

Chantal Daniel

List of Publications by Year in descending order

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66
papers

2,847
citations

159585

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175258

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docs citations

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times ranked

2736
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin-Vibronic Mechanism for Intersystem Crossing. <i>Chemical Reviews</i> , 2018, 118, 6975-7025.	47.7	592
2	Photochemistry and photophysics of transition metal complexes: Quantum chemistry. <i>Coordination Chemistry Reviews</i> , 2015, 282-283, 19-32.	18.8	118
3	Quantitative wave function analysis for excited states of transition metal complexes. <i>Coordination Chemistry Reviews</i> , 2018, 361, 74-97.	18.8	109
4	UV-Visible Absorption Spectra of $[\text{Ru}(\text{E})(\text{E}^{\sim})(\text{CO})_2(\text{iPr-DAB})]$ ($\text{E} = \text{E}^{\sim} = \text{SnPh}_3$ or Cl ; $\text{E} = \text{SnPh}_3$ or Cl , $\text{E}^{\sim} =$) Tj ETQq0 0 0 rgBT /Over Calculations. <i>Journal of the American Chemical Society</i> , 2001, 123, 11431-11440.	13.7	101
5	Spin-Vibronic Quantum Dynamics for Ultrafast Excited-State Processes. <i>Accounts of Chemical Research</i> , 2015, 48, 809-817.	15.6	96
6	Relativistic effects in spectroscopy and photophysics of heavy-metal complexes illustrated by spin-orbit calculations of $[\text{Re}(\text{imidazole})(\text{CO})_3(\text{phen})]^+$. <i>Coordination Chemistry Reviews</i> , 2011, 255, 975-989.	18.8	90
7	Photo-induced redox catalysis for proton reduction to hydrogen with homogeneous molecular systems using rhodium-based catalysts. <i>Coordination Chemistry Reviews</i> , 2015, 304-305, 20-37.	18.8	87
8	Spin-Orbit Treatment of UV-Vis Absorption Spectra and Photophysics of Rhenium(I) Carbonyl-Bipyridine Complexes: MS-CASPT2 and TD-DFT Analysis. <i>Journal of Physical Chemistry A</i> , 2012, 116, 11319-11329.	2.5	74
9	A theoretical study of Ru(II) polypyridyl DNA intercalators. <i>Journal of Inorganic Biochemistry</i> , 2010, 104, 893-901.	3.5	70
10	Influence of the Halogen Ligand on the Near-UV-Visible Spectrum of $[\text{Ru}(\text{X})(\text{Me})(\text{CO})_2(\text{L}^{\pm}\text{-diimine})]$ ($\text{X} = \text{Cl}$,) Tj ETQq0 0 0 rgBT /Overlo <i>Chemistry</i> , 2004, 43, 7978-7985.	4.0	60
11	Spectroscopy of Ru(II) polypyridyl complexes used as intercalators in DNA: Towards a theoretical study of the light switch effect. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2007, 190, 310-320.	3.9	57
12	Electronic absorption spectroscopy of $[\text{Ru}(\text{phen})_2(\text{bpy})]^{2+}$, $[\text{Ru}(\text{phen})_2(\text{dmbp})]^{2+}$, $[\text{Ru}(\text{tpy})(\text{phen})(\text{CH}_3\text{CN})]^{2+}$ and $[\text{Ru}(\text{tpy})(\text{dmp})(\text{CH}_3\text{CN})]^{2+}$ A theoretical study. <i>Coordination Chemistry Reviews</i> , 2008, 252, 2493-2503.	18.8	56
13	Photophysical Properties of Ruthenium(II) Polypyridyl DNA Intercalators: Effects of the Molecular Surroundings Investigated by Theory. <i>Chemistry - A European Journal</i> , 2014, 20, 12901-12909.	3.3	54
14	Heteroleptic diimine copper(I) complexes with large extinction coefficients: synthesis, quantum chemistry calculations and physico-chemical properties. <i>Dalton Transactions</i> , 2013, 42, 14628.	3.3	53
15	Exploring the Mechanism of Ultrafast Intersystem Crossing in Rhenium(I) Carbonyl Bipyridine Halide Complexes: Key Vibrational Modes and Spin-Vibronic Quantum Dynamics. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 2335-2345.	5.3	52
16	Strong Influence of Decoherence Corrections and Momentum Rescaling in Surface Hopping Dynamics of Transition Metal Complexes. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 5031-5045.	5.3	50
17	Spin-orbit induced radiationless transitions in organometallics: Quantum simulation of the intersystem crossing processes in the photodissociation of $\text{HCo}(\text{CO})_4$. <i>Journal of Chemical Physics</i> , 1997, 106, 1421-1428.	3.0	49
18	Theoretical evidence of photo-induced charge transfer from DNA to intercalated ruthenium (II) organometallic complexes. <i>Chemical Physics Letters</i> , 2013, 578, 133-137.	2.6	47

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19	A coupled cluster study of the electronic spectroscopy and photochemistry of Cr(CO) ₆ . <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 6115.	2.8	46
20	Ultrafast Excited-State Decays in [Re(CO) ₃ (N,N)(L)] ⁺ : Nonadiabatic Quantum Dynamics. <i>Journal of Chemical Theory and Computation</i> , 2017, 13, 1293-1306.	5.3	45
21	Spin-orbit effects in square-planar Pt(II) complexes with bidentate and terdentate ligands: theoretical absorption/emission spectroscopy. <i>Dalton Transactions</i> , 2014, 43, 17806-17819.	3.3	41
22	Excited-states of a rhenium carbonyl diimine complex: solvation models, spin-orbit coupling, and vibrational sampling effects. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 27240-27250.	2.8	40
23	Quantum Chemical Interpretation of Ultrafast Luminescence Decay and Intersystem Crossings in Rhenium(I) Carbonyl Bipyridine Complexes. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 99-110.	5.3	39
24	The electronic spectroscopy of transition metal carbonyls: The tough case of Cr(CO) ₆ . <i>Chemical Physics Letters</i> , 2006, 421, 378-382.	2.6	38
25	Spin-orbit induced radiationless transitions in organometallics: Quantum simulation of the 1E ⁺ 3A ₁ intersystem crossing process in HCo(CO) ₄ . <i>Journal of Chemical Physics</i> , 1995, 102, 905-912.	3.0	37
26	Photoreactivity of Cr(CO) ₄ (2,2'-Bipyridine): Quantum Chemistry and Photodissociation Dynamics. <i>Journal of Physical Chemistry A</i> , 2001, 105, 1107-1114.	2.5	37
27	Spin-orbit coupled excited states in transition metal complexes: A configuration interaction treatment of HCo(CO) ₄ . <i>Journal of Chemical Physics</i> , 1994, 100, 6591-6596.	3.0	36
28	Spin-Orbit Coupling Effects on the Metal-Hydrogen Bond Homolysis of M(H)(CO) ₃ (H-DAB) (M = Mn, Re; Tj ETQo 0 0 rgBT /Overlo	2.5	34
29	Luminescent Dinuclear Copper(I) Complexes as Potential Thermally Activated Delayed Fluorescence (TADF) Emitters: A Theoretical Study. <i>Journal of Physical Chemistry A</i> , 2018, 122, 1413-1421.	2.5	34
30	Interstate vibronic coupling constants between electronic excited states for complex molecules. <i>Journal of Chemical Physics</i> , 2018, 148, 124119.	3.0	33
31	Structural and spectroscopic properties of Ir(III) complexes with phenylpyridine ligands: Absorption spectra without and with spin-orbit-coupling. <i>Computational and Theoretical Chemistry</i> , 2014, 1040-1041, 219-229.	2.5	31
32	Description of excited states in [Re(Imidazole)(CO) ₃ (Phen)] ⁺ including solvent and spin-orbit coupling effects: Density functional theory versus multiconfigurational wavefunction approach. <i>Journal of Computational Chemistry</i> , 2016, 37, 2454-2466.	3.3	30
33	Ultrafast Intersystem Crossing vs Internal Conversion in $\hat{\pm}$ -Diimine Transition Metal Complexes: Quantum Evidence. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5189-5195.	4.6	30
34	Electronic spectroscopy of HRe(CO) ₅ : a CASSCF/CASPT2 and TD-DFT study. <i>Chemical Physics Letters</i> , 2001, 342, 617-624.	2.6	28
35	Inorganic photoisomerization: the case study of rhenium(I) complexes. <i>Dalton Transactions</i> , 2012, 41, 13191.	3.3	28
36	Chemical bonding alteration upon electronic excitation in transition metal complexes. <i>Coordination Chemistry Reviews</i> , 2017, 344, 131-149.	18.8	27

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37	Theoretical analysis of low-lying charge transfer states in [Ru(X) (Me)(CO) ₂ (Me-DAB)] (X = 3/4 Cl, I); Tj ETQq1 1 0.784314 rgBT /Overlook Quantum Chemistry, 2006, 106, 2458-2469.	2.0	25
38	Ultrafast processes: coordination chemistry and quantum theory. Physical Chemistry Chemical Physics, 2021, 23, 43-58.	2.8	24
39	Spin-orbit effects on the electronic spectroscopy of transition metal dihydrides H ₂ M(CO) ₄ (M=Fe,) Tj ETQq1 1 0.784314 rgBT /Overlook Chemical Physics Letters, 2006, 427, 1-6.	1.9	23
40	Intriguing Effects of Halogen Substitution on the Photophysical Properties of 2,9-(Bis)halo-Substituted Phenanthrolinecopper(I) Complexes. Inorganic Chemistry, 2019, 58, 7730-7745.	4.0	23
41	Spin-orbit absorption spectroscopy of transition metal hydrides: A TD-DFT and MS-CASPT2 study of HM(CO) ₅ (M = Mn, Re). International Journal of Quantum Chemistry, 2012, 112, 2085-2097.	2.0	22
42	Ligand substitution and conformational effects on the ultrafast luminescent decay of [Re(CO) ₃ (phen)(L)] ⁺ (L = imidazole, pyridine): non-adiabatic quantum dynamics. Physical Chemistry Chemical Physics, 2018, 20, 1134-1141.	2.8	22
43	Ab initio study of the electronic singlet excited-state properties of tryptophan in the gas phase: The role of alanyl side-chain conformations. Chemical Physics, 2010, 374, 104-110.	1.9	21
44	Electrochemical Generation and Spectroscopic Characterization of the Key Rhodium(III) Hydride Intermediates of Rhodium Poly(bipyridyl) H ₂ -Evolving Catalysts. Inorganic Chemistry, 2018, 57, 11225-11239.	4.0	21
45	The Spectroscopy of HMn(CO) ₅ : A CASSCF/MRCI and CASPT2 ab Initio Study. Inorganic Chemistry, 1998, 37, 1387-1391.	4.0	20
46	A computational mechanistic investigation of hydrogen production in water using the [RhIII(dmbpy) ₂ Cl ₂]/[RuII(bpy) ₃] ₂ /ascorbic acid photocatalytic system. Physical Chemistry Chemical Physics, 2015, 17, 10497-10509.	2.8	19
47	Non-symmetrical Sterically Challenged Phenanthroline Ligands and Their Homoleptic Copper(I) Complexes with Improved Excited-State Properties. Chemistry - A European Journal, 2020, 26, 11887-11899.	3.3	19
48	New luminescent copper(I) complexes with extended π-conjugation. Polyhedron, 2018, 140, 42-50.	2.2	18
49	Absorption Spectroscopy, Emissive Properties, and Ultrafast Intersystem Crossing Processes in Transition Metal Complexes: TD-DFT and Spin-Orbit Coupling. Topics in Current Chemistry, 2015, 368, 377-413.	4.0	17
50	Electronic and Photophysical Properties of [Re (L)(CO) ₃ (phen)] ⁺ and [Ru(L) ₂ (bpy) ₂] ²⁺ (L = imidazole), Building Units for Long-Range Electron Transfer in Modified Blue Copper Proteins. Journal of Physical Chemistry A, 2016, 120, 6934-6943.	2.5	17
51	Highly Emissive Red Heterobimetallic Ir ^{III} /M ^I (M = Cu) Tj ETQq1 1 0.784314 rgBT /Overlook Materials, 2022, 34, 1756-1769.	6.7	16
52	Structural and optical properties of new cyclometalated Ru(II) derived compounds. Journal of Organometallic Chemistry, 2014, 760, 248-259.	1.8	15
53	A multi state-CASPT2 vs. TD-DFT study of the electronic excited states of RCo(CO) ₄ (R=H, CH ₃) organometallic complexes. Chemical Physics Letters, 2006, 417, 545-549.	2.6	10
54	Structures and spectral properties of heteroleptic copper (I) complexes: A theoretical study based on density functional theory. Comptes Rendus Chimie, 2012, 15, 255-266.	0.5	9

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55	Absorption Spectroscopy and Photophysics of a Re ^I dppz Probe for DNA-Mediated Charge Transport. Chemistry - A European Journal, 2018, 24, 14425-14435.	3.3	9
56	Charge-Transfer versus Charge-Separated Triplet Excited States of [Re ^I (dmp)(CO) ₃ (His124)(Trp122)] ⁺ in Water and in Modified <i>Pseudomonas aeruginosa</i> Azurin Protein. Chemistry - A European Journal, 2019, 25, 2519-2526.	3.3	8
57	Excited-state dynamics of [Mn(im)(CO) ₃ (phen)] ⁺ : PhotoCORM, catalyst, luminescent probe?. Journal of Chemical Physics, 2021, 154, 154102.	3.0	8
58	Excited-State Reactivity of [Mn(im)(CO) ₃ (phen)] ⁺ : A Structural Exploration. Journal of Computational Chemistry, 2019, 40, 72-81.	3.3	7
59	Substituent effects on the photophysical properties of 2,9-substituted phenanthroline copper(I) complexes: a theoretical investigation. ChemPhysChem, 2021, 22, 509-515.	2.1	7
60	Comprehensive investigation of the electronic excitation of W(CO) ₆ by photoabsorption and theoretical analysis in the energy region from 3.9 to 10.8 eV. Beilstein Journal of Nanotechnology, 2017, 8, 2208-2218.	2.8	5
61	Phosphorescent Cationic Heterodinuclear Ir ^{III} /M ^I Complexes (M=Cu ^I , Au ^I) with a Hybrid Janus-Type N-Heterocyclic Carbene Bridge. Chemistry - A European Journal, 2020, 26, 11751-11766.	3.3	4
62	Metal-metal bonding in 1st, 2nd and 3rd row transition metal complexes: a topological analysis. Journal of Molecular Modeling, 2017, 23, 163.	1.8	2
63	Density Functional Theories and Coordination Chemistry. , 2020, , .		2
64	Developments in ultrafast spectroscopy. Physical Chemistry Chemical Physics, 2022, , .	2.8	1
65	Spectroscopy and Photophysics Involving Transition Metal Complexes, Theoretical Perspectives. , 2015, , .		0
66	Are luminescent Ru ²⁺ chelated complexes selective coordinative sensors for the detection of heavy cations?. Physical Chemistry Chemical Physics, 2022, 24, 2309-2317.	2.8	0