

Luis Seijo

List of Publications by Year in descending order

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141
papers

7,279
citations

76326

40
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60623

81
g-index

156
all docs

156
docs citations

156
times ranked

4548
citing authors

#	ARTICLE	IF	CITATIONS
1	MOLCAS: a program package for computational chemistry. Computational Materials Science, 2003, 28, 222-239.	3.0	1,689
2	The ab initio model potential representation of the crystalline environment. Theoretical study of the local distortion on NaCl:Cu ⁺ . Journal of Chemical Physics, 1988, 89, 5739-5746.	3.0	373
3	Modern quantum chemistry with [Open]Molcas. Journal of Chemical Physics, 2020, 152, 214117.	3.0	281
4	The ab initio model potential method. Main group elements. Journal of Chemical Physics, 1987, 86, 2132-2145.	3.0	245
5	Resolving the ambiguity in the relation between Stokes shift and Huang-Rhys parameter. Physical Chemistry Chemical Physics, 2015, 17, 16959-16969.	2.8	226
6	The abinitio model potential method. Cowan's Griffin relativistic core potentials and valence basis sets from Li (Z=3) to La (Z=57). Canadian Journal of Chemistry, 1992, 70, 409-415.	1.1	214
7	Bonding between CO and the MgO(001) surface: A modified picture. Journal of Chemical Physics, 1994, 100, 2010-2018.	3.0	186
8	Ab initio model potential calculations on the electronic spectrum of Ni ²⁺ -doped MgO including correlation, spin-orbit and embedding effects. Journal of Chemical Physics, 1996, 105, 5321-5330.	3.0	135
9	Relativistic ab initio model potential calculations including spin-orbit effects through the Wood-Boring Hamiltonian. Journal of Chemical Physics, 1995, 102, 8078-8088.	3.0	101
10	Ab initio model potential study of the equilibrium geometry of alkaline earth dihalides: MX ₂ (M=Mg, Ca, Sr, Ba). Journal of Chemical Physics, 1990, 93, 1000-1006.	3.0	100
11	Broadband infrared LEDs based on europium-to-terbium charge transfer luminescence. Nature Communications, 2020, 11, 3647.	12.8	99
12	Absorption and Emission Spectra of Ce ³⁺ in Elpasolite Lattices. Journal of the American Chemical Society, 2003, 125, 13225-13233.	13.7	95
13	Ab initio calculations on the local structure and the 4f-5d absorption and emission spectra of Ce ³⁺ -doped YAG. Journal of Luminescence, 2008, 128, 1248-1254.	3.1	93
14	The Ab Initio Model Potential Method: A Common Strategy for Effective Core Potential and Embedded Cluster Calculations. Computational Chemistry - Reviews of Current Trends, 1999, , 55-152.	0.4	89
15	The ab initio model potential method. Second series transition metal elements. Journal of Chemical Physics, 1990, 93, 5843-5850.	3.0	86
16	Ab initio model potential study of environmental effects on the Jahn-Teller parameters of Cu ²⁺ and Ag ²⁺ impurities in MgO, CaO, and SrO hosts. Journal of Chemical Physics, 1993, 98, 9715-9724.	3.0	83
17	The ab initio model potential method. First series transition metal elements. Journal of Chemical Physics, 1989, 91, 7011-7017.	3.0	80
18	The ab initio model potential method: Lanthanide and actinide elements. Journal of Chemical Physics, 2001, 114, 118.	3.0	75

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19	Transferability of core potentials to f and d states of lanthanide and actinide ions. <i>Molecular Physics</i> , 2003, 101, 73-80.	1.7	75
20	Structural, electronic, and spectroscopic effects of Ga codoping on Ce-doped yttrium aluminum garnet: First-principles study. <i>Physical Review B</i> , 2010, 82, .	3.2	70
21	Configuration coordinate energy level diagrams of intervalence and metal-to-metal charge transfer states of dopant pairs in solids. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19874-19884.	2.8	64
22	Ab initio model potential embedded cluster calculations including lattice relaxation and polarization: Local distortions on Mn ²⁺ -doped CaF ₂ . <i>Journal of Chemical Physics</i> , 1995, 102, 5368-5376.	3.0	63
23	Geometry and electronic structure of M-DNA (M=Zn ²⁺ , Co ²⁺ , and Fe ²⁺). <i>Physical Review B</i> , 2006, 73, .	3.2	60
24	Quasirelativistic ab initio model potential calculations on the group IV hydrides (XH ₂ , XH ₄); Tj ETQqO 0 0 rgBT /Overlock 10 Tf 50 542 T	3.0	56
25	Intervalence charge transfer luminescence: Interplay between anomalous and $5d \rightarrow 4f$ emissions in Yb-doped fluorite-type crystals. <i>Journal of Chemical Physics</i> , 2014, 141, 234704.	3.0	56
26	Structural effects and $4f \rightarrow 5d$ shifts induced by La codoping in Ce-doped yttrium aluminum garnet: First-principles study. <i>Physical Review B</i> , 2010, 82, .	3.2	54
27	The ab initio model potential method: Third-series transition metal elements. <i>Journal of Chemical Physics</i> , 1999, 110, 784-796.	3.0	53
28	Electronic properties and $4f \rightarrow 5d$ transitions in Ce-doped Lu ₂ SiO ₅ : a theoretical investigation. <i>Journal of Materials Chemistry</i> , 2012, 22, 13723.	6.7	53
29	Broadband anti-Stokes white emission of Sr ₂ CeO ₄ nanocrystals induced by laser irradiation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27921-27927.	2.8	53
30	Quantum chemical analysis of the bond lengths in fn and $fn \rightarrow 1d1$ states of Ce ³⁺ , Pr ³⁺ , Pa ⁴⁺ , and U ⁴⁺ defects in chloride hosts. <i>Journal of Chemical Physics</i> , 2003, 119, 3785-3790.	3.0	52
31	Embedding Fragment ab Initio Model Potentials in CASSCF/CASPT2 Calculations of Doped Solids: Implementation and Applications. <i>Journal of Chemical Theory and Computation</i> , 2008, 4, 586-594.	5.3	50
32	Spin-free relativistic no-pair ab initio core model potentials and valence basis sets for the transition metal elements Sc to Hg. Part I. <i>Journal of Chemical Physics</i> , 1999, 110, 3678-3686.	3.0	49
33	Insights into the complexity of the excited states of Eu-doped luminescent materials. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 871-888.	6.0	49
34	Ab initio model potential study of local distortions around Cr ⁺ and Cr ³⁺ defects in fluorite. <i>Journal of Chemical Physics</i> , 1991, 94, 8158-8164.	3.0	48
35	Structure and spectroscopy of U ^[sup 4+] defects in Cs ₂ ZrCl ₆ : Ab initio theoretical studies on the $5f \rightarrow 5d$ and $5f \rightarrow 6d$ manifolds. <i>Journal of Chemical Physics</i> , 2003, 118, 7439.	3.0	46
36	Ce and La Single- and Double-Substitutional Defects in Yttrium Aluminum Garnet: First-Principles Study. <i>Journal of Physical Chemistry A</i> , 2011, 115, 815-823.	2.5	46

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37	Atomistic and electronic structure of antisite defects in yttrium aluminum garnet: Density-functional study. <i>Physical Review B</i> , 2009, 80, .	3.2	45
38	Ab initio theoretical studies on U ³⁺ and on the structure and spectroscopy of U ³⁺ substitutional defects in Cs ₂ NaYCl ₆ , 5f ² manifold. <i>Journal of Chemical Physics</i> , 2003, 118, 5335-5346.	3.0	43
39	Yb ²⁺ -doped SrCl ₂ : Electronic structure of impurity states and impurity-trapped excitons. <i>Journal of Chemical Physics</i> , 2010, 133, 114509.	3.0	42
40	4f and 5d Levels of Ce ³⁺ in D ₂ 8-fold oxygen coordination. <i>Optical Materials</i> , 2013, 35, 1932-1940.	3.6	42
41	Applications of the group-function theory to the field of materials science. <i>International Journal of Quantum Chemistry</i> , 1996, 60, 617-634.	2.0	41
42	Color Control of Pr ³⁺ Luminescence by Electron-Hole Recombination Energy Transfer in CaTiO ₃ and CaZrO ₃ . <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3095-3100.	4.6	41
43	Ab initio model potential study of pressure effects on K ₂ NaGaF ₆ :Cr ³⁺ . <i>Journal of Chemical Physics</i> , 1993, 98, 4041-4046.	3.0	40
44	Bond lengths of and states of hexahalides. <i>Journal of Solid State Chemistry</i> , 2005, 178, 464-469.	2.9	40
45	First-principles study of the structure and the electronic structure of yttrium aluminum garnet Y ₃ Al ₅ O ₁₂ . <i>International Journal of Quantum Chemistry</i> , 2009, 109, 1991-1998.	2.0	40
46	Spin-free relativistic no-pair ab initio core model potentials and valence basis sets for the transition metal elements Sc to Hg. II. <i>Journal of Chemical Physics</i> , 1999, 111, 10436-10443.	3.0	39
47	Ab initio model potential embedded-cluster study of the ground and lowest excited states of Cr ³⁺ defects in the elpasolites Cs ₂ NaYCl ₆ and Cs ₂ NaYBr ₆ . <i>Journal of Chemical Physics</i> , 1998, 108, 2005-2014.	3.0	38
48	Antisite defects in Ce-doped YAG (Y ₃ Al ₅ O ₁₂): first-principles study on structures and 4f-5d transitions. <i>Journal of Materials Chemistry</i> , 2012, 22, 19888.	6.7	38
49	Is Bi ²⁺ Responsible for the Red-Orange Emission of Bismuth-Doped SrB ₄ O ₇ ? <i>Journal of Physical Chemistry C</i> , 2014, 118, 9696-9705.	3.1	38
50	Theoretical calculation of the pure electronic spectrum of MnF ₆ ⁴⁻ in vacuo and in RbMnF ₃ . <i>Physical Review B</i> , 1986, 34, 1200-1214.	3.2	37
51	Host effects on the optically active 4f and 5d levels of Ce ³⁺ in garnets. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 19221.	2.8	36
52	Large splittings of the 4f shell of Ce ³⁺ in garnets. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 3830.	2.8	35
53	Direct Evidence of Intervalence Charge-Transfer States of Eu-Doped Luminescent Materials. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1581-1586.	4.6	34
54	New developments in the model potential method: ScO molecule. <i>Journal of Chemical Physics</i> , 1985, 83, 4565-4572.	3.0	32

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55	Towards HF SCF value of electron affinity of SF ₆ . Journal of Chemical Physics, 1987, 86, 1637-1638.	3.0	32
56	Structure and spectroscopy of Pa ⁴⁺ defects in Cs ₂ ZrCl ₆ . An ab initio theoretical study. Journal of Chemical Physics, 2001, 115, 5554-5560.	3.0	32
57	Intervalence charge transfer luminescence: The anomalous luminescence of cerium-doped Cs ₂ LiLuCl ₆ elpasolite. Journal of Chemical Physics, 2014, 141, 214706.	3.0	32
58	Third-order Douglas-Kroll ab initio model potential for actinide elements. Journal of Chemical Physics, 2002, 117, 3597-3604.	3.0	31
59	Quantum chemical study of 4f ¹ 5d excitations of trivalent lanthanide ions doped in the cubic elpasolite Cs ₂ NaYCl ₆ . Ce ³⁺ to Tb ³⁺ . Journal of Chemical Physics, 2005, 123, 244703.	3.0	30
60	Energy Gaps in the 4f ¹³ 5d ¹ Manifold and Multiple Spontaneous Emissions in Yb ²⁺ -Doped CsCaBr ₃ . Journal of Physical Chemistry A, 2009, 113, 12591-12598.	2.5	30
61	Self-consistent embedded clusters: Building block equations for localized orthogonal orbitals. Journal of Mathematical Chemistry, 1992, 10, 41-56.	1.5	29
62	Large anomalies due to insufficiency of Madelung embedding in ab initio calculations of 4f ¹ 5d and 4f ¹⁴ 6s excitations of lanthanides in ionic crystals: The BaF ₂ :Ce ³⁺ crystal. Physical Review B, 2006, 74, .	3.2	28
63	Ab initio Theoretical Study on the 4f ² and 4f5d Electronic Manifolds of Cubic Defects in CaF ₂ :Pr ³⁺ . Journal of Physical Chemistry A, 2014, 118, 358-368.	2.5	28
64	A systematic study of basis set effects in ab initio SCF calculations: Well-tempered Gaussian-type function basis set calculations on transition metal halides. Journal of Chemical Physics, 1986, 84, 6315-6327.	3.0	27
65	Parallel, linear-scaling building-block and embedding method based on localized orbitals and orbital-specific basis sets. Journal of Chemical Physics, 2004, 121, 6698-6709.	3.0	27
66	Electronic spectra of Yb ²⁺ -doped SrCl ₂ . Journal of Chemical Physics, 2010, 133, 114506.	3.0	26
67	Radial correlation effects on interconfigurational excitations at the end of the lanthanide series: A restricted active space second order perturbation study of Yb ²⁺ and SrCl ₂ :Yb ²⁺ . Journal of Chemical Physics, 2013, 138, 074102.	3.0	25
68	Ab initio SCF studies of the molecular structure of XeF ₆ , IF ₆ , and TeF ₆ in non-octahedral geometries. Theoretica Chimica Acta, 1987, 71, 237-245.	0.8	24
69	Improved Embedding Ab Initio Model Potentials for Embedded Cluster Calculations. Journal of Physical Chemistry A, 2009, 113, 12454-12460.	2.5	24
70	Energy Level Structure and Multiple 4f ¹² 5d ¹ Emission Bands for Tm ²⁺ in Halide Perovskites: Theory and Experiment. Journal of Physical Chemistry C, 2017, 121, 10095-10101.	3.1	24
71	The ab initio model potential method with the spin-free relativistic scheme by eliminating small components Hamiltonian. Journal of Chemical Physics, 2001, 114, 6000-6006.	3.0	23
72	The 5f ² 5f ¹ 6d ¹ absorption spectrum of Cs ₂ GeF ₆ :U ⁴⁺ crystals: A quantum chemical and experimental study. Journal of Chemical Physics, 2006, 125, 074511.	3.0	22

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73	Spin-forbidden and spin-enabled $4f^{14}4f^{13}5d^1$ transitions of Yb^{2+} -doped CsCaBr_3 . <i>Journal of Chemical Physics</i> , 2009, 131, 024505.	3.0	22
74	First-Principles Study on Structural Properties and $4f^{\uparrow} 5d$ Transitions of Locally Charge-Compensated Ce^{3+} in CaF_2 . <i>Journal of Physical Chemistry C</i> , 2012, 116, 18419-18426.	3.1	22
75	Ab initio calculations on transition metal compounds using small minimal GTO basis sets. <i>Chemical Physics Letters</i> , 1985, 117, 151-153.	2.6	21
76	Geometry and electronic structure of impurity-trapped excitons in $\text{Cs}_2\text{GeF}_6:\text{U}^{4+}$ crystals. The $5f^{17}s^1$ manifold. <i>Journal of Chemical Physics</i> , 2007, 126, 194712.	3.0	21
77	A third-order Douglas-Kroll ab initio model potential for the lanthanides. <i>Chemical Physics Letters</i> , 2002, 361, 334-340.	2.6	20
78	Relation between high-pressure spectroscopy and geometry: A comparison between theoretical and experimental results in $4f^{\uparrow} 5d$ transitions of Ce^{3+} in CaF_2 . <i>Journal of Physical Chemistry C</i> , 2012, 116, 18419-18426.	3.2	20
79	Ab initio theoretical study of the $4f^{\uparrow} 5d$ transitions and $4f^{75}d$ manifolds of Tb^{3+} -doped BaF_2 cubic sites. <i>Journal of Luminescence</i> , 2014, 145, 808-817.	3.1	20
80	Charge transfer from Eu^{2+} to trivalent lanthanide co-dopants: Systematic behavior across the series. <i>Journal of Chemical Physics</i> , 2021, 154, 064704.	3.0	20
81	$5f^{\uparrow} 5f$ transitions of U^{4+} ions in high-field, octahedral fluoride coordination: The $\text{Cs}_2\text{GeF}_6:\text{U}^{4+}$ crystal. <i>Journal of Chemical Physics</i> , 2005, 123, 204502.	3.0	19
82	Prediction of pressure-induced redshift of $f^{\uparrow} d(t_2g)^1$ excitations in $\text{Cs}_2\text{NaYCl}_6:\text{Ce}^{3+}$ and its connection with bond-length shortening. <i>Journal of Chemical Physics</i> , 2005, 122, 234507.	3.0	19
83	The luminescence spectrum of in 2GeF_6 crystals—A quantum chemical study. <i>Journal of Luminescence</i> , 2007, 126, 779-783.	3.1	18
84	Elucidation of the electron transfer mechanism in Eu^{2+} and Sm^{2+} codoped CaF_2 . <i>Physical Review B</i> , 2021, 104, .	3.2	18
85	Structure and properties of transition-metal compounds. A systematic study of basis set effects in ab initio SCF calculations. <i>International Journal of Quantum Chemistry</i> , 1986, 29, 1047-1058.	2.0	17
86	The ab initio model potential method. Relativistic Wood-Boring valence spin-orbit potentials and spin-orbit-corrected basis sets from $\text{B}(Z=5)$ to $\text{Ba}(Z=56)$. <i>Computational and Theoretical Chemistry</i> , 1998, 426, 59-74.	1.5	17
87	Ab initio theoretical study of luminescence properties of Pr^{3+} -doped Lu_2O_3 . <i>Theoretical Chemistry Accounts</i> , 2011, 129, 545-554.	1.4	17
88	New Insights in $4f^{12} 5d^1$ Excited States of Tm^{2+} through Excited State Excitation Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2730-2734.	4.6	17
89	The Complexity of the $\text{CaF}_2:\text{Yb}$ System: A Huge, Reversible, X-ray-Induced Valence Reduction. <i>Journal of Physical Chemistry C</i> , 2017, 121, 28435-28442.	3.1	17
90	The maximum overlap method: A general and efficient scheme for reducing basis sets. Application to the generation of approximate AO's for the 3d transition metal atoms and ions. <i>Journal of Solid State Chemistry</i> , 1986, 63, 391-400.	2.9	16

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91	Ab initio model potential embedded cluster calculation of the absorption spectrum of Cs ₂ GeF ₆ :Mn ⁴⁺ . Large discrepancies between theory and experiment. <i>International Journal of Quantum Chemistry</i> , 2000, 80, 623-635.	2.0	16
92	Quantum chemical study of the lanthanide bond length contraction on Ln ³⁺ -doped Cs ₂ NaYCl ₆ crystals (Ln=Ce to Lu). <i>Journal of Chemical Physics</i> , 2003, 119, 6143-6149.	3.0	16
93	X-ray Excitation Triggers Ytterbium Anomalous Emission in CaF ₂ :Yb but Not in SrF ₂ :Yb. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1175-1178.	4.6	16
94	Core-projection effects in near ab initio valence calculations of the electronic ground state of the octahedral CrF ₄ ⁶⁻ . <i>Journal of Solid State Chemistry</i> , 1986, 61, 269-276.	2.9	15
95	Theoretical and Experimental Study of Tri- and Tetrahalodiorganostannate(IV) Salts. Solvent Dependence in the Reaction of Dimethyltin Dibromide with Tetraethylammonium Bromide. <i>Organometallics</i> , 2001, 20, 654-662.	2.3	15
96	Alternative configuration interaction expansions for transition metal ions with intermediate oxidation states in crystals: The structure and absorption spectrum of Cs ₂ GeF ₆ :Mn ⁴⁺ . <i>Journal of Chemical Physics</i> , 2001, 115, 7061-7065.	3.0	15
97	High pressure effects on the structure and spectroscopy of V ³⁺ substitutional defects in Cs ₂ NaYCl ₆ . An ab initio embedded cluster study. <i>Journal of Chemical Physics</i> , 2003, 118, 1921-1928.	3.0	15
98	On the Bond Length Change upon 4f ¹ 5d ¹ Excitations in Eightfold Coordination: CaF ₂ :Ce ³⁺ Cubic Defects. <i>Theoretical Chemistry Accounts</i> , 2006, 116, 505-508.	1.4	15
99	Structure and Hindered Vibration of Bi ²⁺ in the Red-Orange Phosphor SrB ₄ O ₇ :Bi. <i>Journal of Physical Chemistry C</i> , 2014, 118, 17932-17939.	3.1	15
100	Metal-to-metal charge transfer between dopant and host ions: Photoconductivity of Yb-doped CaF ₂ and SrF ₂ crystals. <i>Journal of Chemical Physics</i> , 2015, 143, 144702.	3.0	15
101	Mixed-Valence Lanthanide-Activated Phosphors: Invariance of the Intervalence Charge Transfer (IVCT) Absorption Onset across the Series. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2619-2626.	3.1	15
102	A new interpretation of the bonding and spectroscopy of the tetraoxoferrate(VI) FeO ₄ ²⁻ ion. <i>Journal of Chemical Physics</i> , 1998, 109, 6396-6405.	3.0	14
103	Ab initio spin-free-state-shifted spin-orbit configuration interaction calculations on singly ionized iridium. <i>Journal of Chemical Physics</i> , 1998, 108, 7980-7987.	3.0	14
104	Structure and spectroscopy of Cr ³⁺ defects in KMgF ₃ , KZnF ₃ , and CsCaF ₃ crystals. An ab initio model potential embedded cluster study. <i>International Journal of Quantum Chemistry</i> , 2000, 77, 961-972.	2.0	14
105	Anomalous Red and Infrared Luminescence of Ce ³⁺ Ions in SrS:Ce Sintered Ceramics. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27649-27656.	3.1	14
106	Quintet-triplet electronic transitions and nephelauxetic effects in CrF ₄ ⁶⁻ . Results of an SCF MO calculation. <i>Journal of Solid State Chemistry</i> , 1982, 42, 28-40.	2.9	13
107	The 5f ₃ manifold of the free-ion U ³⁺ : Ab initio calculations. <i>Chemical Physics Letters</i> , 2007, 434, 1-5.	2.6	13
108	Blue absorption and red emission of Bi ²⁺ in solids: strongly spin-orbit coupled 6p levels in low symmetry fields. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 17305-17314.	2.8	13

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109	Ab initio model potential study of the optical absorption spectrum of Mn ²⁺ -doped CaF ₂ . Journal of Chemical Physics, 1995, 103, 4841-4846.	3.0	12
110	Relativistic Ab-Initio Model Potential Calculations for Molecules and Embedded Clusters. Theoretical and Computational Chemistry, 2004, , 417-475.	0.4	12
111	Structural relaxation effects on the lowest $f-f$ transition of Ce^{3+} in garnets. Theoretical Chemistry Accounts, 2015, 134, 1.	1.4	12
112	Atomic valence correlation energies from ab initio model potential calculations. Chemical Physics Letters, 1992, 192, 217-220.	2.6	11
113	Relativistic Wood-Boring ab initio model potential calculations on the platinum atom. Chemical Physics Letters, 1995, 236, 510-515.	2.6	11
114	Ab initio model-potential embedded-cluster study of Jahn-Teller parameters and electronic transition energies of Cr ²⁺ in oxide and fluoride octahedral coordination. Physical Review B, 1996, 53, 1138-1145.	3.2	11
115	Wood-Boring ab initio model potential relativistic treatment of Ce and CeO. Chemical Physics Letters, 1999, 299, 613-622.	2.6	11
116	hybridization of trivalent uranium in crystals of hexagonal symmetry: Effects on electronic energy levels and transition intensities. Physical Review B, 2009, 80, .	3.2	11
117	Multiple-excited-state absorption of V ²⁺ in low-field crystals: An ab initio model-potential embedded-cluster study. Physical Review B, 1998, 57, 11974-11979.	3.2	10
118	Detailed interpretation of the 5f-6d absorption spectrum of U ³⁺ in Cs ₂ NaYCl ₆ and high pressure effects based on an ab initio simulation. Journal of Chemical Physics, 2007, 127, 144712.	3.0	10
119	Order-N and embedded-cluster first-principles DFT calculations using SIESTA/Mosaico. Theoretical Chemistry Accounts, 2007, 118, 541-547.	1.4	10
120	Effective Hamiltonian parameters for ab initio energy-level calculations of SrCl ₂ :Yb ²⁺ and CsCaBr ₃ :Yb ²⁺ . Journal of Physics Condensed Matter, 2013, 25, 415504.	1.8	10
121	Ab Initio Calculations on Excited States of Lanthanide Containing Materials. Fundamental Theories of Physics, 2016, 50, 65-89.	0.3	10
122	Red shifts of the yellow emission of YAG:Ce ³⁺ due to tetragonal fields induced by cationic substitutions. RSC Advances, 2016, 6, 25741-25743.	3.6	10
123	Energy Shift of the $f-f$ Excited States of Yb ²⁺ from Gas Phase to the CsCaBr ₃ Solid. Spectroscopy Letters, 2010, 43, 393-399.	1.0	9
124	Theoretical study of the effects of F to Cl chemical substitution on the electronic structure and the luminescence properties of Cs ₂ GeF ₆ :Os ⁴⁺ and Cs ₂ ZrCl ₆ :Os ⁴⁺ materials. Journal of Chemical Physics, 2006, 124, 124315.	3.0	8
125	Energy level shifts in two-step spin-orbit coupling ab initio calculations. Chemical Physics Letters, 2010, 498, 226-228.	2.6	8
126	On the importance of an accurate representation of the Ewald potential throughout the cluster volume in the calculation of the cluster-lattice interaction. Journal of Solid State Chemistry, 1984, 55, 236-238.	2.9	7

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127	Extended model potential calculations on I2 and HI molecules. Journal of Chemical Physics, 1986, 84, 1941-1942.	3.0	7
128	Ab initio model potential embedded cluster study of the structure and spectroscopy of V ³⁺ -doped elpasolites K ₂ NaScF ₆ , Cs ₂ NaYCl ₆ and Cs ₂ NaYBr ₆ . Computational and Theoretical Chemistry, 1998, 451, 135-142.	1.5	6
129	Fine-Tuning the Cr ³⁺ R ₁ -Line by Controlling Pauli Antisymmetry Strength. Journal of Physical Chemistry Letters, 2019, 10, 3176-3180.	4.6	6
130	Linear expansion of the eigenvalues of a Hermitian matrix and its application to the analysis of the electronic spectra of 3d ions in crystals. Journal of Solid State Chemistry, 1985, 56, 241-248.	2.9	5
131	Beyond the Embedded-Cluster Approximation: An ab initio Treatment of Polarization Effects. NATO ASI Series Series B: Physics, 1992, , 565-576.	0.2	5
132	Association of proteins: Adaptation and coupling of two available programs. Computer Physics Communications, 1986, 41, 169-177.	7.5	3
133	Recognition of amino acids in solution: The role of the hydrophobic forces. Journal of Biological Physics, 1986, 14, 107-111.	1.5	3
134	Basis sets generation: Relation between Adamowicz's and the maximum overlap method. International Journal of Quantum Chemistry, 1987, 31, 279-285.	2.0	3
135	Theoretical studies of transplantation antigens: Predicted conformation and structure-function relationship of the murine MHC class I antigen H-2Kb. Computational and Theoretical Chemistry, 1988, 179, 27-39.	1.5	3
136	Reduction of orbital sets. Computer Physics Communications, 1987, 43, 269-277.	7.5	2
137	Ab initio model potential embedded-cluster calculation of the geometric structure of Tl ⁺ monomer and dimer centers in KCl. Computational and Theoretical Chemistry, 2001, 537, 151-161.	1.5	2
138	On the nature of the ground state of Cr(V) defects in YVO ₄ : An ab initio model potential embedded-cluster study. International Journal of Quantum Chemistry, 2002, 90, 751-758.	2.0	2
139	Matrix linearization. Computer Physics Communications, 1986, 42, 127-136.	7.5	0
140	Ab initio calculations of lanthanide and Actinide Ions in Solids Using MOLCAS. , 2006, , 1307-1307.		0
141	Embedded-Cluster Calculations. , 1994, , 341-356.		0