Gary W Burdick

List of Publications by Year
in descending order

59 papers	1,395 citations	331259 21 h-index	344852 36 g-index
60 all docs	60 docs citations	60 times ranked	1008 citing authors

#	Article	IF	Citations
1	4fnâ†'4fnâ^'15dtransitions of the heavy lanthanides:â€ƒExperiment and theory. Physical Review B, 2002, 65, .	1.1	205
2	A complete energy level diagram for all trivalent lanthanide ions. Journal of Solid State Chemistry, 2005, 178, 448-453.	1.4	141
3	Energy-level and line-strength analysis of optical transitions between Stark levels inNd3+:Y3Al5O12. Physical Review B, 1994, 50, 16309-16325.	1.1	85
4	A new contribution to spinâ€forbidden rare earth optical transition intensities: Gd3+ and Eu3+. Journal of Chemical Physics, 1988, 89, 1787-1797.	1.2	77
5	4fnâ^'15dâ†'4fn emission of Ce3+, Pr3+, Nd3+, Er3+, and Tm3+ in LiYF4 and YPO4. Physical Review B, 2005, 71, .	1.1	61
6	Spectroscopic and magnetic susceptibility analyses of the 7FJ and 5D4 energy levels of Tb3+(4f8) in TbAlO3. Journal of Luminescence, 2008, 128, 1271-1284.	1.5	51
7	A new contribution to spinâ€forbidden rare earth optical transition intensities: Analysis of all trivalent lanthanides. Journal of Chemical Physics, 1989, 91, 1511-1520.	1.2	47
8	Spectra, energy levels, and symmetry assignments for Stark components of Eu3+(4f6) in gadolinium gallium garnet (Gd3Ga5O12). Journal of Luminescence, 2011, 131, 1945-1952.	1.5	42
9	Crystal field parametrizations for low symmetry systems. Molecular Physics, 2004, 102, 1141-1147.	0.8	39
10	Electronic absorption spectra, optical line strengths, and crystal-field energy-level structure of Nd3+ in hexagonal [Nd(H2O)9](CF3SO3)3. Chemical Physics, 1995, 201, 321-342.	0.9	36
11	Luminescence spectroscopy of high-energy 4f11levels of Er3+in fluorides. Molecular Physics, 2003, 101, 1047-1056.	0.8	33
12	Analyses of the ultraviolet spectra of Er3+ in Er2O3 and Er3+ in Y2O3. Journal of Applied Physics, 2010, 108, .	1.1	31
13	Application of the correlation-crystal-field delta-function model in analyses of Pr3+(4f2) energy-level structures in crystalline hosts. Chemical Physics, 1998, 228, 81-101.	0.9	28
14	Spectroscopic analysis of Eu3+ in single-crystal hexagonal phase AlN. Journal of Applied Physics, 2011, 110, .	1.1	27
15	Analyses of 4f11Energy Levels and Transition Intensities Between Stark Levels of Er3+in Y3Al5O12. Spectroscopy Letters, 2010, 43, 406-422.	0.5	26
16	Many-body perturbation theory for spin-forbidden two-photon spectroscopy off-element compounds and its application toEu2+inCaF2. Physical Review B, 2002, 66, .	1.1	24
17	Many-body perturbation theory calculations of two-photon absorption in lanthanide compounds. Physical Review Letters, 1993, 70, 2491-2494.	2.9	23
18	Ambiguities in the parametrization of4fNâ^'4fNelectric-dipole transition intensities. Physical Review B, 1999, 59, R7789-R7792.	1.1	23

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19	High-resolution measurements of the vacuum ultraviolet energy levels of trivalent gadolinium by excited state excitation. Physical Review B, 2005, 71, .	1.1	23
20	Stable multiply charges molecular ions. Journal of Physics B: Atomic and Molecular Physics, 1986, 19, 629-641.	1.6	22
21	Specific features of Eu3+ and Tb3+ magnetooptics in gadolinium-gallium garnet (Gd3Ga5O12). Journal of Rare Earths, 2011, 29, 776-782.	2.5	22
22	Energy levels and symmetry assignments for Stark components of Ho3+(4f10) in yttrium gallium garnet (Y3Ga5O12). Journal of Applied Physics, 2009, 106, .	1.1	21
23	Optical and magnetooptical properties of terbiumâ€“scandiumâ€“aluminum and terbium-containing (gallates and aluminates) garnets. Journal of Luminescence, 2016, 176, 86-94.	1.5	20
24	Correlation contributions to two-photon lanthanide absorption intensities: direct calculations for Eu2+ions. Journal of Physics Condensed Matter, 1993, 5, L323-L328.	0.7	18
25	Modeling optical spectra and Van Vleck paramagnetism in Er3+:YAlO3. Journal of Applied Physics, 2009, 105, .	1.1	17
26	Analysis of the optical and magnetooptical spectra of non-Kramers Pr3+(4f2) in Y3Al5O12 complemented by crystal-field modelling. Journal of Luminescence, 2014, 145, 393-401.	1.5	17
27	Some interesting features of the Tb3+ magnetooptics in the paramagnetic garnets. Optical Materials, 2014, 36, 1101-1111.	1.7	16
28	Structures, energetics and fragmentation pathways of CnH22+ carbodications. International Journal of Mass Spectrometry and Ion Processes, 1985, 64, 315-333.	1.9	15
29	Direct calculation of lanthanide optical transition intensities Nd3+:YAG. Journal of Alloys and Compounds, 1995, 225, 115-119.	2.8	13
30	Doubly charged ion mass spectra of organophosphorus compounds. Organic Mass Spectrometry, 1985, 20, 343-350.	1.3	12
31	Juddâ€”Ofelt parametrizations for lanthanides: sensitivity analysis of multiple local minima. Molecular Physics, 2003, 101, 909-916.	0.8	12
32	The relationship between perturbation theory and direct calculations of rare earth transition intensities. Journal of Alloys and Compounds, 1994, 207-208, 78-82.	2.8	11
33	Optical and magnetooptical properties of Ho³⁺:YGG. Physica Status Solidi (B): Basic Research, 2010, 247, 163-169.	0.7	11
34	Growth and magnetooptical properties of anisotropic TbF3 single crystals. Journal of Applied Physics, 2017, 121, .	1.1	11
35	Burdick and Reid reply. Physical Review Letters, 1993, 71, 3892-3892.	2.9	10
36	Faraday effect and magnetic susceptibility analyses in TbAlO3. Journal of Applied Physics, 2008, 104, .	1.1	10

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37	F07â†'5DJtwo-photon-absorption transitions ofSm2+inSrF2. Physical Review B, 1993, 47, 11712-11716.	1.1	9
38	Correlation-crystal-field `Î´-function' analysis of Pr3+(4f2) energy-level structure. Journal of Alloys and Compounds, 1997, 250, 293-296.	2.8	9
39	Comparison between correlation crystal field calculations using extended basis sets and two-electron operators. Journal of Alloys and Compounds, 2001, 323-324, 636-639.	2.8	9
40	Simulation of two-photon absorption spectra of by direct calculation. Journal of Luminescence, 2006, 118, 205-219.	1.5	9
41	Chapter 232 â€“ transitions. Fundamental Theories of Physics, 2007, 37, 61-98.	0.1	9
42	Crystal-field analysis and Zeeman splittings of energy levels of Nd3+ (4f3) in GaN. Journal of Applied Physics, 2011, 110, .	1.1	9
43	Correlation-crystal-field delta-function analysis of 4f2 (Pr3+) energy-level structure. Journal of Alloys and Compounds, 1998, 275-277, 379-383.	2.8	8
44	Electric-dipole 4fnâ€“4fn transition intensity parametrizations for lanthanides: sensitivity analysis of multiple local minima. Journal of Alloys and Compounds, 2002, 344, 327-331.	2.8	8
45	Intensity parametrizations for electric-dipole transitions between Stark components in Er3+:Y3Al5O12. Journal of Alloys and Compounds, 2009, 488, 632-637.	2.8	8
46	Fabrication and absorption intensity analyses of Er₂O₃ nanoparticles suspended in polymethyl methacrylate. Journal of Applied Polymer Science, 2011, 122, 289-295.	1.3	8
47	Analysis of the spectra of trivalent erbium in multiple sites of hexagonal aluminum nitride. Optical Materials Express, 2012, 2, 1186.	1.6	6
48	Crystal field and Zeeman splittings for energy levels of Nd^3+ in hexagonal AlN. Optical Materials Express, 2012, 2, 1176.	1.6	5
49	Magnetooptics of non-Kramers Eu3+ ions in garnets: analysis complemented by crystal-field splitting modeling calculations. Journal of Rare Earths, 2013, 31, 837-842.	2.5	4
50	Magnetooptics of the luminescent transitions in Tb3+:Gd3Ga5O12. Optical Materials, 2015, 46, 282-291.	1.7	4
51	Electric-dipole 4fNâ€“4fN transition intensity parametrizations for lanthanides: an examination of multiple local minima. Journal of Alloys and Compounds, 2001, 323-324, 778-782.	2.8	3
52	Investigation of J â€“ J â€œmixingâ€•mechanism influence on optical and magnetooptical properties of praseodymium yttrium-aluminum garnet PrYAG. Journal of Luminescence, 2019, 207, 339-345.	1.5	3
53	Study of the line intensity in the optical and magnetooptical spectra in holmium-containing paramagnetic garnets. Optical Materials, 2016, 51, 42-49.	1.7	2
54	Polarizabilites of organic ions. Organic Mass Spectrometry, 1986, 21, 449-450.	1.3	1

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55	Magnetooptics of magnetic-dipole transitions in the rare-earth paramagnetic garnets. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2012, 112, 857-863.	0.2	1
56	Chirality-dependent two-photon absorption probabilities and circular dichroic line strengths: theory, calculation and measurement [Chemical Physics 208 (1996) 195â€“219]. Chemical Physics, 1996, 210, 515.	0.9	0
57	Polarization dependence of two-photon excitation spectra in the , , and transition regions of Gd3+ in Na3[Gd(C4H4O5)3] Â· 2NaClO4 Â· 6H2O. Journal of Luminescence, 1996, 69, 355-368.	1.5	0
58	Magnetooptics of non-kramers eu3+(4Æ’6) ions in garnets. , 2011, , .		0
59	Effect of the Jâ€“J Interaction of Excited States of the Rare-Earth Ion Pr3+ on Magnetically Polarized Luminescence of Praseodymium-Yttrium Aluminum Garnet. Physics of the Solid State, 2019, 61, 735-741.	0.2	0