

Curt Wittig

List of Publications by Year in descending order

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115
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citations

94381

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117
all docs

117
docs citations

117
times ranked

1581
citing authors

#	ARTICLE	IF	CITATIONS
1	The Landau-Zener Formula. Journal of Physical Chemistry B, 2005, 109, 8428-8430.	1.2	191
2	The 266 nm photolysis of ICN: Recoil velocity anisotropies and nascent E,V,R,T excitations for the CN+I(2P3/2) and CN+I(2P1/2) channels. Journal of Chemical Physics, 1985, 82, 3885-3893.	1.2	176
3	Nascent product excitations in unimolecular reactions: The separate statistical ensembles method. Journal of Chemical Physics, 1985, 83, 5581-5588.	1.2	149
4	Orienting reactants using van der Waals precursors: $\text{OCO} + \text{HBr} \rightarrow \text{OCO} + \text{H} + \text{Br}$. Journal of Chemical Physics, 1986, 84, 727-738.	1.2	122
5	Kinetic and internal energy distributions via velocity aligned Doppler spectroscopy: The 193 nm photodissociation of H ₂ S and HBr. Journal of Chemical Physics, 1987, 87, 1062-1069.	1.2	116
6	Probing the NO ₂ → NO+O transition state via time resolved unimolecular decomposition. Journal of Chemical Physics, 1993, 99, 3420-3435.	1.2	100
7	Subpicosecond resolution studies of the H+CO ₂ → CO+OH reaction photoinitiated in CO ₂ ← HI complexes. Journal of Chemical Physics, 1993, 99, 6553-6561.	1.2	98
8	The use of van der Waals forces to orient chemical reactants: The H+CO ₂ reaction. Journal of Chemical Physics, 1985, 83, 444-445.	1.2	95
9	Kinetics of free radicals generated by IR laser photolysis. IV. Intersystem crossings and reactions of C ₂ (X ¹ Σ ⁺ g) and C ₂ (a ³ Σ ⁺ u) in the gaseous phase. Journal of Chemical Physics, 1980, 73, 2280-2286.	1.2	83
10	NCNO → CN+NO: Complete NO(E, V, R) and CN(V, R) nascent population distributions from well characterized monoenergetic unimolecular reactions. Journal of Chemical Physics, 1985, 83, 5573-5580.	1.2	83
11	IR multiple photon dissociation of fluorinated ethanes and ethylenes: HF vibrational energy distributions. Journal of Chemical Physics, 1980, 72, 1694-1700.	1.2	79
12	Infrared absorption spectroscopy of CO ₂ ← HX complexes using the CO ₂ asymmetric stretch chromophore: CO ₂ HF(DF) and CO ₂ HCl(DCl) linear and CO ₂ HBr bent equilibrium geometries. Journal of Chemical Physics, 1990, 92, 943-958.	1.2	78
13	CF ₄ and NOCl molecular lasers operating in the 16 → 14 μm region. Applied Physics Letters, 1977, 30, 420-422.	1.5	75
14	Optically pumped molecular lasers in the 11 → 17 μm region. Journal of Applied Physics, 1978, 49, 61-64.	1.1	73
15	The monoenergetic vibrational predissociation of expansion cooled NCNO: Nascent CN(V,R) distributions at excess energies 0 → 5000 cm ⁻¹ . Journal of Chemical Physics, 1985, 82, 2608-2619.	1.2	72
16	Infrared molecular lasers pumped by electronic vibrational energy transfer from Br(42P1/2): CO ₂ , N ₂ O, HCN, and C ₂ H ₂ . Applied Physics Letters, 1975, 27, 305-307.	1.5	71
17	Propensities toward C ₂ H(A ¹ Σ ⁺) in acetylene photodissociation. Journal of Chemical Physics, 1995, 103, 6815-6818.	1.2	70
18	Photodissociation of HCl at 193.3 nm: Spin → orbit branching ratio. Journal of Chemical Physics, 1997, 107, 1403-1405.	1.2	69

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19	Subpicosecond OH production from photoexcited CO ₂ -HI complexes. Journal of Chemical Physics, 1992, 97, 9486-9489.	1.2	59
20	Photoinitiated H ₂ CO unimolecular decomposition: Accessing H+HCO products via S ₀ and T ₁ pathways. Journal of Chemical Physics, 2000, 112, 2752-2761.	1.2	59
21	Infrared absorption spectroscopy of the CO ₂ -Ar complex in the 2376 cm ⁻¹ combination band region: The intermolecular bend. Journal of Chemical Physics, 1991, 94, 233-238.	1.2	56
22	Velocity-aligned Doppler spectroscopy. Journal of Chemical Physics, 1989, 90, 2692-2702.	1.2	54
23	The density of reactive levels in NO ₂ unimolecular decomposition. Journal of Chemical Physics, 1994, 101, 4809-4818.	1.2	54
24	Infrared photodissociation of fluorinated ethanes and ethylenes: Collisional effects in the multiple photon absorption process. Journal of Chemical Physics, 1978, 69, 4201-4205.	1.2	53
25	Photodissociation of methanol at 193.3 nm: Translational energy release spectra. Journal of Chemical Physics, 1994, 101, 5665-5671.	1.2	50
26	Photoinitiated Reactions in Weakly Bonded Complexes. Advances in Photochemistry, 2007, , 249-363.	0.4	50
27	Photoinitiated H- and D-atom reactions with N ₂ O in the gas phase and in N ₂ O-HI and N ₂ O-DI complexes. Journal of Chemical Physics, 1992, 97, 2536-2547.	1.2	48
28	Optical time of flight spectroscopy: A method for the direct state selective measurement of photofragment recoil energies. Journal of Chemical Physics, 1978, 69, 3854-3857.	1.2	47
29	An experimental study of HF photodissociation: Spin-orbit branching ratio and infrared alignment. Journal of Chemical Physics, 1996, 104, 7027-7035.	1.2	46
30	Electronic-vibrational energy transfer from Br(4p ² P _{1/2}) to HCN, and deactivation of HCN (001). Journal of Chemical Physics, 1976, 65, 1872-1875.	1.2	44
31	Active mode locking of the XeF laser. Applied Physics Letters, 1976, 29, 424-425.	1.5	44
32	The unimolecular reaction of t-BuNO on singlet and triplet surfaces: Spectroscopy, real-time rate measurements, and NO energy distributions. Journal of Chemical Physics, 1986, 85, 5763-5773.	1.2	44
33	Electronic-vibrational pumped CO ₂ laser operating at 4.3, 10.6, and 14.1 μm. Journal of Applied Physics, 1976, 47, 1051-1054.	1.1	40
34	Infrared absorption spectroscopy of gas-phase N ₂ O-HX (X=F, Cl, Br) weakly bonded complexes utilizing the N ₂ O 1/2 ⁺ chromophore. Journal of Chemical Physics, 1990, 93, 183-196.	1.2	40
35	The kinetics of free radicals generated by IR laser photolysis. III. Intersystem crossing between C ₂ (X ¹ g ⁺) and C ₂ (a ³ u) induced by collisions with oxygen. Journal of Chemical Physics, 1980, 73, 829-835.	1.2	39
36	Photoinitiated H+CO ₂ -OH+CO reactions: OH distributions and three-body interactions in CO ₂ H ₂ S complexes. Journal of Chemical Physics, 1988, 88, 2841-2843.	1.2	39

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37	Unimolecular decomposition of NO ₃ : The NO+O ₂ threshold regime. Journal of Chemical Physics, 1996, 105, 6807-6817.	1.2	39
38	The 540-900 nm photodissociation of 300 K NCNO: One- and two-photon processes. Journal of Chemical Physics, 1984, 81, 653-660.	1.2	38
39	Correlated product state distributions in the unimolecular reaction of NCNO. Journal of Chemical Physics, 1989, 90, 209-218.	1.2	37
40	Calculated rotational spectrum of Ar...CO from an ab initio potential energy surface: A very floppy van der Waals molecule. Journal of Chemical Physics, 1994, 101, 1006-1018.	1.2	37
41	Electronic to vibrational energy transfer from Br(42P _{1/2}) to CO ₂ , COS, and CS ₂ . Journal of Chemical Physics, 1977, 67, 4454-4462.	1.2	32
42	The unimolecular reaction of isolated CF ₃ CN: Energy disposal into CN product degrees of freedom. Journal of Chemical Physics, 1982, 76, 997-1006.	1.2	32
43	Unimolecular Reaction Rate Constants of NO ₂ just above D ₀ . Journal of Physical Chemistry A, 1999, 103, 10268-10273.	1.1	31
44	ir photolysis of SeF ₆ : Isotope separation and dissociation enhancement using NH ₃ and CO ₂ lasers. Journal of Chemical Physics, 1978, 69, 4756-4761.	1.2	30
45	CO internal excitation from the reaction: H+CO ₂ ⁺ →CO+OH. Journal of Chemical Physics, 1992, 96, 4378-4386.	1.2	30
46	Infrared spectroscopy of CO ₂ -D(H)Br: Molecular structure and its reliability. Journal of Chemical Physics, 1992, 97, 5392-5402.	1.2	29
47	The production of CN(X ² Σ ⁺) and C ₂ (a ³ Π _u) via the infrared multiple photon dissociation of C ₂ H ₃ CN. Journal of Chemical Physics, 1980, 72, 3789-3795.	1.2	28
48	The rotationally resolved A ¹ Σ ⁺ -X ¹ Σ ⁺ spectrum of expansion cooled NCNO: Vibrational fundamentals, rotational constants, and perturbations. Journal of Chemical Physics, 1984, 81, 4333-4340.	1.2	28
49	An experimental investigation of the effect of rotation on the rate of unimolecular decomposition of NO ₂ . Chemical Physics Letters, 1997, 272, 257-264.	1.2	26
50	Photoinitiated unimolecular decomposition of NO ₂ : Rotational dependence of the dissociation rate. Journal of Chemical Physics, 1999, 111, 9267-9279.	1.2	26
51	Isotopically selective ir photodissociation of SeF ₆ . Applied Physics Letters, 1978, 32, 236-238.	1.5	25
52	Vibrationally resolved translational energy release spectra from the ultraviolet photodissociation of methyl mercaptan. Journal of Chemical Physics, 1993, 99, 6600-6606.	1.2	24
53	Amorphous Solid Water Films: Transport and Guest-Host Interactions with CO ₂ and N ₂ O Dopants. Journal of Physical Chemistry A, 2006, 110, 2097-2105.	1.1	23
54	Rate coefficients for photoinitiated NO ₂ unimolecular decomposition: energy dependence in the threshold regime. Chemical Physics Letters, 2002, 358, 71-76.	1.2	22

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55	Trapping and Release of CO ₂ Guest Molecules by Amorphous Ice. Journal of Physical Chemistry A, 2007, 111, 13365-13370.	1.1	22
56	16 μ m laser oscillation in propyne. Applied Physics Letters, 1981, 39, 6-8.	1.5	21
57	H+ClCN \rightarrow HCl+CN: Product excitations and reaction mechanism at E _{c.m.} = 21.6 kcal/mol. Journal of Chemical Physics, 1988, 89, 1977-1985.	1.2	21
58	Monitoring UF ₆ photodissociation via laser multiphoton ionization. Applied Physics Letters, 1981, 39, 201-203.	1.5	20
59	H ₂ O, NO, and N ₂ O infrared lasers pumped directly and indirectly by electronic-vibrational energy transfer. Journal of Applied Physics, 1977, 48, 230-233.	1.1	19
60	PH ₂ internal energy distribution produced by the 193 nm photodissociation of PH ₃ . Journal of Chemical Physics, 1988, 88, 879-887.	1.2	19
61	Electronic structure of tris(2-phenylpyridine)iridium: electronically excited and ionized states. Molecular Physics, 2012, 110, 1849-1862.	0.8	19
62	Simultaneous one- and two-photon processes in the photodissociation of NCNO using a tunable dye laser. Journal of Chemical Physics, 1983, 79, 2088-2090.	1.2	18
63	Temperature programmed desorption and infrared spectroscopic studies of thin water films on MgO(100). Chemical Physics Letters, 2005, 404, 19-24.	1.2	18
64	Electric-discharge-pumped nitrogen ion laser. Applied Physics Letters, 1976, 29, 580-582.	1.5	17
65	NO($\tilde{X}^2\Pi$) product state distributions in molecule-surface collision-induced dissociation: Direct inelastic scattering of n, i-C ₃ F ₇ NO from MgO(100) at E _{incident} = 7.0 eV. Journal of Chemical Physics, 1991, 94, 2330-2345.	1.2	17
66	Survival of HCl($v=2$) in trapping-desorption from MgO(100). Chemical Physics Letters, 2000, 326, 11-21.	1.2	17
67	Geometric phase and gauge connection in polyatomic molecules. Physical Chemistry Chemical Physics, 2012, 14, 6409.	1.3	16
68	Reply to the "Comment on: "Nascent product excitations in unimolecular reactions: The separate statistical ensembles method". Journal of Chemical Physics, 1986, 85, 1710-1711.	1.2	15
69	Comment on "State-specific unimolecular reaction of NO ₂ just above the dissociation threshold" [J. Chem. Phys. 99, 254 (1993)]. Journal of Chemical Physics, 1994, 100, 4714-4715.	1.2	14
70	Quenching of interconversion tunneling: The free HCl stretch first overtone of (HCl) ₂ . Journal of Chemical Physics, 1998, 108, 9614-9616.	1.2	14
71	Intracluster superelastic scattering via sequential photodissociation in small HI clusters. Journal of Chemical Physics, 2003, 119, 928-938.	1.2	13
72	Vibration quenching of HgBr($\tilde{X}^2\Sigma^+1/2$). Applied Physics Letters, 1981, 38, 731-733.	1.5	12

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73	365 nm photon-induced dynamics of ClNO adsorbed on MgO(100). Journal of Chemical Physics, 1994, 100, 9228-9237.	1.2	12
74	Electronic to vibrational energy transfer, from Br(42P1/2) to H2O. Journal of Chemical Physics, 1978, 68, 2109-2113.	1.2	11
75	Nascent PO($\chi^{\infty}2\hat{1}$) E,V,R,T excitations from collision-free IR laser photolysis: Specificity toward the PO($\chi^{\infty}2\hat{1}1/2$) spin-orbit state. Journal of Chemical Physics, 1985, 82, 1376-1384.	1.2	11
76	Photodissociation of jet-cooled (CH3)3CNO: Temporal separation of radiationless transitions and unimolecular reactions. Journal of Chemical Physics, 1986, 84, 3573-3574.	1.2	11
77	Heavy hydrides: H2Te ultraviolet photochemistry. Journal of Chemical Physics, 2005, 123, 084312.	1.2	11
78	Multiple photon excitation and ionization of NO in and on helium droplets. Journal of Chemical Physics, 2006, 124, 214308.	1.2	11
79	Gas Trapping in Ice and Its Release upon Warming. Astrophysics and Space Science Library, 2013, , 487-499.	1.0	11
80	Temperature dependence of the quenching of Br(4 $\hat{2}P1/2$) by CO2 and HCl with accompanying vibrational excitation. Journal of Chemical Physics, 1978, 68, 3308-3309.	1.2	10
81		1.2	10
82	Laser-controlled dissociation and ionization pathways in electronically excited AsH3. Applied Physics Letters, 1988, 52, 860-862.	1.5	10
83	Reactions of hot deuterium atoms with OCS in the gas phase and in OCS $\hat{4}$ DI complexes. Journal of Chemical Physics, 1993, 99, 6545-6552.	1.2	10
84	On the ultraviolet photodissociation of H2Te. Journal of Chemical Physics, 2004, 121, 9389-9395.	1.2	10
85	Photoexcitation of NO2 in He Droplets above the Gas-Phase Dissociation Threshold. Journal of Physical Chemistry A, 2004, 108, 9841-9846.	1.1	9
86	Formation of He4+ via electron impact of helium droplets. Journal of Chemical Physics, 2018, 148, 044302.	1.2	9
87	Dissociation of benzylamine ions following infrared multiple photon absorption, electron impact	1.2	8
88	IR multiple photon dissociation of C2HCl3: Molecular elimination vs bond fission and efficient	1.2	8
89	The intriguing near-ultraviolet photochemistry of H2Te. Chemical Physics Letters, 2002, 362, 483-490.	1.2	8
90	Multiphoton Ionization of Gaseous Molecules. Advances in Chemical Physics, 2007, , 1-29.	0.3	8

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91	Temperature dependence of electronic to vibrational energy transfer from Br(42P1/2) to 12CO ₂ and 13CO ₂ . Journal of Chemical Physics, 1978, 69, 3729-3734.	1.2	7
92	Picosecond absorption recovery of diphenyl butadiene. IEEE Journal of Quantum Electronics, 1979, 15, 1202-1205.	1.0	6
93	Intramolecular quantum chaos in doped helium nanodroplets. Chemical Physics Letters, 2003, 375, 253-260.	1.2	6
94	Amorphous Solid Water (ASW): Pulsed Laser Ablation of ASW/CO ₂ Thin Films. Journal of Physical Chemistry C, 2012, 116, 563-569.	1.5	6
95	Line-tunable CO ₂ laser operating in the region 2280-2360 cm ⁻¹ pumped by energy transfer from Br(42P1/2). Journal of Applied Physics, 1977, 48, 3665-3668.	1.1	5
96	The collisional de-excitation of Hg(6s ³ P ^o) by HgBr(X ² Σ ⁺), Br(4s ² P), and Br ₂ (X ¹ Σ ^g): Evidence for ion-pair formation in the entrance channel. Journal of Chemical Physics, 1982, 76, 3505-3512.	1.2	5
97	Photon and Electron Spins. Journal of Physical Chemistry A, 2009, 113, 15320-15327.	1.1	5
98	Photoionization of tris(2-phenylpyridine)iridium. Molecular Physics, 2012, 110, 1893-1908.	0.8	5
99	Optically pumped NSF molecular laser. Applied Physics Letters, 1980, 37, 592-594.	1.5	4
100	Molecule-surface dissociative scattering of n-C ₃ F ₇ NO from MgO(100) at hyperthermal energies: Nascent NO (X ² Π). Journal of Chemical Physics, 1989, 90, 3883-3885.	1.2	4
101	Ultrafast OH production in clusters containing N ₂ O and HI. Journal of Chemical Physics, 1997, 107, 9457-9463.	1.2	4
102	Effective Hamiltonian Models and Unimolecular Decomposition. Journal of Physical Chemistry B, 2006, 110, 19850-19860.	1.2	4
103	Electronic Luminescence Resulting from Infrared Multiple Photon Excitation. Advances in Chemical Physics, 2007, , 679-711.	0.3	4
104	Conversion of He(2 ³ S) to He(2 ¹ S) (2 ³ S ₁ to 2 ¹ S ₀) in Liquid Helium. Journal of Physical Chemistry Letters, 2018, 9, 6017-6023.	2.1	4
105	Statistics of Indistinguishable Particles. Journal of Physical Chemistry A, 2009, 113, 7244-7252.	1.1	2
106	Photoinitiated Dynamics in Amorphous Solid Water via Nanoimprint Lithography. Journal of Physical Chemistry A, 2017, 121, 4968-4981.	1.1	2
107	High-energy pulsed CO chemical laser. Journal of Applied Physics, 1975, 46, 5191-5193.	1.1	1
108	Rotationally relaxed, grating tuned laser oscillations in optically pumped C ₂ D ₂ . Applied Physics Letters, 1982, 41, 107-109.	1.5	1

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109	Amorphous Solid Water: Pulsed Heating of Buried N ₂ O ₄ . Journal of Physical Chemistry C, 2015, 119, 14548-14560.	1.5	1
110	Triplet Excitons in Small Helium Clusters. Journal of Physical Chemistry A, 2019, 123, 6113-6122.	1.1	1
111	NaCl surface reaction in chemical-laser devices. IEEE Journal of Quantum Electronics, 1975, 11, 110-111.	1.0	0
112	Stepwise Excitation Processes in Photodissociation and Detection. Israel Journal of Chemistry, 1984, 24, 259-265.	1.0	0
113	Ring opening reaction dynamics in the reaction of hydrogen atoms with ethylene oxide. Journal of Chemical Physics, 1994, 101, 6615-6624.	1.2	0
114	Collision-Induced Dissociation of Highly Excited NO ₂ in the Gas Phase and on MgO (100) Surfaces. ACS Symposium Series, 1997, , 291-303.	0.5	0
115	Tribute to Hanna Reisler. Journal of Physical Chemistry A, 2019, 123, 6381-6383.	1.1	0