Kenneth G Mckendrick

List of Publications by Year
in descending order

98 papers	2,459 citations	186265 28 h-index	265206 42 g-index
104 all docs	104 docs citations	104 times ranked	976 citing authors

#	Article	IF	Citations
1	Superthermal widths of the collision energy distributions in hot atom reactions. The Journal of Physical Chemistry, 1991, 95, 8205-8207.	2.9	115
2	Rotational and spin-orbit effects in the dynamics of O(3Pj)+hydrocarbon reactions. I. Experimental results. Journal of Chemical Physics, 1997, 106, 9172-9181.	3.0	91
3	Nanosegregation and Structuring in the Bulk and at the Surface of Ionic-Liquid Mixtures. Journal of Physical Chemistry B, 2017, 121, 6002-6020.	2.6	82
4	Dynamics of Inelastic Scattering of OH Radicals from Reactive and Inert Liquid Surfaces. Journal of Physical Chemistry C, 2008, 112, 10868-10877.	3.1	74
5	Rovibronic state to rovibronic state reaction dynamics: O(3P)+HCl(v=2,J)â†'OH(vâ€²,Nâ€²)+Cl(2P). Journal of Chemical Physics, 1987, 87, 7341-7342.	3.0	64
6	The Dynamics of Reactions of O(³P) Atoms with Saturated Hydrocarbons and Related Compounds. Progress in Reaction Kinetics and Mechanism, 2000, 25, 299-370.	2.1	64
7	Dynamics of the reaction atomic oxygen(3P) + hydrogen bromide: experimental investigation and theoretical modeling. The Journal of Physical Chemistry, 1988, 92, 5530-5540.	2.9	60
8	Orientation and alignment depolarization in OH(Xâ€‰Î2)+Ar/He collisions. Journal of Chemical Physics, 2008, 129, 074304.	3.0	53
9	Do vectors point the way to understanding energy transfer in molecular collisions?. Chemical Society Reviews, 2008, 37, 732.	38.1	52
10	Dynamics of the gasâ€“liquid interfacial reaction of O(3P) atoms with hydrocarbons. Journal of Chemical Physics, 2003, 119, 9985-9988.	3.0	51
11	Scattering Dynamics of Hyperthermal Oxygen Atoms on Ionic Liquid Surfaces: [emim][NTf₂] and [C₁₂mim][NTf₂]. Journal of Physical Chemistry C, 2010, 114, 4015-4027.	3.1	49
12	Comparison of the Ca+HF(DF) and Sr+HF(DF) reaction dynamics. Journal of Chemical Physics, 1988, 89, 6283-6294.	3.0	47
13	The effects of surface temperature on the gas-liquid interfacial reaction dynamics of O(3P)+squalane. Journal of Chemical Physics, 2005, 122, 024712.	3.0	45
14	Direct Gasâ^'Liquid Interfacial Dynamics:Â The Reaction between O(3P) and a Liquid Hydrocarbon. Journal of Physical Chemistry B, 2006, 110, 2771-2776.	2.6	45
15	O(³P) Atoms as a Chemical Probe of Surface Ordering in Ionic Liquids. Journal of Physical Chemistry A, 2010, 114, 4896-4904.	2.5	45
16	Rotational and spin-orbit effects in the dynamics of O(3Pj)+hydrocarbon reactions. II. Models for spin-orbit propensities. Journal of Chemical Physics, 1997, 106, 9182-9189.	3.0	44
17	Ionic Liquidâ€“Vacuum Interfaces Probed by Reactive Atom Scattering: Influence of Alkyl Chain Length and Anion Volume. Journal of Physical Chemistry C, 2015, 119, 5491-5505.	3.1	43
18	Molecular Dynamics Study to Identify the Reactive Sites of a Liquid Squalane Surface. Journal of Physical Chemistry B, 2006, 110, 11717-11724.	2.6	41

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19	Inelastic scattering of OH(Xâ€‰2Î) with Ar and He: a combined polarization spectroscopy and quantum scattering study. Physical Chemistry Chemical Physics, 2007, 9, 4414.	2.8	41
20	Measurement of orientation and alignment moment relaxation by polarization spectroscopy: Theory and experiment. Journal of Chemical Physics, 2004, 120, 7910-7926.	3.0	39
21	Collision dynamics and reactive uptake of OH radicals at liquid surfaces of atmospheric interest. Physical Chemistry Chemical Physics, 2011, 13, 8457.	2.8	37
22	O(³P) Atoms as a Probe of Surface Ordering in 1-Alkyl-3-methylimidazolium-Based Ionic Liquids. Journal of Physical Chemistry Letters, 2010, 1, 429-433.	4.6	36
23	Reactions of CHF (Xì*f* ¹A') and NCO (Xì*f* ²Î) Radicals. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1985, 89, 335-336.	0.9	35
24	Temperature Dependence of OH Yield, Translational Energy, and Vibrational Branching in the Reaction of O(³P)(g) with Liquid Squalane. Journal of Physical Chemistry C, 2007, 111, 14833-14842.	3.1	34
25	Effect of collisions on one-color polarization spectroscopy of OH Aâ€Š2Î£+â€“Xâ€Š2Î. Journal of Chemical Physics, 2003, 119, 9461-9468.	3.0	33
26	Orientation and alignment moments in two-color polarization spectroscopy. Journal of Chemical Physics, 2005, 122, 164309.	3.0	33
27	Atomic and Molecular Collisions at Liquid Surfaces. Annual Review of Physical Chemistry, 2016, 67, 515-540.	10.8	31
28	Vibrational relaxation of NCO(Xì*f*) by rare gases, and rate constant measurement of the NCO + NO reaction. Chemical Physics Letters, 1986, 127, 125-129.	2.6	30
29	How Penetrable Are Thioalkyl Self-Assembled Monolayers?. Journal of Physical Chemistry Letters, 2010, 1, 1917-1921.	4.6	29
30	Inelastic scattering of hydroxyl radicals with helium and argon by velocity-map imaging. Nature Chemistry, 2012, 4, 985-989.	13.6	29
31	Product state distributions from the reaction O(3 P)+ HBr. Faraday Discussions of the Chemical Society, 1987, 84, 39.	2.2	28
32	Quantitative Laser-Induced Fluorescence Spectroscopy of the CF A2Î£+â^'X2Î Transition:Â Electronic Transition Dipole Moment Function and Predissociation. The Journal of Physical Chemistry, 1996, 100, 47-53.	2.9	28
33	Nanosecond pulse width dependence of nonphotochemical laser-induced nucleation of potassium chloride. Chemical Physics Letters, 2009, 481, 25-28.	2.6	28
34	State-specific collisional coupling of the CH A 2Î" and B 2Î£- states. Physical Chemistry Chemical Physics, 2000, 2, 461-471.	2.8	27
35	Influence of Molecular and Supramolecular Structure on the Gasâ^'Liquid Interfacial Reactivity of Hydrocarbon Liquids with O(³P) Atoms. Journal of Physical Chemistry C, 2008, 112, 1524-1532.	3.1	27
36	Dynamics of the Reaction of O(³P) Atoms with Alkylthiol Self-assembled Monolayers. Journal of Physical Chemistry A, 2009, 113, 4320-4329.	2.5	27

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37	Collisional depolarisation of rotational angular momentum: influence of the potential energy surface on the collision dynamics?. International Reviews in Physical Chemistry, 2012, 31, 69-109.	2.3	27
38	Rotational angular momentum polarization: The influence of stray magnetic fields. Journal of Chemical Physics, 2008, 128, 021101.	3.0	26
39	Elastic Depolarization of OH(A) by He and Ar: A Comparative Study. Journal of Physical Chemistry A, 2009, 113, 15156-15170.	2.5	26
40	Reactive Scattering as a Chemically Specific Analytical Probe of Liquid Surfaces. Journal of Physical Chemistry Letters, 2011, 2, 12-18.	4.6	25
41	The dynamics of O(3P)â€‰+â€‰deuterated hydrocarbons: influences on product rotation and fine-structure state partitioning. Physical Chemistry Chemical Physics, 2002, 4, 473-481.	2.8	24
42	Dynamics of interfacial reactions between O(³P) atoms and long-chain liquid hydrocarbons. Physica Scripta, 2007, 76, C42-C47.	2.5	23
43	Collisions of electronically excited molecules: differential cross-sections for rotationally inelastic scattering of NO(A²Î£⁺) with Ar and He. Molecular Physics, 2012, 110, 1693-1703.	1.7	23
44	Rotational Alignment of NO (A²Î£⁺) from Collisions with Ne. Journal of Physical Chemistry A, 2013, 117, 8163-8174.	2.5	23
45	Determining the composition of the vacuumâ€“liquid interface in ionic-liquid mixtures. Faraday Discussions, 2018, 206, 497-522.	3.2	23
46	Non-intuitive rotational reorientation in collisions of NO(A 2Î£+) with Ne from direct measurement of a four-vector correlation. Nature Chemistry, 2018, 10, 1148-1153.	13.6	23
47	Product-state-resolved dynamics of the elementary reaction of atomic oxygen with molecular hydrogen, O(3P)Â+ÂD2Âá†'ÂOD(X2Î)Â+ÂD. Nature Chemistry, 2013, 5, 315-319.	13.6	22
48	Scattering Dynamics of Oxygen Atoms on Imidazolium Tetrafluoroborate Ionic Liquid Surfaces: Dependence on Alkyl Chain Length. Journal of Physical Chemistry C, 2016, 120, 12472-12483.	3.1	21
49	Differential scattering cross-sections for CNA2Î+Ar. Journal of Chemical Physics, 2007, 126, 041103.	3.0	20
50	Depolarisation of rotational orientation and alignment in OH (X2Î) + Xe collisions. Physical Chemistry Chemical Physics, 2009, 11, 8804.	2.8	20
51	Communication: Direct angle-resolved measurements of collision dynamics with electronically excited molecules: NO(A2Î£+) + Ar. Journal of Chemical Physics, 2011, 134, 091101.	3.0	20
52	What determines the disposal of energy in the products of electronically inelastic collisions? A comparative case study of SiCl and SiF. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 1921-1932.	1.7	19
53	Frequency modulated spectroscopy as a probe of molecular collision dynamics. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2006, 63, 910-922.	3.9	17
54	Efficiencies of state and velocity-changing collisions of superthermal CN A2Î with He, Ar, N2and O2. Physical Chemistry Chemical Physics, 2007, 9, 747-754.	2.8	17

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55	Collisional depolarization of rotational angular momentum: what are the observables and how can they be measured?. Molecular Physics, 2011, 109, 2565-2585.	1.7	17
56	Rotationally inelastic scattering of NO(A2Î£+) + Ar: Differential cross sections and rotational angular momentum polarization. Journal of Chemical Physics, 2015, 143, 204301.	3.0	17
57	Depolarisation of rotational orientation and alignment of OH (X2Î) in collisions with molecular partners: N2 and O2. Physical Chemistry Chemical Physics, 2009, 11, 8813.	2.8	16
58	Site and bond-specific dynamics of reactions at the gasâ€“liquid interface. Physical Chemistry Chemical Physics, 2014, 16, 173-183.	2.8	16
59	Velocity-averaging effects on polarisation measurements in hot atom reactions. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 1527.	1.7	15
60	Vibrational transition probabilities in the B-X and C-X systems of the SiF radical. Chemical Physics, 1994, 187, 87-95.	1.9	15
61	Collision-Partner Dependence of Energy Transfer between the CH A2Î" and B2Î£-States. Journal of Physical Chemistry A, 2005, 109, 542-553.	2.5	15
62	Rotationally elastic and inelastic dynamics of NO(X2Î, v = 0) in collisions with Ar. Journal of Chemical Physics, 2011, 135, 234304.	3.0	15
63	Hiding the Headgroup? Remarkable Similarity in Alkyl Coverage of the Surfaces of Pyrrolidinium- and Imidazolium-Based Ionic Liquids. Journal of Physical Chemistry C, 2016, 120, 27369-27379.	3.1	15
64	Pair-correlated stereodynamics for diatom-diatom rotational energy transfer: NO(A2Î£+) + N2. Journal of Chemical Physics, 2017, 147, 013912.	3.0	15
65	Rate constants for the de-excitation of the bending vibrational levels of NCO(X) by helium, neon, argon, krypton and xenon. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 405.	1.7	14
66	Elastic depolarization and polarization transfer in CN(A²Î,v= 4)+Ar collisions. Molecular Physics, 2010, 108, 847-863.	1.7	14
67	Comparative stereodynamics in molecule-atom and molecule-molecule rotational energy transfer: NO(A2Î£+) + He and D2. Journal of Chemical Physics, 2016, 145, 084312.	3.0	14
68	Inelastic scattering of OH radicals from organic liquids: isolating the thermal desorption channel. Physical Chemistry Chemical Physics, 2013, 15, 12852.	2.8	13
69	Complete State-Resolved Non-Adiabatic Dynamics of the O(³P) + D₂ â†' OD(X²Î) + D Reaction. Journal of the American Chemical Society, 2014, 136, 12371-12384.	13.7	12
70	Experimental testing ofab initiopotential energy surfaces: Stereodynamics of NO(A2Î£+) + Ne inelastic scattering at multiple collision energies. Journal of Chemical Physics, 2016, 145, 174304.	3.0	11
71	Probing Conformational Heterogeneity at the Ionic Liquidâ€“Vacuum Interface by Reactive-Atom Scattering. Journal of Physical Chemistry Letters, 2019, 10, 156-163.	4.6	11
72	State-to-state collisional energy transfer in electronically excited silicon monochloride radicals. The Journal of Physical Chemistry, 1993, 97, 1389-1399.	2.9	10

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73	Rotational State-Specific Dynamics of SiF C2Î”â¾B2Î£+ Collision-Induced Transfer. Journal of Physical Chemistry A, 1998, 102, 51-59.	2.5	10
74	Polarisation effects in electronically inelastic collisions: SiFC2Î”+H2â†'SiFBâ€ˆ+H2. Chemical Physics, 1998, 233, 45-55.	1.9	9
75	Rotational-state resolved coupling of CH A 2Î” and B 2Î£- in collisions with CO2. Physical Chemistry Chemical Physics, 2000, 2, 5553-5559.	2.8	9
76	Rotational energy transfer in collisions of CH A2Î”, vâ€‰=â€‰0 with Ar, N2and CO2. Physical Chemistry Chemical Physics, 2002, 4, 5768-5777.	2.8	9
77	Dynamics of the Gasâ¾Liquid Interfacial Reaction of O(1D) with a Liquid Hydrocarbon. Journal of Physical Chemistry A, 2011, 115, 7210-7219.	2.5	9
78	Reactive-Atom Scattering from Liquid Crystals at the Liquidâ€“Vacuum Interface: [C₁₂mim][BF₄] and 4-Cyano-4â€²-Octylbiphenyl (8CB). Langmuir, 2016, 32, 9938-9949.	3.5	9
79	Laser-induced fluorescence and vibrational relaxation of the phenyl nitrene radical. Journal of the Chemical Society, Faraday Transactions 2, 1987, 83, 2011.	1.1	8
80	Vibrational transition probabilities in the B-X and B'-X systems of the chlorosilylidyne radical. The Journal of Physical Chemistry, 1992, 96, 9703-9709.	2.9	8
81	Depolarization of rotational angular momentum in CN(A2Î, v = 4) + Ar collisions. Journal of Chemical Physics, 2012, 136, 164306.	3.0	8
82	Collision-Energy Dependence of the Uptake of Hydroxyl Radicals at Atmospherically Relevant Liquid Surfaces. Journal of Physical Chemistry C, 2018, 122, 6648-6660.	3.1	8
83	Surface Structure of Alkyl/Fluoroalkylimidazolium Ionicâ€“Liquid Mixtures. Journal of Physical Chemistry B, 2022, 126, 1962-1979.	2.6	8
84	Intramolecular rearrangement in the infrared multiple-photon dissociation of dichlorodifluoroethylene. The Journal of Physical Chemistry, 1988, 92, 1839-1846.	2.9	7
85	Velocity-averaging effects in beam-gas dynamics experiments. The Journal of Physical Chemistry, 1991, 95, 8255-8263.	2.9	7
86	State-specific collisional energy transfer in electronically excited SiF radicals: dramatic contrasts with SiCl. Chemical Physics, 1994, 187, 79-86.	1.9	7
87	Parity-dependent oscillations in collisional polarization transfer: CN(A2Î, v = 4) + Ar. Journal of Chemical Physics, 2013, 139, 124304.	3.0	7
88	Phosphorus-31 NMR investigation of the comparative hydrolytic breakdown of nickel(II) and cadmium(II)versus zinc(II) bis(O,O-diethyl dithiophosphates) in an aqueous medium. Journal of the Chemical Society Perkin Transactions II, 1994, , 373.	0.9	6
89	Depolarization of rotational angular momentum in open-shell collisions: OH+rare gases. Physica Scripta, 2009, 80, 048111.	2.5	6
90	Real-space laser-induced fluorescence imaging applied to gas-liquid interfacial scattering. Journal of Chemical Physics, 2019, 151, .	3.0	5

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91	Inelastic Scattering of CN Radicals at the Gasâ€“Liquid Interface Probed by Frequency-Modulated Absorption Spectroscopy. Journal of Physical Chemistry C, 2020, 124, 16439-16448.	3.1	5
92	Large rotational energy release in collision-induced SiF C2Î”-B2Î£+ valence-Rydberg transfer. Chemical Physics Letters, 1995, 243, 564-570.	2.6	4
93	Parity-Dependent Rotational Energy Transfer in CN(A2Î, Î½ = 4, j F1Îµ) + N2, O2, and CO2 Collisions. Journal of Physical Chemistry A, 2014, 118, 2007-2017.	2.5	4
94	Stereodynamics of rotational energy transfer in NO(A²Î£⁺) + Kr collisions. Physical Chemistry Chemical Physics, 2022, 24, 6525-6534.	2.8	1
95	The effects of energy-level resonance on collision-induced electronic energy transfer: CD (AÂ2Î” â†” BÂ2Î£â^') coupling. Physical Chemistry Chemical Physics, 2007, 9, 1568-1578.	2.8	0
96	Inelastic and Reactive Scattering Dynamics of Hyperthermal Oxygen Atoms on Ionic Liquid Surfaces: [emim][NTf[sub 2]] and [C[sub 12]mim][NTf[sub 2]]. , 2011, , .		0
97	10.1063/1.5110517.1. , 2019, , .		0
98	10.1063/1.5110517.2. , 2019, , .		0