the structural, electronic, optical and elastic properties. *Materials Chemistry and Physics*, **2015**, 163, 562-568	4.4	7
126	Optical properties of SrSi2O2N2:Eu2+ phosphor enhanced by the addition of carbonate or fluoride reactive agents. *Journal of Alloys and Compounds*, **2020**, 845, 155468	5.7	7
125	First-principles analysis of physical properties anisotropy for the Ag2SiS3 chalcogenide semiconductor. *Journal of Alloys and Compounds*, **2020**, 826, 154232	5.7	7
124	Origin of anisotropy of the near band gap absorption in Tl4HgBr6 single crystals. *Journal of Materials Chemistry C*, **2014**, 2, 2779	7.1	7
123	Optical spectroscopy, thermal quenching and electron□ibrational interaction of the octahedrally coordinated Eu2+ ion in CaAl2B2O7 and BaAl2B2O7. *Optical Materials*, **2014**, 37, 404-409	3.3	7

122	Tailoring the electronic and elastic properties by varying the composition of the CuGa1−xAlxS2chalcopyrite semiconductor. *Journal Physics D: Applied Physics*, **2013**, 46, 285304	3	7
121	Luminescence of Eu3+ and Pr3+ in the weberite, Ca2La3Sb3O14. *Optical Materials*, **2014**, 38, 248-251	3.3	7
120	Dispersion of the linear and nonlinear optical susceptibilities of the CuAl(S1−xSex)2 mixed chaclcopyrite compounds. *Journal of Applied Physics*, **2014**, 116, 103501	2.5	7
119	Changes of fluorescent spectral features after successive rare earth doping of gadolinium oxide powders. *Journal of Alloys and Compounds*, **2012**, 511, 221-225	5.7	7
118	Specific features of fluorescence kinetics of BiBO:Dy3+ glasses. *Journal of Alloys and Compounds*, **2012**, 520, 89-92	5.7	7
117	() compounds: Common and different features as uncovered by the first-principles calculations. *Solid State Communications*, **2010**, 150, 1529-1533	1.6	7
116	Optical absorption measurements and quantum-chemical simulations of optical properties of novel fluoro derivatives of pyrazoloquinoline. *Chemical Physics*, **2010**, 370, 194-200	2.3	7
115	Comparative study of the absorption spectrum of Li2CaSiO4:Cr4+: First-principles fully relativistic and crystal field calculations. *Optical Materials*, **2007**, 30, 399-406	3.3	7
114	Comparative study of the Jahn−Teller effect in the 4T2g excited electron state of Cr3+ ion in elpasolite crystals. *Journal of Molecular Structure*, **2007**, 838, 198-202	3.4	7
113	Comparative first-principles analysis of crystal field splitting, charge transfer energies and covalent effects for Cr2+ and Fe2+ ions in II−VI and III−V compounds. *Journal of Materials Science: Materials in Electronics*, **2007**, 18, 221-224	2.1	7
112	Fully relativistic analysis of the absorption spectra of Ca3Sc2Ge3O12:Ni2+. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 2864-2873	1.3	7
111	Crystal Field Analysis, Electron-Phonon Coupling and Spectral Band Shape Modeling in MgO:Cr3+. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2005**, 60, 437-443	1.4	7
110	Non-radiative transitions in the oscillating field model. *Journal of Luminescence*, **2000**, 92, 133-137	3.8	7
109	Ab Initio Calculations of the Structural, Electronic and Elastic Properties of the MZN2 (M = Be, Mg; Z = C, Si) Chalcopyrite Semiconductors. *Science of Advanced Materials*, **2016**, 8, 466-475	2.3	7
108	Luminescence properties of Eu2+-activated NaCaBeSi2O6F for white light-emitting diode applications. *Materials Research Bulletin*, **2018**, 100, 26-31	5.1	7
107	Temperature dependence of the Cr3+-DOPED Mg2TiO4 near-infrared emission. *Optical Materials*, **2021**, 120, 111468	3.3	7
106	Zone-center phonons and elastic properties of ternary chalcopyrite ABSe2 (A = Cu and Ag; B = al, Ga and In). *Materials Chemistry and Physics*, **2019**, 227, 324-331	4.4	6
105	Modeling the lattice parameters of zircon-type MXO4 (M=divalent, trivalent or tetravalent metal, X=V, P, As, Si) crystals. *Journal of Solid State Chemistry*, **2015**, 230, 49-55	3.3	6

104	Calculations of the electronic levels, spin-Hamiltonian parameters and vibrational spectra for the CrCl3 layered crystals. *Physica B: Condensed Matter*, **2015**, 478, 31-35	2.8	6
103	Control of Luminescence by Tuning of Crystal Symmetry and Local Structure in Mn4+-Activated Narrow Band Fluoride Phosphors. *Angewandte Chemie*, **2018**, 130, 1815-1819	3.6	6
102	Development of persistent phosphor of Eu2+ doped Ba2SiO4 by Er3+ codoping based on vacuum referred binding energy diagram. *Optical Materials*, **2018**, 84, 436-441	3.3	6
101	Local coordination, electronic structure, and thermal quenching of Ce3+ in isostructural Sr2GdAlO5 and Sr3AlO4F phosphors. *Journal of the American Ceramic Society*, **2019**, 102, 1316-1328	3.8	6
100	Pressure coefficients of the photoluminescence of the II□VI semiconducting quantum dots grown by molecular beam epitaxy. *Journal of Luminescence*, **2012**, 132, 1501-1506	3.8	6
99	Comparative first-principle analysis of un-doped and V3+-doped □ZnAl2S4 spinel. *Journal of Luminescence*, **2012**, 132, 2489-2494	3.8	6
98	Theoretical studies of the pressure-induced zinc-blende to cinnabar phase transition in CdTe and thermodynamical properties of each phase. *Materials Chemistry and Physics*, **2013**, 140, 216-221	4.4	6
97	Optical properties of Ge28Ga6.2S65.3:Er0.5 glass: Stark levels and optical gain coefficient. *Journal of Non-Crystalline Solids*, **2013**, 377, 90-94	3.9	6
96	Analysis of spectra of neat and lanthanide ion-doped KPb2Cl5 excited by synchrotron radiation. *Physica Status Solidi (B): Basic Research*, **2012**, 249, 581-587	1.3	6
95	Spectroscopy of gadolinium gallium garnet crystals doped with Yb(3+) revisited. *Journal of Physics Condensed Matter*, **2010**, 22, 255501	1.8	6
94	All-optical operation by optical susceptibilities of Ca4NdO(BO3)3:Yb single crystals. *Journal of Modern Optics*, **2010**, 57, 657-661	1.1	6
93	Modeling of Optical Properties of 3d and 4f Ions. *ECS Transactions*, **2009**, 25, 25-37	1	6
92	Spectroscopic studies of Nd3+ and Er3+ in KGd(WO4)2 single crystals. *Journal of Luminescence*, **2010**, 130, 623-630	3.8	6
91	Specific features of absorption and DSC for the DEA-CuCl4 nanoparticles incorporated into the PMMA polymer matrices. *Physica B: Condensed Matter*, **2008**, 403, 2561-2566	2.8	6
90	Cr3+ luminescence quenching in stoichiometric lithium niobate crystals. *Journal of Non-Crystalline Solids*, **2006**, 352, 2395-2398	3.9	6
89	Manifestation of vibronic interaction in the fine structure of Cr3+ energy levels in laser crystal LiCaAlF6:Cr3+. *Journal of Luminescence*, **2003**, 102-103, 81-84	3.8	6
88	Crystal field analysis of the ground and excited state absorption of a Cr4+ ion in LiAlO2 and LiGaO2 crystals. *Open Physics*, **2005**, 3,	1.3	6
87	Mixed vanadates: Optimization of optical properties by varying chemical composition. *Journal of Luminescence*, **2017**, 189, 140-147	3.8	5

86	Site occupancy and spectroscopic properties of Mn4+ in double perovskites, La2MgGeO6. *Optical Materials*, **2019**, 94, 148-151	3.3	5
85	Intense hypersensitive luminescence of Eu3+-doped YSiO2N oxynitride with near-UV excitation. *Optical Materials*, **2018**, 83, 111-117	3.3	5
84	Ab Initio Calculations of the Structural and Electronic Properties of Ca2La3Sb3O14Weberite at Ambient and Elevated Hydrostatic Pressure. *ECS Journal of Solid State Science and Technology*, **2014**, 3, R1-R4	2	5
83	Systematic analysis of spectroscopic characteristics of the lanthanide and actinide ions with the 4fN15d and 5fN16d electronic configurations in a free state. *Journal of Alloys and Compounds*, **2014**, 603, 255-267	5.7	5
82	Analysis of vacuum ultraviolet electronic spectra of Ce3+ and Pr3+ ions in Ca9Lu(PO4)7: crystal-field calculations and simulation of optical spectra. *Journal of Physics Condensed Matter*, **2013**, 25, 165503	1.8	5
81	Crystal growth and spectroscopic studies of novel Yb-doped K5Nd(MoO4)4 single crystals. *Materials Letters*, **2010**, 64, 2363-2365	3.3	5
80	Energy levels of Cr4+ in YAG. *Journal of Luminescence*, **1997**, 72-74, 149-151	3.8	5
79	Comparative first-principles study of the Ni2+ absorption spectra and covalence effects in isostructural crystals NiCl2, NiBr2 and NiI2. *Physica B: Condensed Matter*, **2007**, 387, 69-76	2.8	5
78	First principles calculations of the L2,3-edge XANES spectra for V2O3. *Radiation Physics and Chemistry*, **2006**, 75, 1564-1570	2.5	5
77	Electron-phonon Coupling in the 4T2g Excited Electron State of Cs2GeF6:Mn4+. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2005**, 60, 54-60	1.4	5
76	Dependence of the Mn4+ spectroscopic properties on the host composition: Case study of stannate pyrochlores A2Sn2O7 (A = La, Gd, Y, Lu). *Journal of Luminescence*, **2020**, 218, 116834	3.8	5
75	The optical properties of Bi3+ and Sb3+ in YNbTiO6 analysed by means of DOS and semi-empirical calculations. *Journal of Materials Chemistry C*, **2020**, 8, 2086-2093	7.1	5
74	An old system revisited: Al2O3:Ti3+ - Microscopic crystal field effects explored by the crystal field and first-principles calculations. *Journal of Alloys and Compounds*, **2020**, 847, 156459	5.7	5
73	Luminescence of Mn4+ activated Li4Ti5O12. *Journal of Luminescence*, **2020**, 228, 117646	3.8	5
72	Effect of Temperature and High Pressure on Luminescence Properties of Mn3+ Ions in Ca3Ga2Ge3O12 Single Crystals. *Journal of Physical Chemistry C*, **2021**, 125, 5146-5157	3.8	5
71	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	1.4	4
70	Effects of composition on the properties of mixed CdSi1-xGexAs2 chalcopyrites as explored by the first-principles calculations. *Materials and Design*, **2017**, 126, 250-258	8.1	4
69	Optical spectrum of Mn4+ in Y2Ti2-xSnxO7 pyrochlore solid solution: R-line energy and intensity. *Optical Materials*, **2019**, 95, 109196	3.3	4

68	3P0 -f1D2 non-radiative relaxation control via IVCT state in Pr3+-doped Na2Ln2Ti3O10 (Ln=La, Gd) micro-crystals with triple-layered perovskite structure. *Journal of Luminescence*, **2019**, 213, 510-518	3.8	4
67	Hexagonal SrAlSiO:Eu,Dy transparent ceramics with tuneable persistent luminescence properties. *Dalton Transactions*, **2020**, 49, 16849-16859	4.3	4
66	Anomalous photoluminescence from a K2LiInF6:Mn4+ phosphor. *Journal of Materials Chemistry C*, **2020**, 8, 8085-8090	7.1	4
65	Origin of the □1 parameter describing the nephelauxetic effect in transition metal ions with spin-forbidden emissions. *Journal of Luminescence*, **2018**, 197, 142-146	3.8	4
64	ErPr tellurite glasses as promising materials for white light emitting diodes. *Journal of Materials Science: Materials in Electronics*, **2012**, 23, 631-634	2.1	4
63	Characterization of blue-excited yellow phosphor (Y,Ca)6+x/3Si11(N,O)21:Ce by the bond valence sum model. *RSC Advances*, **2017**, 7, 40152-40157	3.7	4
62	Size and nonlinear optical effects of ferroic organic nanocomposites. *Applied Physics A: Materials Science and Processing*, **2011**, 104, 721-726	2.6	4
61	Laser induced effects in PbOBi2O3Ga2O3BaO: Eu glasses. *Optics Communications*, **2010**, 283, 3049-30512		4
60	A complex first-principles study of the L2,3-edge XANES spectra and crystal field effects for divalent 3d ions in cubic ZnS. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 2568-2577	3.9	4
59	JahnTeller effect in the 4T2g excited state of Cr3+ ion in Cs2NaYF6 crystal. *Journal of Luminescence*, **2008**, 128, 982-984	3.8	4
58	ON THE CRYSTAL FIELD ANALYSIS OFCr4+ENERGY LEVELS INRb2CrF6. *Modern Physics Letters B*, **2006**, 20, 1007-1014	1.6	4
57	Fine structure of V2+ energy levels in CsCaF3:V2+. *Journal of Luminescence*, **2004**, 108, 319-322	3.8	4
56	Non-radiative transitions in the anharmonic oscillating field model. *Physica B: Condensed Matter*, **2005**, 364, 170-179	2.8	4
55	First-principles investigations of geometrical and electronic structures of Mn4+ doped A2SiF6 (A= K, Rb, Cs) red phosphors. *Optical Materials*, **2021**, 115, 110986	3.3	4
54	Emission features of Er3+ ions in an exotic SeO2 based glass system. *Journal of Non-Crystalline Solids*, **2021**, 556, 120558	3.9	4
53	Optical absorption spectra and g factor of MgO: Mn2+explored by ab initio and semi empirical methods. *Journal of Physics and Chemistry of Solids*, **2018**, 113, 194-200	3.9	4
52	Rare-earth ions incorporation into Lu2Si2O7 scintillator crystals: Electron paramagnetic resonance and luminescence study. *Optical Materials*, **2020**, 106, 109930	3.3	3
51	Influence of low-symmetry component of crystal field on gemstones colors: Cr3+ in ruby and emerald. *Journal of Luminescence*, **2020**, 221, 117061	3.8	3

50	First-principle calculations of the structural, elastic and bonding properties of Cs2NaLnCl6 (Ln=La□u) cubic elpasolites. *Journal of Luminescence*, **2016**, 169, 415-418	3.8	3
49	Inhomogenous Broadening, Charge Compensation, and Luminescence Quenching in Ce3+-Doped Sr3AlO4F Phosphors. *ECS Journal of Solid State Science and Technology*, **2016**, 5, R3089-R3095	2	3
48	Ab initio analysis of the optical spectra and EPR parameters of Ni2+ ions in CaF2 and CdF2 crystals. *Journal of Luminescence*, **2019**, 214, 116577	3.8	3
47	First-principles calculations of structural, electronic, and elastic properties of MgZrSi2O7. *Materials Chemistry and Physics*, **2012**, 132, 6-9	4.4	3
46	Calculation of the spectral, structural, and electronic properties of NaCrSi2O6 and LiCrSi2O6 crystals. *Optical Materials*, **2013**, 35, 1772-1775	3.3	3
45	Ab initio analysis of the optical, electronic and elastic properties of the hydrogen-storage single crystals LiNH2. *Materials Chemistry and Physics*, **2011**, 130, 685-689	4.4	3
44	Numerical Calculations of the Overlap Integrals Between the Wave Functions of 3d Ions and Ligands **2009**,		3
43	Spectroscopic study of the Pr-doped BiBO glass and Ca4GdO(BO3)3 single crystals. *Journal of Rare Earths*, **2009**, 27, 612-615	3.7	3
42	First-Principles Analysis of the Rb2CrF6 Absorption Spectrum. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2006**, 61, 293-298	1.4	3
41	AgGaTe2 □The thermoelectric and solar cell material: Structure, electronic, optical, elastic and vibrational features. *Infrared Physics and Technology*, **2020**, 111, 103476	2.7	3
40	The influence of nd0 transition metal cations on the Eu3+ asymmetry ratio R=I(5D0□F2)I(5D0□F1) and crystal field splitting of 7F1 manifold in pyrochlore and zircon compounds. *Optical Materials*, **2021**, 114, 110931	3.3	3
39	Absorption, fluorescence and second harmonic generation in Cr□+-doped BiBO□□glasses. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2015**, 145, 325-328	4.4	2
38	Vibrational and elastic properties of silicate spinels A 2 SiO 4 (A = Mg, Fe, Ni, and Co). *Journal of Physics and Chemistry of Solids*, **2018**, 117, 167-172	3.9	2
37	Comparative crystal field study of Ni2+ energy levels and crystal field effects in CsCdBr3 and CsMgBr3 crystals. *Journal of Luminescence*, **2014**, 145, 563-568	3.8	2
36	Specific features of Tm3+ doped BiB3O6 glasses fluorescence spectra and their kinetics. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2012**, 87, 151-4	4.4	2
35	Analysis of f□ excitation spectra of heavy lanthanide ions in various crystals based on the simple model for f□ transition and its correction caused by the 5d spin□orbit interaction. *Journal of Luminescence*, **2013**, 133, 39-44	3.8	2
34	Electronic structure of Ce3+ in yttrium and lutetium orthoaluminate crystals and single crystal layers. *Journal of Alloys and Compounds*, **2017**, 723, 157-163	5.7	2
33	On the excitation spectra of Cr3+/Cr2+ and V3+ co-doped ZnAl2S4 single crystals. *Journal of Luminescence*, **2015**, 166, 282-288	3.8	2

32	Spectral kinetics of fluorescence spectra of fluoroderivatives of pyrazoloquinoline in different polymer matrices. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2014**, 120, 494-8	4.4	2
31	Investigations of g factors for the E state of V+ ions in AlO crystals. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2012**, 97, 50-3	4.4	2
30	Electronic and optical properties of ZnCr2Se4 as explored by first principles and crystal field calculations. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 2585-2588		2
29	Photothermally Induced Bistability of Emission of Yb-doped Ca4NdO(BO3)3 Single Crystals. *Spectroscopy Letters*, **2010**, 43, 389-392	1.1	2
28	Effect of the odd intensity parameters and optical properties of Tb3+ doped fluoroindate glasses. *Journal of Materials Science: Materials in Electronics*, **2009**, 20, 230-234	2.1	2
27	On the Mn4+ R-line Intensity and energy in the perovskite layer of SrLaAlO4 and Sr2TiO4: A comparative study with LaAlO3 and SrTiO3. *Optical Materials*, **2020**, 109, 110372	3.3	2
26	Nd3+-Doped Lead Boro Selenate Glass: A New Efficient System for Near-Infrared 1.06 m Laser Emission. *Physica Status Solidi (A) Applications and Materials Science*, **2020**, 217, 2000602	1.6	2
25	Effects of chemical composition on the structural stability, elastic, vibrational, and electronic properties of Cs2NaLnX6 (Ln=La–Lu, X=F, Cl, Br, I) elpasolites. *Journal of the American Ceramic Society*, **2021**, 104, 1489-1500	3.8	2
24	Structure, luminescence of Eu and Eu in CaMgSiO and their co-existence for the excitation-wavelength/temperature driven colour evolution. *Dalton Transactions*, **2021**, 50, 10050-10058	4.3	2
23	3d Ions in Solids and Microscopic Crystal Field Effects: Theoretical Analysis and Relations with Experimental Spectroscopic Data. *IOP Conference Series: Materials Science and Engineering*, **2020**, 835, 012032	0.4	1
22	Energy band structure and optical band gap calculations of AgSbO3 photo-catalystic pyrochlore crystal phase embedded in Ag2O doped sodium antimonate glass ceramics. *Optik*, **2020**, 206, 164345	2.5	1
21	Semi-empirical andab initioDFT modeling of the spin-Hamiltonian parameters for Fe6+: K2MO4(M = S, Cr, Se). *Physica Scripta*, **2014**, T162, 014020	2.6	1
20	Electronic structure of ytterbium-implanted GaN at ambient and high pressure: experimental and crystal field studies. *Journal of Physics Condensed Matter*, **2012**, 24, 095803	1.8	1
19	First-principles calculations of structural, electronic, optical, elastic properties and microscopic crystal field effects in Rb2CrF6. *Computational Materials Science*, **2011**, 50, 2482-2487	3.2	1
18	Photoinduced features of Y3Fe5 O12 nanocrystalline films. *Physica E: Low-Dimensional Systems and Nanostructures*, **2011**, 44, 435-439	3	1
17	Jahn–Teller effect and electron–phonon interaction in the excited state of ion in crystal. *Solid State Communications*, **2009**, 149, 2070-2073	1.6	1
16	Ab initiocalculations of the structural, electronic and elastic properties of K3CrF6. *Physica Scripta*, **2012**, T149, 014065	2.6	1
15	First-principles calculations of parameters of electron-vibrational interaction and estimations of Jahn–Teller stabilization energy for Cr3+ ion in elpasolites. *Journal of Molecular Structure*, **2007**, 838, 193-197	3.4	1

14	Special features of the phonon spectrum and non-radiative transitions in the Cr3+ -doped ionic□ovalent crystals. *Solid State Communications*, **2008**, 146, 298-303	1.6	1
13	Luminescence of Mn4+ in the orthorhombic perovskites, AZrO3 (A=Ca, Sr). *Optical Materials*, **2021**, 114, 110906	3.3	1
12	Theoretical and Experimental Investigations of Mn4+ Site Occupation in CaAl12O19. *ECS Journal of Solid State Science and Technology*, **2021**, 10, 076004	2	1
11	Study of electron-vibrational interaction in 5d states of Ce3+ ions in the chloroapatite system. *Materials Chemistry and Physics*, **2016**, 179, 266-272	4.4	1
10	Locating impurity and defect levels in the host band gap by first-principles calculations: Pure and Ce3+-doped YAlO3. *Optical Materials*, **2021**, 113, 110843	3.3	1
9	Impact of anionic system modification on the desired properties for CuGa(S1□e)2 solid solutions. *Computational Materials Science*, **2021**, 196, 110553	3.2	1
8	First-Principles Study of Optical Absorption Energies, Ligand Field and Spin-Hamiltonian Parameters of Cr Ions in Emeralds.. *Inorganic Chemistry*, **2021**,	5.1	1
7	Zeeman splitting features of electronic states of rare earth ions in TbF3 crystal. *Optical Materials*, **2021**, 117, 111141	3.3	0
6	First-principles studies of the structural, electronic, and optical properties of a novel thorium compound Rb2Th7Se15. *Journal of Solid State Chemistry*, **2014**, 212, 37-41	3.3	
5	First principles and crystal field calculations of the spectral, structural and electric properties of (Na, Li)VSi2O6clinopyroxenes crystals. *Physica Scripta*, **2014**, T162, 014021	2.6	
4	First-principles calculations of the V3+ absorption spectra in LiAlO2 and LiGaO2. *Journal of Non-Crystalline Solids*, **2006**, 352, 2376-2379	3.9	
3	Continuum limit theory of absorption in the presence of dissipation. *New Journal of Physics*, **2005**, 7, 22-22	2.9	
2	First-Principles Calculations of Pressure Effects on the Structural, Electronic, Elastic, and Thermodynamic Properties of Rb 2 M F 6 (M = Si, Ni, Pd) Crystals. *Physica Status Solidi (B): Basic Research*,2100607	1.3	
1	Influence of Au, Ag, and Cu Adatoms on Optical Properties of TiO2 (110) Surface: Predictions from RT-TDDFT Calculations. *Crystals*, **2022**, 12, 452	2.3	