# Gary W Burdick

List of Publications by Year
in descending order



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|---|---|---|---|
| 59 papers | 1,395 citations | 331670 21 h-index | 345221 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, . | 3.2 | 205 |
| 2 | A complete energy level diagram for all trivalent lanthanide ions. Journal of Solid State Chemistry, 2005, 178, 448-453. | 2.9 | 141 |
| 3 | Energy-level and line-strength analysis of optical transitions between Stark levels inNd3+:Y3Al5O12. Physical Review B, 1994, 50, 16309-16325. | 3.2 | 85 |
| 4 | A new contribution to spinâ€forbidden rare earth optical transition intensities: Gd3+ and Eu3+. Journal of Chemical Physics, 1988, 89, 1787-1797. | 3.0 | 77 |
| 5 | 4fnâ^'15dâ†'4fn emission of Ce3+, Pr3+, Nd3+, Er3+, and Tm3+ in LiYF4 and YPO4. Physical Review B, 2005, 71, . | 3.2 | 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. | 3.1 | 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. | 3.0 | 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. | 3.1 | 42 |
| 9 | Crystal field parametrizations for low symmetry systems. Molecular Physics, 2004, 102, 1141-1147. | 1.7 | 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. | 1.9 | 36 |
| 11 | Luminescence spectroscopy of high-energy 4f11levels of Er3+in fluorides. Molecular Physics, 2003, 101, 1047-1056. | 1.7 | 33 |
| 12 | Analyses of the ultraviolet spectra of Er3+ in Er2O3 and Er3+ in Y2O3. Journal of Applied Physics, 2010, 108, . | 2.5 | 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. | 1.9 | 28 |
| 14 | Spectroscopic analysis of Eu3+ in single-crystal hexagonal phase AlN. Journal of Applied Physics, 2011, 110, . | 2.5 | 27 |
| 15 | Analyses of 4f11Energy Levels and Transition Intensities Between Stark Levels of Er3+in Y3Al5O12. Spectroscopy Letters, 2010, 43, 406-422. | 1.0 | 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, . | 3.2 | 24 |
| 17 | Many-body perturbation theory calculations of two-photon absorption in lanthanide compounds. Physical Review Letters, 1993, 70, 2491-2494. | 7.8 | 23 |
| 18 | Ambiguities in the parametrization of4fNâ^'4fNelectric-dipole transition intensities. Physical Review B, 1999, 59, R7789-R7792. | 3.2 | 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, . | 3.2 | 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. | 4.8 | 22 |
| 22 | Energy levels and symmetry assignments for Stark components of Ho3+(4f10) in yttrium gallium garnet (Y3Ga5O12). Journal of Applied Physics, 2009, 106, . | 2.5 | 21 |
| 23 | Optical and magnetooptical properties of terbiumâ€“scandiumâ€“aluminum and terbium-containing (gallates and aluminates) garnets. Journal of Luminescence, 2016, 176, 86-94. | 3.1 | 20 |
| 24 | Correlation contributions to two-photon lanthanide absorption intensities: direct calculations for Eu2+ions. Journal of Physics Condensed Matter, 1993, 5, L323-L328. | 1.8 | 18 |
| 25 | Modeling optical spectra and Van Vleck paramagnetism in Er3+:YAlO3. Journal of Applied Physics, 2009, 105, . | 2.5 | 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. | 3.1 | 17 |
| 27 | Some interesting features of the Tb3+ magnetooptics in the paramagnetic garnets. Optical Materials, 2014, 36, 1101-1111. | 3.6 | 16 |
| 28 | Structures, energetics and fragmentation pathways of CnH22+ carbodications. International Journal of Mass Spectrometry and Ion Processes, 1985, 64, 315-333. | 1.8 | 15 |
| 29 | Direct calculation of lanthanide optical transition intensities Nd3+:YAG. Journal of Alloys and Compounds, 1995, 225, 115-119. | 5.5 | 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. | 1.7 | 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. | 5.5 | 11 |
| 33 | Optical and magnetooptical properties of Ho<sup>3+</sup>:YGG. Physica Status Solidi (B): Basic Research, 2010, 247, 163-169. | 1.5 | 11 |
| 34 | Growth and magnetooptical properties of anisotropic TbF3 single crystals. Journal of Applied Physics, 2017, 121, . | 2.5 | 11 |
| 35 | Burdick and Reid reply. Physical Review Letters, 1993, 71, 3892-3892. | 7.8 | 10 |
| 36 | Faraday effect and magnetic susceptibility analyses in TbAlO3. Journal of Applied Physics, 2008, 104, . | 2.5 | 10 |

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|---|---|---|---|
| 37 | F07â†'5DJtwo-photon-absorption transitions ofSm2+inSrF2. Physical Review B, 1993, 47, 11712-11716. | 3.2 | 9 |
| 38 | Correlation-crystal-field `Î´-function' analysis of Pr3+(4f2) energy-level structure. Journal of Alloys and Compounds, 1997, 250, 293-296. | 5.5 | 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. | 5.5 | 9 |
| 40 | Simulation of two-photon absorption spectra of by direct calculation. Journal of Luminescence, 2006, 118, 205-219. | 3.1 | 9 |
| 41 | Chapter 232 â€“ transitions. Fundamental Theories of Physics, 2007, 37, 61-98. | 0.3 | 9 |
| 42 | Crystal-field analysis and Zeeman splittings of energy levels of Nd3+ (4f3) in GaN. Journal of Applied Physics, 2011, 110, . | 2.5 | 9 |
| 43 | Correlation-crystal-field delta-function analysis of 4f2 (Pr3+) energy-level structure. Journal of Alloys and Compounds, 1998, 275-277, 379-383. | 5.5 | 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. | 5.5 | 8 |
| 45 | Intensity parametrizations for electric-dipole transitions between Stark components in Er3+:Y3Al5O12. Journal of Alloys and Compounds, 2009, 488, 632-637. | 5.5 | 8 |
| 46 | Fabrication and absorption intensity analyses of Er<sub>2</sub>O<sub>3</sub> nanoparticles suspended in polymethyl methacrylate. Journal of Applied Polymer Science, 2011, 122, 289-295. | 2.6 | 8 |
| 47 | Analysis of the spectra of trivalent erbium in multiple sites of hexagonal aluminum nitride. Optical Materials Express, 2012, 2, 1186. | 3.0 | 6 |
| 48 | Crystal field and Zeeman splittings for energy levels of Nd^3+ in hexagonal AlN. Optical Materials Express, 2012, 2, 1176. | 3.0 | 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. | 4.8 | 4 |
| 50 | Magnetooptics of the luminescent transitions in Tb3+:Gd3Ga5O12. Optical Materials, 2015, 46, 282-291. | 3.6 | 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. | 5.5 | 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. | 3.1 | 3 |
| 53 | Study of the line intensity in the optical and magnetooptical spectra in holmium-containing paramagnetic garnets. Optical Materials, 2016, 51, 42-49. | 3.6 | 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. | 0.6 | 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. | 1.9 | 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. | 3.1 | 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. | 0.6 | 0 |