Yau-yuen Yeung

List of Publications by Year
in descending order

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66 papers	1,586 citations	304743 22 h-index	330143 37 g-index
66 all docs	66 docs citations	66 times ranked	776 citing authors

#	Article	IF	Citations
1	Crystal field and microscopic spin Hamiltonians approach including spinâ€“spin and spinâ€“other-orbit interactions for d2 and d8 ions at low symmetry C3 symmetry sites: V3+ in Al2O3. Journal of Physics and Chemistry of Solids, 2003, 64, 1419-1428.	4.0	166
2	Ligand field analysis of the 3dN ions at orthorhombic or higher symmetry sites. Computers & Chemistry, 1992, 16, 207-216.	1.2	130
3	Microscopic spin Hamiltonian approaches for 3d8 and 3d2 ions in a trigonal crystal field - perturbation theory methods versus complete diagonalization methods. Journal of Physics Condensed Matter, 2002, 14, 5619-5636.	1.8	86
4	What Factors Affect the ⁵D₀ Energy of Eu³⁺? An Investigation of Nephelauxetic Effects. Journal of Physical Chemistry A, 2013, 117, 2771-2781.	2.5	76
5	Microscopic spin-Hamiltonian parameters and crystal field energy levels for the low C3 symmetry Ni2+ centre in LiNbO3 crystals. Physica B: Condensed Matter, 2004, 348, 151-159.	2.7	71
6	Theoretical investigations of the microscopic spin Hamiltonian parameters including the spinâ€“spin and spinâ€“other-orbit interactions for Ni2+(3d8) ions in trigonal crystal fields. Journal of Physics Condensed Matter, 2004, 16, 3481-3494.	1.8	60
7	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.	4.0	49
8	Ground and excited state absorption of Ni2+ ions in MgAl2O4: Crystal field analysis. Journal of Alloys and Compounds, 2007, 432, 61-68.	5.5	48
9	Crystal field analysis of the energy level structure of Cs2NaAlF6:Cr3+. Journal of Physics Condensed Matter, 2006, 18, 5221-5234.	1.8	42
10	Nephelauxetic Effects in the Electronic Spectra of Pr³⁺. Journal of Physical Chemistry A, 2013, 117, 10726-10735.	2.5	41
11	A Systematic Review of Remote Laboratory Work in Science Education with the Support of Visualizing its Structure through the HistCite and CiteSpace Software. International Journal of Science and Mathematics Education, 2017, 15, 1217-1236.	2.5	39
12	Crystal Field Energy Levels and State Vectors for the 3dN Ions at Orthorhombic or Higher Symmetry Sites. Journal of Computational Physics, 1993, 109, 150-152.	3.8	35
13	First-Principles Study of Bi³⁺-Related Luminescence and Electron and Hole Traps in (Y/Lu/La)PO₄. Inorganic Chemistry, 2021, 60, 4434-4446.	4.0	34
14	An experience of teaching for learning by observation: Remote-controlled experiments on electrical circuits. Computers and Education, 2009, 52, 702-717.	8.3	33
15	Structural Evolutions and Crystal Field Characterizations of Tm-Doped YAlO₃: New Theoretical Insights. ACS Applied Materials & Interfaces, 2016, 8, 30422-30429.	8.0	33
16	Theoretical investigation of the electronic structure and luminescence properties for Nd_xY_{1â^'x}Al₃(BO₃)₄nonlinear laser crystal. Journal of Materials Chemistry C, 2017, 5, 7174-7181.	5.5	30
17	Ninth Gradersâ€™ Learning Interests, Life Experiences and Attitudes Towards Science & Technology. Journal of Science Education and Technology, 2009, 18, 447-457.	3.9	28
18	New analyses of energy level datasets for LaCl3:Ln3+ (Ln=Pr, Nd, Er). Journal of Alloys and Compounds, 2013, 575, 54-60.	5.5	27

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19	Structure and luminescence properties of a Nd³⁺doped Bi₄Ge₃O₁₂scintillation crystal: new insights from a comprehensive study. Journal of Materials Chemistry C, 2017, 5, 3079-3087.	5.5	27
20	Effects of the parabolic potential and confined phonons on the polaron in a quantum wire. Physical Review B, 1992, 46, 4630-4637.	3.2	26
21	Spin Hamiltonian and structural disorder analysis for two high temperature Cr3+ defect centers in Î±-LiIO3 crystalsâ€”low symmetry effects. Journal of Physics and Chemistry of Solids, 2003, 64, 887-896.	4.0	24
22	Deciphering the Microstructure and Energy-Level Splitting of Tm³⁺-Doped Yttrium Aluminum Garnet. Inorganic Chemistry, 2019, 58, 1058-1066.	4.0	23
23	Crystal field levels and zero-field splitting parameters of Cr2+ in the mixed system Rb2MnxCr1âˆ’xCl4. Physica B: Condensed Matter, 1993, 191, 323-333.	2.7	22
24	New Theoretical Insights into the Crystal-Field Splitting and Transition Mechanism for Nd³⁺-Doped Y₃Al₅O₁₂. ACS Applied Materials & Interfaces, 2019, 11, 10745-10750.	8.0	22
25	xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mrow><mml -related luminescence and traps in the perovskites <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Ca</mml:mi><mml:mi>M</mml:mi><mml:msub><mml		

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37	Some Aspects of Configuration Interaction of the 4f^N Configurations of Tripositive Lanthanide Ions. Journal of Physical Chemistry A, 2014, 118, 8745-8752.	2.5	15
38	Trends in Atomic Parameters for Crystals and Free Ions across the Lanthanide Series: The Case of LaCl₃:Ln³⁺. Journal of Physical Chemistry A, 2015, 119, 6309-6316.	2.5	15
39	Effects of vacancies on valence stabilities of europium ions in Î²-Ca2SiO4: Eu phosphors. Journal of Luminescence, 2016, 178, 121-127.	3.1	15
40	Modeling Spectroscopic Properties of Ni2+ Ions in the Haldane Gap System Y2BaNiO5. Applied Magnetic Resonance, 2013, 44, 899-915.	1.2	14
41	Technology-Enhanced Physics Programme for Community-Based Science Learning: Innovative Design and Programme Evaluation in a Theme Park. Journal of Science Education and Technology, 2015, 24, 580-594.	3.9	13
42	Electron-confined phonon interaction in a quantum wire with parabolic potential. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 166, 377-382.	2.1	11
43	Crystal field levels and fine structure of the ground orbital state for high spin Fe2+ and Fe4+ ions in YBa2(Cu1â^'xFex)3O7â^'Î´. Journal of Physics and Chemistry of Solids, 1993, 54, 733-744.	4.0	11
44	Insights into the Microstructure and Transition Mechanism for Nd³⁺-Doped Bi₄Si₃O₁₂: A Promising Near-Infrared Laser Material. Inorganic Chemistry, 2018, 57, 4563-4570.	4.0	11
45	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.	5.5	11
46	An implementation of remote laboratory for secondary science education. Journal of Computer Assisted Learning, 2018, 34, 629-640.	5.1	9
47	Macroscopic study of the social networks formed in web-based discussion forums. , 2005, , .		9
48	A systematic study of the microstructure and laser characteristics of Pr3+-doped lithium lutetium fluoride. Journal of Alloys and Compounds, 2018, 749, 391-398.	5.5	7
49	Thermal stabilities, electronic structures and optical properties of intrinsic defects and dopant cerium in Ca4F2Si2O7. Journal of Alloys and Compounds, 2017, 713, 28-37.	5.5	6
50	Insights into the Microstructures and Energy Levels of Pr³⁺-Doped YAlO₃ Scintillating Crystals. Inorganic Chemistry, 2021, 60, 5107-5113.	4.0	6
51	The cyclotron mass and self-trapping energy of an interface polaron. Solid State Communications, 1992, 81, 325-328.	1.9	5
52	Identifying professional development environment for mentor teachers at a Learning Centre. Teacher Development, 2010, 14, 351-363.	0.7	5
53	Semi-empirical calculations of radiative rates for parity-forbidden transitions within the 4f2configuration of Ba-like ions La+, Ce2+, Pr3+and Nd4+and 4f12configuration of Dy-like Yb4+. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 145002.	1.5	5
54	Electronic Spectra of Cs₂NaYb(NO₂)₆: Is There Quantum Cutting?. Journal of Physical Chemistry A, 2018, 122, 4381-4388.	2.5	5

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55	Mechanisms of bismuth-activated near-infrared photoluminescence â€“ a first-principles study on the MXCl3 series. Physical Chemistry Chemical Physics, 2021, 23, 17420-17429.	2.8	5
56	Unveiling the Local Structure and Luminescence Mechanism of Er³⁺-Doped LiYF₄: A Promising Near-Infrared Laser Crystal. Journal of Physical Chemistry C, 2021, 125, 18015-18021.	3.1	5
57	Angular overlap and superposition models of the orbitâ€"lattice interaction. Chemical Physics Letters, 1985, 122, 415-417.	2.6	4
58	Spin parameters for the rare earth ion Gd3+ in some fluorite complexes. Journal of Alloys and Compounds, 1993, 193, 213-215.	5.5	4
59	First-principles calculations and re-analysis of optical spectra and electron paramagnetic resonance parameters for Yb3+ in YAl3(BO3)4 crystal. Journal of Rare Earths, 2017, 35, 254-258.	4.8	4
60	Modeling of Spin Hamiltonian Parameters for Vanadyl-Doped $${fhbox{K}_2hbox{SO}_4{-}hbox{Na}_2hbox{SO}_4{-}hbox{ZnSO}_4}$$ Glass. Applied Magnetic Resonance, 2011, 40, 441-448.	1.2	3
61	Decoupling transformation calculations of dynamical and vacancy-induced properties in FCC nickel metal. Journal of Physics and Chemistry of Solids, 1993, 54, 553-563.	4.0	2
62	Integrating Effective Pedagogies in Science Education with a Design of Alternative Experiments on Electromagnetics. Eurasia Journal of Mathematics, Science and Technology Education, 2014, 10, .	1.3	2
63	Geometric, electronic and optical properties of undoped and cerium-doped La5(Si2+B1â^')(O13â^'N) solid solutions: A theoretical investigation. Journal of Luminescence, 2017, 192, 1026-1032.	3.1	2
64	Ground state energy and effective mass of an interface polaron under strong electron-phonon interactions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 183, 418-424.	2.1	1
65	Chinese studentsâ€™ science-related experiences: Comparison of the ROSE study in Xinjiang and Shanghai. Research in Science and Technological Education, 2015, 33, 218-236.	2.5	1
66	Calculations of vacancy induced properties in palladium using the decoupling transformation approach. Solid State Communications, 1993, 85, 569-572.	1.9	0