

David M Silver

List of Publications by Year in descending order

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107
papers

4,193
citations

94433

37
h-index

114465

63
g-index

114
all docs

114
docs citations

114
times ranked

1682
citing authors

#	ARTICLE	IF	CITATIONS
1	Many-body perturbation theory applied to electron pair correlation energies. I. Closed-shell first-row diatomic hydrides. <i>Journal of Chemical Physics</i> , 1975, 62, 3258-3268.	3.0	354
2	Timing of Changes in Interstitial and Venous Blood Glucose Measured With a Continuous Subcutaneous Glucose Sensor. <i>Diabetes</i> , 2003, 52, 2790-2794.	0.6	346
3	Iris Cross-sectional Area Decreases With Pupil Dilation and its Dynamic Behavior is a Risk Factor in Angle Closure. <i>Journal of Glaucoma</i> , 2009, 18, 173-179.	1.6	172
4	Algebraic approximation in many-body perturbation theory. <i>Physical Review A</i> , 1976, 14, 1949-1960.	2.5	164
5	Pressure-volume relation for the living human eye. <i>Current Eye Research</i> , 2000, 20, 115-120.	1.5	139
6	Blood flow in the human eye. <i>Acta Ophthalmologica</i> , 1989, 67, 9-13.	1.1	119
7	Estimation of pulsatile ocular blood flow from intraocular pressure. <i>Acta Ophthalmologica</i> , 1989, 67, 25-29.	1.1	114
8	Quenching of NO ₂ Fluorescence. <i>Journal of Chemical Physics</i> , 1966, 44, 718-723.	3.0	96
9	Some aspects of diagrammatic perturbation theory. <i>International Journal of Quantum Chemistry</i> , 1975, 9, 183-198.	2.0	95
10	Validity of pulsatile ocular blood flow measurements. <i>Survey of Ophthalmology</i> , 1994, 38, S72-S80.	4.0	93
11	Universal atomic basis sets. <i>Chemical Physics Letters</i> , 1978, 57, 421-422.	2.6	88
12	Electron Correlation and Separated Pair Approximation in Diatomic Molecules. II. Lithium Hydride and Boron Hydride. <i>Journal of Chemical Physics</i> , 1970, 52, 1181-1205.	3.0	86
13	Special invariance properties of the $[N+1/N]$ Padé approximants in Rayleigh-Schrödinger perturbation theory. <i>Proceedings of the Royal Society of London Series A, Mathematical and Physical Sciences</i> , 1977, 356, 363-374.	1.4	82
14	Universal basis sets and transferability of integrals. <i>International Journal of Quantum Chemistry</i> , 1978, 14, 635-639.	2.0	81
15	Electron Correlation and Separated Pair Approximation in Diatomic Molecules. I. Theory. <i>Journal of Chemical Physics</i> , 1970, 52, 1174-1180.	3.0	72
16	Diagrammatic many-body perturbation expansion for atoms and molecules: I. general organization. <i>Computer Physics Communications</i> , 1978, 14, 71-79.	7.5	68
17	Reaction paths on the H ₄ potential energy surface. <i>Journal of Chemical Physics</i> , 1973, 59, 3378-3394.	3.0	67
18	Natural Orbital Expansion of Interacting Geminals. <i>Journal of Chemical Physics</i> , 1969, 50, 5108-5116.	3.0	64

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19	Diagrammatic perturbation theory: Many-body effects in the $X1^1\Sigma^+$ states of first-row and second-row diatomic hydrides. <i>Journal of Chemical Physics</i> , 1977, 66, 5400-5411.	3.0	62
20	Diagrammatic perturbation theory: An application to the nitrogen, carbon monoxide, and boron fluoride molecules using a universal even-tempered basis set. <i>Journal of Chemical Physics</i> , 1980, 72, 2159-2165.	3.0	62
21	Pulsatile ocular blood flow in diabetic retinopathy. <i>Acta Ophthalmologica</i> , 1999, 77, 522-525.	0.3	62
22	Aqueous Flow through the Iris-Lens Channel: Estimates of Differential Pressure between the Anterior and Posterior Chambers. <i>Journal of Glaucoma</i> , 2004, 13, 100-107.	1.6	62
23	Pair-correlation energies in sodium hydride with many-body perturbation theory. <i>Physical Review A</i> , 1974, 10, 1927-1931.	2.5	61
24	Modified potentials in many-body perturbation theory. <i>Physical Review A</i> , 1976, 13, 1-12.	2.5	61
25	Electron Correlation and Separated Pair Approximation in Diatomic Molecules. III. Imidogen. <i>Journal of Chemical Physics</i> , 1970, 52, 1206-1227.	3.0	59
26	Hierarchy of symmetry conservation rules governing chemical reaction systems. <i>Journal of the American Chemical Society</i> , 1974, 96, 5959-5967.	13.7	55
27	Universal basis sets for electronic structure calculations. <i>Journal of Chemical Physics</i> , 1978, 69, 3787-3789.	3.0	55
28	Diagrammatic many-body perturbation expansion for atoms and molecules: II. Second-order and third-order ladder energies. <i>Computer Physics Communications</i> , 1978, 14, 81-89.	7.5	51
29	Many-body perturbation theory applied to hydrogen fluoride. <i>Chemical Physics Letters</i> , 1974, 29, 199-203.	2.6	49
30	Fourth-Order terms in the diagrammatic perturbation expansion for the electronic energy of atoms and molecules. <i>International Journal of Quantum Chemistry</i> , 1979, 15, 683-692.	2.0	49
31	Many-body perturbation theory applied to electron pair correlation energies. II. Closed-shell second-row diatomic hydrides. <i>Journal of Chemical Physics</i> , 1976, 64, 4578-4586.	3.0	43
32	Many-body effects in the $X1^1\Sigma^+$ states of the hydrogen fluoride, lithium fluoride and boron fluoride molecules. <i>Molecular Physics</i> , 1977, 33, 1177-1193.	1.7	43
33	Bilinear Orbital Expansion of Geminal-Product Correlated Wavefunctions. <i>Journal of Chemical Physics</i> , 1970, 52, 299-303.	3.0	42
34	Overlap Integrals over Slater-Type Atomic Orbitals. <i>Journal of Chemical Physics</i> , 1968, 49, 4301-4305.	3.0	41
35	Universal basis sets in molecular calculations. <i>Chemical Physics Letters</i> , 1979, 63, 367-369.	2.6	41
36	Rotationally inelastic collisions of LiH with He. I. Abinitio potential energy surface. <i>Journal of Chemical Physics</i> , 1980, 72, 6445-6451.	3.0	39

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37	Diagrammatic perturbation theory: evaluation of fourth-order energy terms involving quadruply-excited states for closed-shell systems. <i>Molecular Physics</i> , 1978, 36, 1539-1548.	1.7	38
38	Acute effect of latanoprost on pulsatile ocular blood flow in normal eyes. <i>American Journal of Ophthalmology</i> , 2001, 131, 198-202.	3.3	37
39	Modified potentials in many-body perturbation theory: Three-body and four-body contributions. <i>Physical Review A</i> , 1977, 16, 477-483.	2.5	36
40	Coulomb Integrals over Slater-type Atomic Orbitals. <i>Journal of Chemical Physics</i> , 1968, 49, 4306-4311.	3.0	35
41	Correlation energy in LiH, BH, and HF with many-body perturbation theory using slater-type atomic orbitals. <i>International Journal of Quantum Chemistry</i> , 1974, 8, 271-276.	2.0	35
42	Comparison within the algebraic approximation of configuration interaction and many-body perturbation theory for the Be ground state. <i>Physical Review A</i> , 1979, 19, 1375-1382.	2.5	34
43	On the low-lying states of MgO. II. <i>Journal of Chemical Physics</i> , 1981, 74, 2379-2383.	3.0	32
44	Diagrammatic perturbation theory: $N^2X^{\infty}+g$. <i>Journal of Chemical Physics</i> , 1977, 67, 1689-1696.	3.0	31
45	Diagrammatic perturbation theory: An application to the LiH and FH molecules using a universal even-tempered basis set. <i>Journal of Chemical Physics</i> , 1982, 77, 3674-3675.	3.0	31
46	Reaction path properties at critical points on potential surfaces. <i>Journal of Chemical Physics</i> , 1975, 62, 4050-4052.	3.0	30
47	Diagrammatic many-body perturbation expansion for atoms and molecules: IV. Fourth-order linked diagrams involving quadruply-excited states. <i>Computer Physics Communications</i> , 1979, 17, 47-50.	7.5	29
48	An SCF and MCSCF description of the low-lying states of MgO. <i>Journal of Chemical Physics</i> , 1980, 73, 2867-2870.	3.0	29
49	On the contribution of higher-order excitations to correlation energies: The ground state of the water molecule. <i>Theoretica Chimica Acta</i> , 1979, 54, 83-91.	0.8	25
50	LoSurdo-Stark effect for a hydrogenic impurity in a thin layer: Two-dimensional model. <i>Physical Review B</i> , 1987, 35, 2513-2516.	3.2	22
51	Third-order many-body perturbation theory for the ground state of the carbon monoxide molecule. <i>International Journal of Quantum Chemistry</i> , 1977, 12, 737-757.	2.0	21
52	Piecewise polynomial basis functions for configuration interaction and many-body perturbation theory calculations. The radial limit of helium. <i>Journal of Chemical Physics</i> , 1978, 68, 616-618.	3.0	21
53	Unified Treatment of Diatomic Electron Interaction Integrals over Slater-type Atomic Orbitals. <i>Journal of Mathematical Physics</i> , 1971, 12, 1937-1943.	1.1	20
54	Valence-bond approach to conservation of symmetry in concerted reactions. <i>Journal of the American Chemical Society</i> , 1975, 97, 2645-2654.	13.7	20

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55	Gender and Age Effects on Pulsatile Ocular Blood Flow. <i>Ophthalmic Research</i> , 2003, 35, 247-250.	1.9	20
56	Reactive and inelastic scattering of H ₂ +D ₂ using a London-type potential energy surface. <i>Journal of Chemical Physics</i> , 1976, 65, 311-326.	3.0	17
57	Plasminogen activator inhibitor in human tears after laser refractive surgery. <i>Journal of Cataract and Refractive Surgery</i> , 2008, 34, 897-901.	1.5	17
58	Interaction energy between two ground-state helium atoms using many-body perturbation theory. <i>Physical Review A</i> , 1980, 21, 1106-1117.	2.5	16
59	Quantum field theoretical methods in chemically bonded systems. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1989, 22, L539-L545.	1.5	16
60	Character of the Least-Energy Trajectory near the Saddle-Point on H ₃ Potential Surfaces. <i>Journal of Chemical Physics</i> , 1972, 57, 586-587.	3.0	15
61	Quantum field theoretical methods in chemically bonded systems II. <i>Theoretica Chimica Acta</i> , 1992, 84, 1-19.	0.8	15
62	A field-theoretic model Hamiltonian for the proper dissociation of multiple bonds. <i>Journal of Chemical Physics</i> , 1984, 81, 4546-4548.	3.0	14
63	Energy integrals involving both Slater-type and Gaussian atomic orbitals. <i>Journal De Physique</i> , 1971, 32, 129-133.	1.8	14
64	Pressure-volume relation for the living human eye. <i>Current Eye Research</i> , 2000, 20, 115-120.	1.5	14
65	Basis sets of gaussian and Slater-type atomic orbitals. <i>Chemical Physics Letters</i> , 1970, 7, 511-516.	2.6	13
66	Electron Pair Correlation: Products of $N(N-1)/2$ Geminals for N Electrons. <i>Journal of Chemical Physics</i> , 1971, 55, 1461-1467.	3.0	13
67	Gaussian expansions for polyatomic molecules. <i>Molecular Physics</i> , 1971, 22, 1069-1080.	1.7	12
68	Diagrammatic perturbation theory applied to the ground state of the water molecule. <i>Journal of Chemical Physics</i> , 1977, 67, 5552-5557.	3.0	12
69	Plasminogen activator activity and inhibition in rabbit tears after photorefractive keratectomy. <i>Experimental Eye Research</i> , 2003, 77, 675-680.	2.6	12
70	Valence bond model potential energy surface for H ₄ . <i>Journal of Chemical Physics</i> , 1980, 72, 3859-3868.	3.0	11
71	Urokinase-Type Plasminogen Activator to Prevent Haze after Photorefractive Keratectomy, and Pregnancy as a Risk Factor for Haze in Rabbits. <i>Investigative Ophthalmology and Visual Science</i> , 2004, 45, 1329-1333.	3.3	11
72	Comparison of reactive and inelastic scattering of H ₂ +D ₂ using four semiempirical potential energy surfaces. <i>Journal of Chemical Physics</i> , 1980, 72, 3869-3879.	3.0	10

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73	Quantum field theoretical methods in chemically bonded systems III. Theoretica Chimica Acta, 1992, 84, 21-35.	0.8	10
74	Midcourse Space Experiment contamination modeling. , 1996, , .		9
75	Reactive and inelastic scattering of H ₂ +D ₂ using a repulsive model potential energy surface. Journal of Chemical Physics, 1978, 68, 3607-3617.	3.0	8
76	Special invariance properties of [N +1/ N] Padé approximants in Rayleigh-Schrödinger perturbation theory II. Molecular interaction energies. Proceedings of the Royal Society of London Series A, Mathematical and Physical Sciences, 1982, 383, 477-483.	1.4	8
77	Nondegenerate many-body theory and the treatment of conservation principles. Journal of Chemical Physics, 1986, 85, 5847-5849.	3.0	8
78	Quantum field theoretical methods in chemically bonded systems IV. Theoretica Chimica Acta, 1992, 84, 37-53.	0.8	8
79	Metric evaluation in the space of exponential and gaussian functions. Chemical Physics Letters, 1971, 10, 227-229.	2.6	7
80	Quantum field theoretical methods in chemically bonded systems. V. Potential energy curves for N ₂ (X ¹ g ⁺) ? 2N (4S). International Journal of Quantum Chemistry, 1993, 48, 467-478.	2.0	7
81	<title>Total pressure sensor results from the early operations phase of the MSX mission</title> . , 1996, 2864, 138.		7
82	Numerical Infinite-Order Perturbation Theory. , 1976, , 393-408.		7
83	Reaction paths for bimolecular hydrogen exchange. Chemical Physics Letters, 1972, 14, 105-107.	2.6	6
84	Temperature dependence of the reaction rate for H+CF ₃ Br. Journal of Chemical Physics, 1981, 74, 1745-1749.	3.0	5
85	Midcourse Space Experiment Contamination Measurement During Cryogen Phase. Journal of Spacecraft and Rockets, 1998, 35, 170-176.	1.9	5
86	Rotationally inelastic collisions of LiH with He: Quasiclassical dynamics of atom-rigid rotor trajectories. Journal of Chemical Physics, 1984, 81, 1682-1691.	3.0	4
87	Lewis structures and Feynman diagrams: The treatment of geminal correlation in Fock space. International Journal of Quantum Chemistry, 1986, 30, 81-94.	2.0	4
88	Reactions of Carbonaceous Smoke Particles with Atmospheric Ozone. Aerosol Science and Technology, 1989, 10, 332-336.	3.1	4
89	<title>Outgassing issues and measurement protocols for spacecraft coatings</title> . , 1994, , .		4
90	Plasminogen activator activity in tears of pregnant women. PLoS ONE, 2017, 12, e0177003.	2.5	4

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91	Overlap as a Criterion for Conduction in the Cubic Tungsten Bronzes. Journal of Chemical Physics, 1967, 46, 4288-4291.	3.0	3
92	Particle environment surrounding the Midcourse Space Experiment spacecraft. Journal of Spacecraft and Rockets, 1999, 36, 561-565.	1.9	3
93	<title>Modeling of spacecraft contamination outgassing as a diffusion controlled process</title>. , 1992, 1754, 37.		2
94	QCM flight measurements of contaminant films and their effect on midcourse space experiment (MSX) satellite optics. , 1997, 3124, 34.		2
95	<title>Contamination lessons learned from the Midcourse Space Experiment</title>. , 1998, 3427, 28.		2
96	In vivo corneal confocal microscopy and optical coherence tomography on eyes of participants with type 2 diabetes mellitus and obese participants without diabetes. Graefe's Archive for Clinical and Experimental Ophthalmology, 2021, 259, 3339-3350.	1.9	2
97	A qualitative analysis of individual trajectories in the rotationally inelastic LiH ⁺ -He collision system. Chemical Physics Letters, 1982, 93, 247-252.	2.6	1
98	The 8-year report on MSX thermal blanket outgassing: an inexhaustible reservoir. , 2004, , .		1
99	Urokinase Down-Regulation by Aprotinin in Rabbit Corneal Cells After Photorefractive Keratectomy. Current Eye Research, 2010, 35, 806-811.	1.5	1
100	Poisson equation for molecular exchange, hybrid and coulomb electron repulsion integrals. International Journal of Quantum Chemistry, 1971, 5, 505-512.	2.0	0
101	Chemistry Computer Center. Science, 1980, 210, 716-719.	12.6	0
102	<title>Electromagnetic interaction of spacecraft with ambient environment</title>. , 1993, , .		0
103	Effect of the polar auroral regions on the midcourse space experiment cold cathode pressure sensor. , 1997, , .		0
104	<title>MSX spacecraft contamination control methodology and results</title>. , 1998, , .		0
105	<title>Discrete particle release observed on the Midcourse Space Experiment satellite</title>. , 1998, , .		0
106	<title>Ambient pressure environment surrounding the MSX spacecraft during the first year on orbit</title>. , 1998, , .		0
107	On the contribution of higher-order excitations to correlation energies: The ground state of the water molecule. Theoretica Chimica Acta, 1979, 54, 83-91.	0.8	0