

# Hanna Reisler

## List of Publications by Year in descending order

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90  
papers

3,872  
citations

117571

34  
h-index

128225

60  
g-index

91  
all docs

91  
docs citations

91  
times ranked

2131  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reconstruction of Abel-transformable images: The Gaussian basis-set expansion Abel transform method. <i>Review of Scientific Instruments</i> , 2002, 73, 2634-2642.	0.6	827
2	Communication: Determination of the bond dissociation energy ( $D_0$ ) of the water dimer, (H <sub>2</sub> O) <sub>2</sub> , by velocity map imaging. <i>Journal of Chemical Physics</i> , 2011, 134, 211101.	1.2	205
3	The 266 nm photolysis of ICN: Recoil velocity anisotropies and nascent E,V,R,T excitations for the CN+I(2P <sub>3/2</sub> ) and CN+I(2P <sub>1/2</sub> ) channels. <i>Journal of Chemical Physics</i> , 1985, 82, 3885-3893.	1.2	176
4	Nascent product excitations in unimolecular reactions: The separate statistical ensembles method. <i>Journal of Chemical Physics</i> , 1985, 83, 5581-5588.	1.2	149
5	The monoenergetic unimolecular reaction of expansion-cooled NO <sub>2</sub> : NO product state distributions at excess energies $0 \leq E \leq 3000$ cm <sup>-1</sup> . <i>Journal of Chemical Physics</i> , 1993, 99, 1093-1108.	1.2	100
6	Interacting Rydberg and valence states in radicals and molecules: experimental and theoretical studies. <i>International Reviews in Physical Chemistry</i> , 2009, 28, 267-308.	0.9	95
7	Experimental and Theoretical Investigations of Energy Transfer and Hydrogen-Bond Breaking in the Water Dimer. <i>Journal of the American Chemical Society</i> , 2012, 134, 15430-15435.	6.6	89
8	Kinetics of free radicals generated by IR laser photolysis. IV. Intersystem crossings and reactions of C <sub>2</sub> (X <sup>1</sup> $\Sigma^+$ +g) and C <sub>2</sub> (a <sup>3</sup> $\Sigma^+$ ) in the gaseous phase. <i>Journal of Chemical Physics</i> , 1980, 73, 2280-2286.	1.2	83
9	NCNO <sup>+</sup> → CN+NO: Complete NO(E,V,R) and CN(V,R) nascent population distributions from well-characterized monoenergetic unimolecular reactions. <i>Journal of Chemical Physics</i> , 1985, 83, 5573-5580.	1.2	83
10	The monoenergetic vibrational predissociation of expansion cooled NCNO: Nascent CN(V,R) distributions at excess energies $0 \leq E \leq 5000$ cm <sup>-1</sup> . <i>Journal of Chemical Physics</i> , 1985, 82, 2608-2619.	1.2	72
11	The electronic spectrum of NOCl: Photofragment spectroscopy, vector correlations, and ab initio calculations. <i>Journal of Chemical Physics</i> , 1989, 90, 3903-3914.	1.2	70
12	Competitive photodissociation channels in jet-cooled HNCO: Thermochemistry and near-threshold predissociation. <i>Journal of Chemical Physics</i> , 1996, 105, 8111-8116.	1.2	70
13	Unimolecular Reaction of NO <sub>2</sub> : Overlapping Resonances, Fluctuations, and the Transition State. <i>The Journal of Physical Chemistry</i> , 1996, 100, 474-487.	2.9	63
14	EXPERIMENTAL STUDIES OF RESONANCES IN UNIMOLECULAR DECOMPOSITION. <i>Annual Review of Physical Chemistry</i> , 1996, 47, 495-525.	4.8	59
15	Photoinitiated H <sub>2</sub> CO unimolecular decomposition: Accessing H+HCO products via S <sub>0</sub> and T <sub>1</sub> pathways. <i>Journal of Chemical Physics</i> , 2000, 112, 2752-2761.	1.2	59
16	Energetics and Predissociation Dynamics of Small Water, HCl, and Mixed HCl-Water Clusters. <i>Chemical Reviews</i> , 2016, 116, 4913-4936.	23.0	49
17	Fluctuations in the unimolecular decomposition of jet-cooled NO <sub>2</sub> : Implications for overlapping resonances and the transition state. <i>Journal of Chemical Physics</i> , 1994, 100, 4256-4271.	1.2	48
18	Correlated distributions in the photodissociation of HNCO to NH(X <sup>3</sup> $\Sigma^+$ , a <sup>1</sup> $\Pi$ ) + CO(X <sup>1</sup> $\Sigma^+$ ) near the barrier on S <sub>1</sub> . <i>Chemical Physics Letters</i> , 1997, 276, 316-324.	1.2	48

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19	The influence of excited-state vibrations on fragment state distributions: The photodissociation of NOCl on T1 (1 $\pi$ 3 $\sigma$ ). Journal of Chemical Physics, 1990, 92, 4296-4307.	1.2	46
20	Fragment recoil anisotropies in the photoinitiated decomposition of HNCO. Journal of Chemical Physics, 1999, 110, 2059-2068.	1.2	46
21	Experimental and Theoretical Investigations of the Dissociation Energy (D0) and Dynamics of the Water Trimer, (H2O)3. Journal of Physical Chemistry A, 2013, 117, 7207-7216.	1.1	46
22	Experimental and Theoretical Investigations of Energy Transfer and Hydrogen-Bond Breaking in Small Water and HCl Clusters. Accounts of Chemical Research, 2014, 47, 2700-2709.	7.6	46
23	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
24	Double resonance infrared-visible photofragment yield spectroscopy of NO2: Interferences among overlapping quasibound levels. Journal of Chemical Physics, 1994, 101, 5683-5699.	1.2	42
25	Photodissociation dynamics of jet-cooled ClNO on S1 (1 $\pi$ 1 $\sigma$ ): An experimental study. Journal of Chemical Physics, 1990, 93, 1107-1115.	1.2	41
26	Competitive Pathways via Nonadiabatic Transitions in Photodissociation. Accounts of Chemical Research, 2001, 34, 625-632.	7.6	41
27	Experimental probes of dissociative states: Fano profiles in the state-specific photodissociation of FNO. Journal of Chemical Physics, 1992, 97, 5246-5249.	1.2	40
28	The kinetics of free radicals generated by IR laser photolysis. III. Intersystem crossing between C2(X $^1$ g+) and C2(a $^3$ u) induced by collisions with oxygen. Journal of Chemical Physics, 1980, 73, 829-835.	1.2	39
29	Photofragment imaging of HNCO decomposition: Angular anisotropy and correlated distributions. Journal of Chemical Physics, 1997, 106, 7013-7022.	1.2	39
30	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
31	Correlated product state distributions in the unimolecular reaction of NCNO. Journal of Chemical Physics, 1989, 90, 209-218.	1.2	37
32	Final state-selected spectra in unimolecular reactions: A transition-state-based random matrix model for overlapping resonances. Journal of Chemical Physics, 1995, 102, 8874-8886.	1.2	37
33	NO angular distributions in the photodissociation of (NO)2 at 213 nm: Deviations from axial recoil. Journal of Chemical Physics, 2002, 117, 2568-2577.	1.2	36
34	Imaging the State-Specific Vibrational Predissociation of the Ammonia-Water Hydrogen-Bonded Dimer. Journal of Physical Chemistry A, 2009, 113, 10174-10183.	1.1	36
35	Competition between singlet and triplet channels in the photoinitiated decomposition of HNCO. Journal of Chemical Physics, 1997, 106, 7454-7457.	1.2	32
36	Exit channel dynamics in the ultraviolet photodissociation of the NO dimer: (NO)2 $\rightarrow$ NO(A $^2$ +) + NO(X $^2$ ). Journal of Chemical Physics, 2003, 119, 7197-7205.	1.2	31

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37	Photodissociation of HNCO: Three competing pathways. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1997, 101, 469-477.	0.9	29
38	Photodissociative spectroscopy of the hydroxymethyl radical (CH <sub>2</sub> OH) in the 3s and 3p <sub>x</sub> states. Journal of Chemical Physics, 2002, 117, 4820-4824.	1.2	29
39	Overtone-induced dissociation and isomerization dynamics of the hydroxymethyl radical (CH <sub>2</sub> OH and) Tj ETQq1 1 0.784314 rggBT /Overtone	1.2	29
40	The rotationally resolved A <sup>1</sup> Δ <sup>+</sup> ← X <sup>1</sup> Δ <sup>+</sup> spectrum of expansion cooled NCNO: Vibrational fundamentals, rotational constants, and perturbations. Journal of Chemical Physics, 1984, 81, 4333-4340.	1.2	28
41	Predissociation of the Hydroxymethyl Radical in the 3p <sub>z</sub> Rydberg State: A Formaldehyde + Hydrogen Atom Channel. Journal of Physical Chemistry A, 2000, 104, 10288-10292.	1.1	27
42	Competitive C-H and O-D bond fission channels in the UV photodissociation of the deuterated hydroxymethyl radical CH <sub>2</sub> OD. Journal of Chemical Physics, 2004, 120, 6524-6530.	1.2	27
43	Imaging H <sub>2</sub> O Photofragments in the Predissociation of the HCl-H <sub>2</sub> O Hydrogen-Bonded Dimer. Journal of Physical Chemistry A, 2011, 115, 6903-6909.	1.1	27
44	Imaging the State-Specific Vibrational Predissociation of the C <sub>2</sub> H <sub>2</sub> -NH <sub>3</sub> Hydrogen-Bonded Dimer. Journal of Physical Chemistry A, 2007, 111, 7589-7598.	1.1	25
45	Fluctuations in state-selected unimolecular decomposition: Double-resonance infrared visible photofragment yield spectroscopy of NO <sub>2</sub> . Journal of Chemical Physics, 1993, 99, 4860-4863.	1.2	24
46	O-D bond dissociation from the 3s state of deuterated hydroxymethyl radical (CH <sub>2</sub> OD). Journal of Chemical Physics, 2003, 118, 9623-9628.	1.2	23
47	Rotationally Resolved Infrared Spectroscopy of the Hydroxymethyl Radical (CH <sub>2</sub> OH). Journal of Physical Chemistry A, 2004, 108, 7903-7908.	1.1	23
48	Photofragment Spectroscopy and Predissociation Dynamics of Weakly Bound Molecules. Annual Review of Physical Chemistry, 2009, 60, 39-59.	4.8	23
49	Improved sliced velocity map imaging apparatus optimized for H photofragments. Journal of Chemical Physics, 2013, 138, 144201.	1.2	23
50	Imaging bond breaking and vibrational energy transfer in small water containing clusters. Chemical Physics Letters, 2013, 575, 1-11.	1.2	22
51	H+ClCN → HCl+CN: Product excitations and reaction mechanism at E <sub>c.m.</sub> ≈ 21.6 kcal/mol. Journal of Chemical Physics, 1988, 89, 1977-1985.	1.2	21
52	Photoinitiated decomposition of HNCO near the H+NCO threshold: Centrifugal barriers and channel competition. Journal of Chemical Physics, 1999, 110, 10774-10783.	1.2	21
53	Imaging the State-Specific Vibrational Predissociation of the Hydrogen Chloride-Water Hydrogen-Bonded Dimer. Journal of Physical Chemistry A, 2010, 114, 9774-9781.	1.1	21
54	Monitoring UF <sub>6</sub> photodissociation via laser multiphoton ionization. Applied Physics Letters, 1981, 39, 201-203.	1.5	20

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55	Photodissociation of the Hydroxymethyl Radical from the $2^2A''(3p_z)$ State: $H_2CO$ and $HCOH$ Products. Journal of Physical Chemistry A, 2004, 108, 9847-9852.	1.1	20
56	Accessing Multiple Conical Intersections in the $3s$ and $3p_x$ Photodissociation of the Hydroxymethyl Radical. Journal of Physical Chemistry A, 2013, 117, 12049-12059.	1.1	20
57	Experiment and Theory Elucidate the Multichannel Predissociation Dynamics of the HCl Trimer: Breaking Up Is Hard To Do. Journal of Physical Chemistry A, 2014, 118, 8402-8410.	1.1	19
58	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
59	Photodissociation dynamics of the $CH_2Cl$ radical: Ion imaging studies of the $Cl+CH_2$ channel. Journal of Chemical Physics, 2001, 115, 7474-7484.	1.2	18
60	The mechanism of H-bond rupture: the vibrational pre-dissociation of $C_2H_2-HCl$ and $C_2H_2-DCl$ . Physical Chemistry Chemical Physics, 2007, 9, 6241.	1.3	18
61	$NO(X^2\Pi)$ product state distributions in molecule-surface collision-induced dissociation: Direct inelastic scattering of $n-C_3F_7NO$ from $MgO(100)$ at $E_{incident} = 7.0$ eV. Journal of Chemical Physics, 1991, 94, 2330-2345.	1.2	17
62	Trapping-desorption and direct-inelastic scattering of HCl from $MgO(100)$ . Chemical Physics Letters, 1998, 284, 164-170.	1.2	16
63	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
64	State-selective photodissociation dynamics of NOCl: The influence of excited state bending and stretching vibrations. Journal of Chemical Physics, 1988, 89, 6547-6548.	1.2	15
65	Rydberg-valence interactions in $CH_2Cl^+CH_2+Cl$ photodissociation: Dependence of absorption probability on ground state vibrational excitation. Journal of Chemical Physics, 2003, 118, 9233-9240.	1.2	15
66	Spectroscopy and Two-Photon Dissociation of Jet-Cooled Pyruvic Acid. Journal of Physical Chemistry A, 2019, 123, 5906-5917.	1.1	15
67	Effect of Hyperconjugation on Ionization Energies of Hydroxyalkyl Radicals. Journal of Physical Chemistry A, 2008, 112, 9965-9969.	1.1	14
68	The electronic origin and vibrational levels of the first excited singlet state of isocyanic acid (HNCO). Journal of Chemical Physics, 2000, 112, 6678-6688.	1.2	13
69	365 nm photon-induced dynamics of ClNO adsorbed on $MgO(100)$ . Journal of Chemical Physics, 1994, 100, 9228-9237.	1.2	12
70	Reaction Dynamics of $C(3P)$ with Chloroform. Journal of Physical Chemistry A, 1997, 101, 5846-5851.	1.1	12
71	Imaging Studies of Excited and Dissociative States of Hydroxymethylene Produced in the Photodissociation of the Hydroxymethyl Radical. Journal of Physical Chemistry A, 2014, 118, 11916-11925.	1.1	12
72	Photodissociation of jet-cooled $(CH_3)_3CNO$ : Temporal separation of radiationless transitions and unimolecular reactions. Journal of Chemical Physics, 1986, 84, 3573-3574.	1.2	11

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73	Vibrational Predissociation of the HCl <sup>+</sup> (H <sub>2</sub> O) <sub>3</sub> Tetramer. Journal of Physical Chemistry Letters, 2016, 7, 4243-4247.	2.1	10
74	Primary photodissociation mechanisms of pyruvic acid on S <sub>1</sub> : observation of methylhydroxycarbene and its chemical reaction in the gas phase. Physical Chemistry Chemical Physics, 2021, 23, 4107-4119.	1.3	10
75	Generation of excited state potentials from photofragment spectral lines: Fano profiles in FNO. Journal of Chemical Physics, 1995, 103, 4150-4156.	1.2	9
76	Dissociation of benzylamine ions following infrared multiple photon absorption, electron impact	1.2	8
77	Multiphoton Ionization of Gaseous Molecules. Advances in Chemical Physics, 2007, , 1-29.	0.3	8
78	Ab initio calculations of dissociative electronic states of ClCN: Implications to the photodissociation dynamics of the cyanogen halides. Journal of Chemical Physics, 1991, 94, 331-340.	1.2	7
79	Molecular Beams Studies of the Dissociation of Highly Excited NO <sub>2</sub> Induced by Molecular Colliders. The Journal of Physical Chemistry, 1996, 100, 3882-3887.	2.9	7
80	Electronic Structure and Rydberg <sup>+</sup> Core Interactions in Hydroxycarbene and Methylhydroxycarbene. Journal of Physical Chemistry A, 2018, 122, 6176-6182.	1.1	7
81	Molecule <sup>+</sup> surface dissociative scattering of n <sup>+</sup> C <sub>3</sub> F <sub>7</sub> NO from MgO(100) at hyperthermal energies: Nascent NO (X <sup>+</sup> 2 <sup>+</sup> ). Journal of Chemical Physics, 1989, 90, 3883-3885.	1.2	4
82	Electronic Luminescence Resulting from Infrared Multiple Photon Excitation. Advances in Chemical Physics, 2007, , 679-711.	0.3	4
83	Vibrational predissociation of the phenol <sup>+</sup> water dimer: a view from the water. Physical Chemistry Chemical Physics, 2019, 21, 13968-13976.	1.3	4
84	Temperature dependence of the photodissociation of CO <sub>2</sub> from high vibrational levels: 205-230 nm imaging studies of CO(X <sup>+</sup> 1 <sup>+</sup> ) and O(3P, 1D) products. Journal of Chemical Physics, 2017, 147, 013916.	1.2	3
85	Predissociation dynamics of the HCl <sup>+</sup> (H <sub>2</sub> O) <sub>3</sub> tetramer: An experimental and theoretical investigation. Journal of Chemical Physics, 2018, 148, 204303.	1.2	3
86	Looking at the bigger picture: Identifying the photoproducts of pyruvic acid at 193 nm. Journal of Chemical Physics, 2020, 153, 074307.	1.2	3
87	Amorphous Solid Water: Pulsed Heating of Buried N <sub>2</sub> O <sub>4</sub> . Journal of Physical Chemistry C, 2015, 119, 14548-14560.	1.5	1
88	Stepwise Excitation Processes in Photodissociation and Detection. Israel Journal of Chemistry, 1984, 24, 259-265.	1.0	0
89	State-selective photodissociation dynamics of NOCl: Scalar and vector properties. AIP Conference Proceedings, 1989, , .	0.3	0
90	Collision-Induced Dissociation of Highly Excited NO <sub>2</sub> in the Gas Phase and on MgO (100) Surfaces. ACS Symposium Series, 1997, , 291-303.	0.5	0