William J Pietro

List of Publications by Year
in descending order

57 papers	10,355 citations	279798 23 h-index	149698 56 g-index
57 all docs	57 docs citations	57 times ranked	10159 citing authors

#	Article	IF	Citations
1	Selfâ€consistent molecular orbital methods. XXIII. A polarizationâ€type basis set for secondâ€row elements. Journal of Chemical Physics, 1982, 77, 3654-3665.	3.0	7,209
2	Self-consistent molecular-orbital methods. 22. Small split-valence basis sets for second-row elements. Journal of the American Chemical Society, 1982, 104, 2797-2803.	13.7	1,662
3	Electrochemical Parametrization in Sandwich Complexes of the First Row Transition Metals. Inorganic Chemistry, 1996, 35, 1013-1023.	4.0	128
4	Excited State Redox Potentials of Ruthenium Diimine Complexes; Correlations with Ground State Redox Potentials and Ligand Parameters. Inorganic Chemistry, 1995, 34, 1906-1913.	4.0	121
5	Molecular orbital theory of the properties of inorganic and organometallic compounds. 1. STO-NG basis sets for third-row main-group elements. Inorganic Chemistry, 1980, 19, 2225-2229.	4.0	116
6	Molecular orbital theory of the properties of inorganic and organometallic compounds. 3.STO-3G basis sets for first- and second-row transition metals. Journal of Computational Chemistry, 1983, 4, 241-251.	3.3	101
7	First-Principles Interpretation of Ligand Electrochemical (EL(L)) Parameters. Factorization of the .sigma. and .pi. Donor and .pi. Acceptor Capabilities of Ligands. Journal of the American Chemical Society, 1995, 117, 6990-6993.	13.7	78
8	Resistivity mechanisms in phthalocyanine-based linear-chain and polymeric conductors: variation of bandwidth with geometry. Journal of the American Chemical Society, 1985, 107, 5387-5391.	13.7	77
9	Molecular orbital theory of the properties of inorganic and organometallic compounds. 2. STO-NG basis sets for fourth-row main-group elements. Inorganic Chemistry, 1981, 20, 3650-3654.	4.0	60
10	Electrochemical reduction of nitrite and nitric oxide catalyzed by an iron-alizarin complexone adsorbed on a graphite electrode. Inorganic Chemistry, 1994, 33, 1392-1398.	4.0	52
11	Tautomerization of dimethyl phosphonate. Journal of the American Chemical Society, 1982, 104, 3594-3595.	13.7	50
12	Rectifying junctions based on metallophthalocyanine thin films. Advanced Materials, 1994, 6, 239-242.	21.0	49
13	Chemical Functionalization of Cadmium Sulfide Quantum-Confined Microclusters. Chemistry of Materials, 1994, 6, 1593-1595.	6.7	49
14	Thermochemistry of Group IVA isobutene analogs by pulsed ion cyclotron double resonance spectroscopy. Journal of the American Chemical Society, 1982, 104, 4329-4332.	13.7	40
15	Electronic Structure and Spectra of Linkage Isomers of Bis(bipyridine)(1,2-dihydroxy-9,10-anthraquinonato)ruthenium(II) and Their Redox Series. Inorganic Chemistry, 2004, 43, 2654-2671.	4.0	39
16	Surface Functionalization of Cadmium Sulfide Quantum-Confined Nanoclusters. 3. Formation and Derivatives of a Surface Phenolic Quantum Dot. Chemistry of Materials, 1997, 9, 2117-2122.	6.7	38
17	Influence of Remote Ligand Lone Pairs on the Electronic Structure and Spectrum of Bis(bipyridine)ruthenium(II) 3,4-Diamino-3â€˜,4â€˜-diimino-3â€˜,4â€˜-dihydrobiphenyl. Tuning by External Donors and Acceptors. Inorganic Chemistry, 1996, 35, 7741-7750.	4.0	35
18	Natural bond orbital (NBO) analysis of substituent effects in borazine derivatives. Inorganic Chemistry, 1989, 28, 544-548.	4.0	34

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19	An ab initio molecular orbital study of the rearrangement of .alpha.-disulfoxide to thiosulfonate. Journal of the American Chemical Society, 1982, 104, 1161-1165.	13.7	32
20	Rational Design of a Light-Driven Molecular Switch Incorporating an Alizarin-Ru(bpy)2 Fragment. Inorganic Chemistry, 1995, 34, 1507-1513.	4.0	32
21	Linkage Isomers of Ruthenium Alizarin Complexes. Inorganic Chemistry, 1994, 33, 1583-1584.	4.0	31
22	Effect of donors and acceptors on the twist angle of a ruthenium complex of bis(bipyridine)ruthenium(II) 3,4-diamino-3',4'-diimino-3',4'-dihydrobiphenyl. A bifunctional biphenyl derivative and a potential molecular switch. Inorganic Chemistry, 1993, 32, 3581-3582.	4.0	30
23	Surface Functionalization of Cadmium Sulfide Quantum-Confined Nanoclusters. 5. Evidence of Facile Surface-Core Electronic Communication in the Photodecomposition Mechanism of Functionalized Quantum Dots. Chemistry of Materials, 1999, 11, 642-648.	6.7	25
24	Surface Functionalization of Cadmium Sulfide Quantum Confined Semiconductor Nanoclusters. 2. Formation of a "Quantum Dot" Condensation Polymer. Chemistry of Materials, 1995, 7, 1333-1336.	6.7	24
25	Synthesis and characterization of partially crosslinked poly(N-vinylcarbazole-vinylalcohol) copolymers with polypyridyl Ru(II) luminophores: Potential materials for electroluminescence. Polymer Bulletin, 1999, 43, 135-142.	3.3	21
26	Heat of formation of 1,1-dimethylsilaethylene by ion cyclotron resonance spectroscopy. Journal of the American Chemical Society, 1979, 101, 7126-7127.	13.7	19
27	Linkage isomers of alizarin-bis(bipyridine)ruthenium(II). Inorganica Chimica Acta, 1998, 281, 126-133.	2.4	17
28	Telechelic poly(Îµ-caprolactones) with tethered mixed ligand ruthenium(II) chromophores. Canadian Journal of Chemistry, 2004, 82, 595-607.	1.1	17
29	Biodegradable Open Cell Foams of Telechelic Poly(Îµ-caprolactone) Macroligand with Ruthenium (II) Chromophoric Subunits via Sub-Critical CO2Processing. Biomacromolecules, 2005, 6, 2458-2461.	5.4	16
30	REDOX ACTIVE, MULTI-CHROMOPHORE RU(II) POLYPYRIDYL-CARBAZOLE COPOLYMERS: SYNTHESIS AND CHARACTERIZATION. Journal of Macromolecular Science - Pure and Applied Chemistry, 2000, 37, 1507-1529.	2.2	14
31	Synthesis and characterization of multifunctional polymers via atom transfer radical polymerization ofN-(Ï‰â€²-alkylcarbazolyl) methacrylates initiated by Ru(II) polypyridyl chromophores. Journal of Polymer Science Part A, 2005, 43, 6057-6072.	2.3	13
32	Surface functionalization of cadmium sulfide quantum confined nanoclusters6: Evidence of facile electronic communication between remote surface sites. Polyhedron, 2000, 19, 331-341.	2.2	11
33	Poly(É›-caprolactone)-block-polystyrene metallopolymers via sequential ROP and ATRP condition with in situ generated ruthenium catalyst. Polymer, 2006, 47, 4282-4291.	3.8	11
34	Syntheses, characterization and structures of 2-(2-pyridyl)-4-methylcarboxyquinoline ligand and bis(2,2â€²-bipyridine)-2-(2-pyridyl)-4-methylcarboxyquinoline ruthenium (II) hexafluorophosphate. Inorganica Chimica Acta, 2003, 343, 295-306.	2.4	9
35	Orbital photography. Journal of Computational Chemistry, 1983, 4, 276-282.	3.3	8
36	A highâ€stability quartz crystal microbalance electrode for simultaneous solutionâ€phase electrochemistry/microgravitometry. Review of Scientific Instruments, 1993, 64, 1530-1535.	1.3	7

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37	Atom transfer radical polymerization of N-(Ï‰â€²-alkylcarbazolyl)methacrylates via the use of novel heteroleptic Ru(II) polypyridyl initiator. Inorganica Chimica Acta, 2004, 357, 3813-3824.	2.4	7
38	Surface functionalization of cadmium sulfide quantum-confined nanoclusters. 4. Formation and reactivity of an aniline surface quantum dot. Canadian Journal of Chemistry, 1998, 76, 1530-1539.	1.1	7
39	Deprotonation of Nitroalkanes: Semiempirical Determination of Solvation Effects on a Simple Reaction Coordinate. Journal of Chemical Education, 1994, 71, 416.	2.3	6
40	Redox coenzyme functionalization of electrochemically grown Prussian blue films. Sensors and Actuators B: Chemical, 1996, 30, 173-178.	7.8	6
41	cis-(2,2â€²-Bipyridine)bis[2-(2-pyridyl)-4-methoxycarbonylquinoline]ruthenium(II) hexafluorophosphate. Acta Crystallographica Section E: Structure Reports Online, 2001, 57, m274-m276.	0.2	6
42	Synthesis, structure and electrochemical properties of tris (2-(2-pyridyl)-4-methylcarbonylquinoline) ruthenium(II) hexafluorophosphate. Inorganic Chemistry Communication, 2003, 6, 662-665.	3.9	6
43	Phaseâ€frequency relationships in oscillating quartz microbalance electrodes: Determination of an optimal operating frequency for solutionâ€phase microgravimetry. Review of Scientific Instruments, 1995, 66, 1131-1135.	1.3	5
44	Cis-dichloro-bis-2-(2-pyridyl)-4-(methylcarboxy)quinoline ruthenium (II): a novel ruthenium (II) tris-chelated building precursor. Inorganic Chemistry Communication, 2001, 4, 237-240.	3.9	5
45	Ethanol as an Alternative Fuel for Automobiles: Using the First Law of Thermodynamics To Calculate the "Corn-Area-per-Car" Ratio. Journal of Chemical Education, 2009, 86, 579.	2.3	5
46	Surface ion association of the hexacyanoferrate(III)/(II) ion bound by 5,10,15,20-tetrakis(1-methyl-4-pyridyl)-21H,23 H-porphine or 5,10,15,20-tetrakis[4-(trimethylammonio)phenyl]-21H ,23H-porphine adsorbed on a graphite electrode. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 3355-3362.	1.7	4
47	Reaction of molecular oxygen with pyridinehemochromes in aqueous solution. Journal of the American Chemical Society, 1980, 102, 4912-4916.	13.7	3
48	Thiolated poly(Îµ-caprolactone) macroligand with vacant coordination sites on gold substrate: Synthesis and surface characterization. Surface Science, 2007, 601, 1677-1683.	1.9	3
49	Obtaining Kinetics From Continuous Processes: Sampling Multiple Time Points Concurrently With a Single Valve Rotation. Chemistry Methods, 2021, 1, 131-134.	3.8	3
50	Probing relativistic effects in the gas-phase CS2 ligation of late transition metal cations (groups 9â€“11) with rate measurements and quantum chemical calculations of ligation energies. International Journal of Mass Spectrometry, 2021, 462, 116525.	1.5	3
51	(DiMeIHeptCl)Pd: A Low-Load Catalyst for Solvent-Free (Melt) Amination. Journal of Organic Chemistry, 2021, 86, 10343-10359.	3.2	3
52	Metal Nanoparticle Impregnated Controlled-size Silica Macrospheres as a Microwave-transparent Catalyst System for MACOS. Current Nanoscience, 2016, 12, 448-454.	1.2	3
53	Methyl 2-(2-pyridyl)quinoline-4-carboxylate. Acta Crystallographica Section E: Structure Reports Online, 2001, 57, o677-o678.	0.2	2
54	Using a Pushâ^'Pull Azobenzene Haptan to Probe Surfaceâ^'Core Electronic Communication in Surface-Functionalized CdS Quantum Dots. Journal of Physical Chemistry C, 2010, 114, 20410-20416.	3.1	1

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55	Modeling ligand electrochemical parameters by repulsionâ€corrected eigenvalues. Journal of Computational Chemistry, 2021, 42, 1236-1242.	3.3	1
56	Ligand Electrochemical Parameter Approach to Molecular Design. Ïƒ-Donation, Ï€-Back Donation, and Other Metrics in Ruthenium(II) Dinitrogen Complexes. Inorganic Chemistry, 2022, 61, 1869-1880.	4.0	1
57	A pulse sequencer and transient nanoammeter system for membrane voltageâ€dependent capacitance measurements. Review of Scientific Instruments, 1994, 65, 742-746.	1.3	0