Robert Snider

List of Publications by Year
in descending order

59 papers	1,338 citations	361045 20 h-index	344852 36 g-index
59 all docs	59 docs citations	59 times ranked	247 citing authors

#	Article	IF	Citations
1	Irreducible Cartesian Tensors. Journal of Chemical Physics, 1965, 43, 2269-2275.	1.2	142
2	Generalized Boltzmann Equation for Molecules with Internal States. Journal of Chemical Physics, 1971, 55, 1555-1566.	1.2	122
3	On the Evaluation of Kinetic Theory Collision Integrals: Diamagnetic Diatomic Molecules. Journal of Chemical Physics, 1972, 57, 542-561.	1.2	95
4	Irreducible Cartesian Tensors. II. General Formulation. Journal of Mathematical Physics, 1970, 11, 1003-1017.	0.5	87
5	Irreversible Thermodynamics of a Fluid System with Spin. Journal of Chemical Physics, 1967, 46, 3163-3172.	1.2	73
6	Perturbation Variation Methods for a Quantum Boltzmann Equation. Journal of Mathematical Physics, 1964, 5, 1580-1587.	0.5	70
7	Senftlebenâ€"Beenakker Effect for the Viscosity of a Dilute Gas of Diamagnetic Diatomic Molecules. Journal of Chemical Physics, 1967, 47, 4117-4128.	1.2	63
8	Thermal Conductivity of a Gas of Rotating Diamagnetic Molecules in an Applied Magnetic Field. Journal of Chemical Physics, 1967, 46, 2387-2398.	1.2	56
9	Thermal Conductivity of a Gas with Rotational States. Journal of Chemical Physics, 1964, 41, 3185-3194.	1.2	47
10	Collision Theory of Relaxation Processes. Journal of Chemical Physics, 1967, 46, 3937-3940.	1.2	45
11	Kinetic theory of dimer formation and decay. Journal of Chemical Physics, 1974, 61, 2320-2329.	1.2	40
12	Transport Properties of Gases with Rotational States. II. Journal of Chemical Physics, 1965, 43, 2276-2283.	1.2	39
13	Variational Methods for Solving the Boltzmann Equation. Journal of Chemical Physics, 1964, 41, 591-595.	1.2	33
14	Qualitative Theory of the Senftleben Effects. Journal of Chemical Physics, 1972, 57, 4266-4278.	1.2	31
15	Collisionally Uncoupled Model for the Contribution of Orientational Polarizations to Transport Properties of Dilute Gases. II. The Shear Viscosity. Journal of Chemical Physics, 1972, 56, 2056-2071.	1.2	27
16	Interpretation of ES, CS, and IOS approximations within a translationalâ€"internal coupling scheme. I. Atomâ€"diatom collisions. Journal of Chemical Physics, 1979, 71, 4284-4296.	1.2	24
17	Quantum kinetic theory of chemical recombination. Journal of Chemical Physics, 1974, 61, 2330-2338.	1.2	22
18	Interpretation of ES, CS, and IOS approximations within a translationalâ€internal coupling scheme. II. Application to atomâ€"diatom kinetic cross sections. Journal of Chemical Physics, 1980, 72, 2445-2458.	1.2	22

#	Article	IF	Citations
19	Simple example illustrating the different parametrizations of the Mo/ller operator. Journal of Chemical Physics, 1988, 88, 6438-6447.	1.2	22
20	Differences in fluid dynamics associated with an atomic versus a molecular description of the same system. Journal of Chemical Physics, 1976, 65, 3407-3422.	1.2	21
21	Rotational invariance and molecular collisions. Journal of Chemical Physics, 1974, 61, 1151-1159.	1.2	20
22	Differential cross section from an operator viewpoint. Journal of Chemical Physics, 1975, 63, 3256-3262.	1.2	20
23	Quantum corrections to the momentum distribution of moderately dense Boltzmann gases. I. Smooth potentials. Journal of Chemical Physics, 1976, 65, 4958-4967.	1.2	19
24	Highâ€Frequency Effects in the Spin Relaxation of Diatomic Gases. Journal of Chemical Physics, 1969, 50, 4082-4089.	1.2	18
25	Comparison of positive flux operators for transition state theory using a solvable model. Journal of Chemical Physics, 1996, 104, 7015-7026.	1.2	16
26	On the evaluation of kinetic theory collision integrals. II. Angular momentum coupling schemes. Journal of Chemical Physics, 1974, 61, 1160-1171.	1.2	15
27	Symmetry of the pressure tensor in macromolecular fluids. Journal of Chemical Physics, 1976, 65, 3423-3426.	1.2	14
28	Collisionally Uncoupled Model for the Contribution of Orientational Polarizations to Transport Properties of Dilute Gases. I. Journal of Chemical Physics, 1972, 56, 2049-2055.	1.2	13
29	Molecular scattering equations derived from the rotational invariance of wave operators. Journal of Chemical Physics, 1974, 61, 5250-5256.	1.2	11
30	Equal reaction rates for all recombination pathways. Journal of Chemical Physics, 1997, 106, 1463-1466.	1.2	11
31	On the contribution of angular momentum polarization to gas phase thermal conductivity. Journal of Chemical Physics, 1979, 70, 1075-1077.	1.2	9
32	On different forms for the binary transition superoperator. Journal of Chemical Physics, 1976, 64, 5100-5103.	1.2	8
33	A comparison of local and global single Gaussian approximations to time dynamics: Oneâ€dimensional systems. Journal of Chemical Physics, 1987, 87, 910-920.	1.2	8
34	Initial slips and transient effects in relaxation phenomena. Journal of Chemical Physics, 1977, 67, 5517-5524.	1.2	7
35	Dirac states for unit position and momentum: Phase consistency of their angular momentum representations. Journal of Chemical Physics, 1982, 76, 3543-3546.	1.2	7
36	Chain relations of reduced distribution functions and their associated correlation functions. Journal of Chemical Physics, 1998, 108, 706-714.	1.2	6

#	Article	IF	Citations
37	Center of mass description of polymer flow: Friction approximation for the pressure tensor with antisymmetric stress. Journal of Chemical Physics, 1978, 68, 2477-2486.	1.2	5
38	Asymptotic form of quantum momentum distributions. Journal of Chemical Physics, 1979, 71, 1740-1753.	1.2	4
39	On the choice of phase in the CS and IOS approximation. Journal of Chemical Physics, 1982, 76, 3547-3552.	1.2	4
40	Internal momentum equilibration and the configurational distribution function for dilute macromolecular solutions: Rigid dumbbells in steady flows. Journal of Chemical Physics, 1983, 78, 1600-1606.	1.2	4
41	Viscomagnetic effect:jâ€magnitude weighting for Arâ€“N2. Journal of Chemical Physics, 1984, 81, 3482-3488.	1.2	4
42	On the choice of phase in the CS approximation: Integral equation approach. Journal of Chemical Physics, 1986, 85, 4381-4391.	1.2	4
43	Complete binary collision approximation for the gas transport coefficients via the time correlation formulation. Journal of Chemical Physics, 1998, 109, 3452-3460.	1.2	4
44	Multicomponent gas transport coefficients: Alternate formulations. Physical Review E, 2010, 82, 051201.	0.8	4
45	Quantum corrections to the momentum distribution of moderately dense Boltzmann gases. II. Hard sphere potentials. Journal of Chemical Physics, 1976, 65, 4968-4978.	1.2	3
46	Interpretation of ES, CS, and IOS approximations within a translationalâ€“internal coupling scheme. IV. ES and IOS moleculeâ€“molecule cross sections. Journal of Chemical Physics, 1981, 74, 5572-5585.	1.2	3
47	A pictorial representation for multispin evolutions. Concepts in Magnetic Resonance, 1995, 7, 153-163.	1.3	3
48	Interpretation of ES, CS, and IOS approximations within a translationalâ€“internal coupling scheme. III. Exact and CS moleculeâ€“molecule cross sections. Journal of Chemical Physics, 1981, 74, 1750-1762.	1.2	2
49	Solvable model for inelastic collisions. American Journal of Physics, 1994, 62, 848-852.	0.3	2
50	Moderately dense gas transport coefficients via time correlation functions. I. General formalism. Journal of Chemical Physics, 1999, 111, 6909-6921.	1.2	2
51	Bound-free gas transport coefficients via the time correlation formulation based on an atomic picture. Journal of Chemical Physics, 1999, 110, 8533-8542.	1.2	2
52	Equations of change with dimer formation and decay. Journal of Chemical Physics, 1988, 89, 5096-5114.	1.2	1
53	Presence of halfâ€bound states in equilibrium: A separable potential estimate. Journal of Chemical Physics, 1990, 92, 2559-2571.	1.2	1
54	The equilibrium pair distribution function of a gas: Aspects associated with the presence of bound states. Journal of Chemical Physics, 1993, 99, 9111-9121.	1.2	1

#	Article	IF	Citations
55	Moderately dense gas transport coefficients via time correlation functions. II. Shear viscosity and thermal conductivity. Journal of Chemical Physics, 1999, 111, 6922-6931.	1.2	1
56	Irreversible thermodynamics of multicomponent fluids and its statistical mechanics basis. Physical Review E, 2021, 103, 032121.	0.8	1
57	Simplified derivation of Hellerâ€™s renormalized Liouville equation. Journal of Chemical Physics, 1977, 66, 3845-3846.	1.2	0
58	A kinetic theory ansatz for correlated collisions. Journal of Chemical Physics, 1978, 68, 5118-5120.	1.2	0
59	Reply to â€˜â€˜Comment on â€˜Dirac states for unit position and momentum: Phase consistency of their	1.2	0