

Kentarou Kawaguchi

List of Publications by Year in descending order

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citations

81743

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124
all docs

124
docs citations

124
times ranked

2091
citing authors

#	ARTICLE	IF	CITATIONS
1	Diode laser study of the $\hat{1}/2$ band of the methyl radical. Journal of Chemical Physics, 1981, 75, 5256-5264.	1.2	281
2	Laboratory spectroscopy of MgNC - The first radioastronomical identification of Mg-bearing molecule. Astrophysical Journal, 1993, 406, L39.	1.6	230
3	Laboratory detection and astronomical identification of a new free radical, CCS $3\Sigma^-$. Astrophysical Journal, 1987, 317, L115.	1.6	206
4	Detection of a new circumstellar carbon chain molecule, C ₄ Si. Astrophysical Journal, 1989, 345, L83.	1.6	185
5	Laboratory detection of a new carbon-chain molecule C ₃ S and its astronomical identification. Astrophysical Journal, 1987, 317, L119.	1.6	171
6	A 8.8â€“50â€“GHz Complete Spectral Line Survey toward TMC-1 I. Survey Data. Publication of the Astronomical Society of Japan, 2004, 56, 69-173.	1.0	164
7	Mapping observations of sulfur-containing carbon-chain molecules in Taurus Molecular Cloud 1 (TMC-1). Astrophysical Journal, 1992, 394, 539.	1.6	143
8	Diode laser spectroscopy of the $\hat{1}/2$ and $\hat{1}/2$ bands of FHFâˆ“ in 1300 cm ⁻¹ region. Journal of Chemical Physics, 1987, 87, 6838-6841.	1.2	124
9	Infrared diode laser spectroscopy of the NO ₃ $\hat{1}/2$ band. Journal of Chemical Physics, 1985, 82, 2196-2205.	1.2	117
10	Detection of isocyanoacetylene HCCNC in TMC-1. Astrophysical Journal, 1992, 386, L51.	1.6	115
11	Infrared diode laser study of the hydrogen bifluoride anion: FHFâˆ“ and FDFâˆ“. Journal of Chemical Physics, 1986, 84, 2953-2960.	1.2	103
12	Detection and equilibrium molecular structure of a short-lived molecule, HBO, by microwave spectroscopy. Chemical Physics Letters, 1987, 135, 441-445.	1.2	100
13	The $\hat{1}/2$ band of the DO ₂ radical by difference frequency laser and diode laser spectroscopy: The equilibrium structure of the hydroperoxyl radical. Journal of Chemical Physics, 1984, 81, 4826-4831.	1.2	92
14	Diode laser spectroscopy of the BO ₂ radical vibronic interaction between the \tilde{A}^1_2 and $[\tilde{X}]^2_1$ states. Molecular Physics, 1981, 44, 509-528.	0.8	85
15	Infrared diode laser kinetic spectroscopy of the $\hat{1}/2$ band of C ₃ . Journal of Chemical Physics, 1988, 89, 3491-3494.	1.2	85
16	Spin polarization in SO photochemically generated from SO ₂ . Journal of Chemical Physics, 1985, 83, 611-615.	1.2	80
17	Rotational spectrum of the CCS radical studied by laboratory microwave spectroscopy and radio-astronomical observations. Astrophysical Journal, 1990, 361, 318.	1.6	78
18	Magnetic field modulated infrared laser spectroscopy of molecular ions: The $\hat{1}/2$ band of HCO ⁺ . Journal of Chemical Physics, 1985, 82, 1750-1755.	1.2	77

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19	Gas-phase infrared spectroscopy of ClHCl^+ . <i>Journal of Chemical Physics</i> , 1988, 88, 4186-4189.	1.2	76
20	Detection of HNCC^+ in TMC-1. <i>Astrophysical Journal</i> , 1992, 396, L49.	1.6	76
21	Fourier transform infrared spectroscopy of the BH_3 ν_3 band. <i>Journal of Chemical Physics</i> , 1992, 96, 3411-3415.	1.2	73
22	Infrared diode laser spectroscopy of the CF radical. <i>Journal of Molecular Spectroscopy</i> , 1981, 86, 136-142.	0.4	66
23	Far-infrared laser magnetic resonance detection and microwave spectroscopy of the PO radical. <i>Journal of Chemical Physics</i> , 1983, 79, 629-634.	1.2	66
24	Diode laser spectroscopy of C_3 : The $\nu_2 + \nu_3$ and $2\nu_2 + \nu_3$ bands. <i>Journal of Chemical Physics</i> , 1989, 91, 1953-1957.	1.2	66
25	Infrared diode laser and microwave spectroscopy of an unstable molecule: ClBO. <i>Journal of Molecular Spectroscopy</i> , 1982, 93, 381-388.	0.4	64
26	A reinvestigation of the NO_3 1492 cm^{-1} band. <i>Journal of Chemical Physics</i> , 1990, 93, 951-956.	1.2	61
27	Infrared diode laser kinetic spectroscopy of transient molecules produced by excimer laser photolysis: Application to the SO radical. <i>Journal of Molecular Spectroscopy</i> , 1985, 113, 262-268.	0.4	60
28	Diode laser spectroscopy of the CO_2 ν_3 band using magnetic field modulation of the discharge plasma. <i>Journal of Chemical Physics</i> , 1985, 82, 1174-1177.	1.2	58
29	Infrared diode laser spectroscopy of the PO radical. <i>Journal of Molecular Spectroscopy</i> , 1983, 101, 161-166.	0.4	57
30	Detection of a new molecular ion HC_3NH^+ in TMC-1. <i>Astrophysical Journal</i> , 1994, 420, L95.	1.6	57
31	Laboratory detection of C_5S by pulsed-discharge-nozzle Fourier transform microwave spectroscopy. <i>Astrophysical Journal</i> , 1993, 410, L45.	1.6	49
32	Infrared diode laser spectroscopy of the $\nu_2 + \nu_3$ band of CCH. <i>Journal of Molecular Spectroscopy</i> , 1988, 131, 58-65.	0.4	48
33	Far-infrared laser magnetic resonance detection and microwave spectroscopy of the PO_2 radical. <i>Journal of Chemical Physics</i> , 1985, 82, 4893-4902.	1.2	46
34	Infrared diode laser and microwave spectra and molecular structure of an unstable molecule, FBO. <i>Journal of Chemical Physics</i> , 1987, 87, 2006-2009.	1.2	46
35	Pulsed discharge nozzle Fourier transform microwave spectroscopy of the propargyl radical (H_2CCCH). <i>Journal of Chemical Physics</i> , 1997, 107, 2728-2733.	1.2	46
36	Diode laser spectroscopy of the ν_3 and ν_2 fundamental bands of DO_2 . <i>Journal of Chemical Physics</i> , 1985, 83, 5479-5485.	1.2	45

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37	Diode laser spectroscopy of CF ⁺ . Journal of Chemical Physics, 1985, 83, 1437-1439.	1.2	43
38	Observations of Ammonia in External Galaxies I. NGC 253 and M 82. Publication of the Astronomical Society of Japan, 2002, 54, 195-207.	1.0	43
39	The microwave spectrum of the H ₂ D ⁺ ion: The 220 ⁺ →221 transition. Journal of Chemical Physics, 1985, 82, 45-47.	1.2	42
40	Microwave spectroscopy of the NCO radical in the $\hat{v}_{1/2}=02\hat{v}_1$, $\hat{v}_{1/2}=12\hat{v}_1$, and $\hat{v}_{1/2}=22\hat{v}_1$ vibronic states. Molecular Physics, 1985, 55, 341-350.	0.8	42
41	Vibronic interactions in the NO ₃ radical. Journal of Chemical Physics, 1991, 95, 771-775.	1.2	42
42	Pure rotational spectrum of FeCO. Journal of Chemical Physics, 1995, 103, 90-95.	1.2	42
43	Observation of the gas-phase infrared spectrum of BH ₃ . Journal of Chemical Physics, 1987, 87, 2438-2441.	1.2	41
44	Diode laser spectroscopy of the BO ₂ radical: The transition of the $\hat{v}_{1/2}$ fundamental band. Journal of Molecular Spectroscopy, 1986, 116, 450-457.	0.4	40
45	Far-infrared laser magnetic resonance spectra of the PH and PD radicals in X ³ \hat{v}_1 . Journal of Molecular Spectroscopy, 1984, 103, 337-349.	0.4	39
46	The microwave spectrum of the CP radical and related astronomical search. Astrophysical Journal, 1989, 341, 1114.	1.6	39
47	Laser magnetic resonance spectroscopy of SO in the \hat{v}_1 state with a CO ₂ laser as a source. Journal of Chemical Physics, 1978, 69, 1942-1944.	1.2	38
48	The laser magnetic resonance spectrum of the $\hat{v}_{1/2}$ band of NH ₂ . Journal of Molecular Spectroscopy, 1980, 81, 60-72.	0.4	38
49	Detection of HBO by discharge modulated infrared diode laser spectroscopy. Chemical Physics Letters, 1986, 131, 205-208.	1.2	38
50	Fourier-transform infrared spectroscopy of the NO ₃ radical. Chemical Physics Letters, 1991, 180, 436-440.	1.2	38
51	Detection of HBNH by infrared diode laser spectroscopy. Journal of Chemical Physics, 1987, 87, 6331-6333.	1.2	37
52	Observations of HCN, HNC, and NH ₃ in Comet Hale-Bopp. Astrophysical Journal, 1999, 520, 895-900.	1.6	37
53	Near-infrared band of the nitrate radical NO ₃ observed by diode laser spectroscopy. Journal of Chemical Physics, 1997, 107, 2829-2838.	1.2	36
54	HNC/HCN Ratio in Acetonitrile, Formamide, and BrCN Discharge. Journal of Physical Chemistry A, 2011, 115, 1885-1899.	1.1	35

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55	Observations of molecular envelopes of late-type stars: CRL 618, CRL 2688, CRL 3068, and CIT 6. <i>Astrophysical Journal</i> , 1994, 437, 410.	1.6	34
56	Microwave spectroscopy of the NCO radical in the $v_2 = 12$ state. <i>Molecular Physics</i> , 1983, 49, 663-674.	0.8	33
57	Fourier Transform Far-Infrared Spectroscopy of the NH ₂ , NHD, and ND ₂ Radicals. <i>Journal of Molecular Spectroscopy</i> , 1997, 182, 428-438.	0.4	31
58	Laser magnetic resonance spectroscopy of SO in the $X^3\Sigma^-$ state with a CO ₂ laser as a source. <i>Journal of Chemical Physics</i> , 1979, 71, 3338-3345.	1.2	30
59	Infrared diode laser spectroscopy of the BrO radical. <i>Journal of Molecular Spectroscopy</i> , 1984, 104, 372-379.	0.4	30
60	Dye laser excitation spectroscopy of the CCN radical: The $(0,2,0)$ - $(0,2,0)$ bands. <i>Journal of Molecular Spectroscopy</i> , 1984, 106, 320-329.	0.4	30
61	Time-resolved Fourier transform infrared spectroscopy: Application to pulsed discharges. <i>Journal of Molecular Spectroscopy</i> , 2005, 232, 1-13.	0.4	30
62	Magnetic field modulated infrared laser spectroscopy of molecular ions: The \hat{v}_1 band of DCO ⁺ . <i>Journal of Chemical Physics</i> , 1986, 84, 1146-1148.	1.2	28
63	Infrared diode laser spectroscopy of FDF ⁺ . <i>Journal of Molecular Structure</i> , 1995, 352-353, 389-394.	1.8	28
64	Infrared diode laser spectroscopy of the NS radical. <i>Journal of Molecular Spectroscopy</i> , 1980, 84, 68-73.	0.4	27
65	High-resolution infrared spectroscopy of NO ₃ in the 2500-cm ⁻¹ region. <i>Journal of Molecular Spectroscopy</i> , 1992, 153, 167-180.	0.4	27
66	The laboratory spectrum of the PS radical and related astronomical search. <i>Astrophysical Journal</i> , 1988, 329, 511.	1.6	26
67	Far-infrared laser magnetic resonance spectrum of the AsH radical in $X^3\Sigma^-$. <i>Journal of Molecular Spectroscopy</i> , 1984, 106, 423-429.	0.4	25
68	Magnetic-field-modulated infrared laser spectroscopy of the HBF ⁺ \hat{v}_3 band. <i>Chemical Physics Letters</i> , 1986, 123, 1-3.	1.2	24
69	Infrared diode laser spectroscopy of the PS radical. <i>Journal of Molecular Spectroscopy</i> , 1988, 130, 81-85.	0.4	23
70	Laboratory Detection and Rotational Rest Frequencies of N[CLC]a[/CLC]SH. <i>Astrophysical Journal</i> , 1997, 491, L128-L132.	1.6	23
71	Infrared optical double resonance spectroscopy of the NH ₂ radical. <i>Journal of Chemical Physics</i> , 1982, 77, 159-167.	1.2	22
72	Fourier transform infrared spectroscopy of the \hat{v}_3 band of cyclopropenylidene, C ₃ H ₂ . <i>Journal of Chemical Physics</i> , 1991, 95, 3975-3979.	1.2	22

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73	Fourier transform spectrum in the second torsional band region of methylamine. Journal of Molecular Spectroscopy, 1992, 152, 298-306.	0.4	22
74	The Infrared Spectrum of CN in Its Ground Electronic State. Collection of Czechoslovak Chemical Communications, 2004, 69, 73-89.	1.0	22
75	Astronomical Search and Laboratory Spectroscopy of the FeCO Radical. Astrophysical Journal, 1997, 488, 776-780.	1.6	22
76	FTIR Spectroscopy of NO ₃ : Perturbation Analysis of the $\hat{1}\frac{1}{2}3+\hat{1}\frac{1}{2}4$ State. Journal of Physical Chemistry A, 2013, 117, 13732-13742.	1.1	21
77	Infrared diode laser spectroscopy of the PCI radical. Journal of Chemical Physics, 1985, 83, 4945-4948.	1.2	20
78	The microwave spectrum of the H ₂ Cl ⁺ ion. Journal of Chemical Physics, 1988, 88, 2281-2283.	1.2	20
79	Observations of Ammonia in External Galaxies II. Maffei 2. Publication of the Astronomical Society of Japan, 2000, 52, L67-L71.	1.0	20
80	Measurement and Analysis of the $\hat{1}\frac{1}{2}4$ Band of Fluoroform and Its Molecular Constants. Bulletin of the Chemical Society of Japan, 1981, 54, 897-900.	2.0	19
81	The Ortho-to-Para Ratio and the Chemical Properties of C ₃ H ₂ in Dark Cloud Cores. Publication of the Astronomical Society of Japan, 2001, 53, 251-257.	1.0	19
82	A high-precision wavelength meter for tunable diode laser. Journal of Molecular Spectroscopy, 1980, 84, 197-203.	0.4	18
83	Laser-induced fluorescence spectrum of the CCN radical. II. Excitation of $A\hat{2}\hat{1}^i:(010)\hat{1}\hat{2}^i\leftarrow X\hat{2}\hat{1}^r:(010)\hat{1}\hat{2}^r$ vibronic band. Journal of Chemical Physics, 1983, 79, 1094-1095.	1.2	18
84	Infrared diode laser spectroscopy of the SCl radical in the state. Journal of Molecular Spectroscopy, 1986, 116, 108-111.	0.4	18
85	Magnetic field modulated infrared laser spectroscopy of the chloronium ClH ₂ ⁺ ion $\hat{1}\frac{1}{2}2$ band. Journal of Chemical Physics, 1986, 85, 6910-6913.	1.2	18
86	Search for CCH ⁻ , NCO ⁻ , and NCS ⁻ Negative Ions in Molecular Clouds. Publication of the Astronomical Society of Japan, 2005, 57, 325-334.	1.0	18
87	Observations of Cyclopropenylidene (Cyclic-C ₃ H ₂) in the External Galaxies NGC 253 and M 82. Publication of the Astronomical Society of Japan, 2004, 56, 431-438.	1.0	16
88	Diode laser spectroscopy of the $\hat{1}\frac{1}{2}11$ band of ethylene-d ₄ . Journal of Molecular Spectroscopy, 1981, 85, 427-441.	0.4	12
89	A search for absorption of Mg and Ca compounds in molecular clouds towards Galactic continuum sources. Monthly Notices of the Royal Astronomical Society, 1998, 301, 872-880.	1.6	12
90	Time-resolved Fourier transform spectroscopy of pulsed discharge products. Chemical Physics Letters, 2003, 369, 293-298.	1.2	12

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91	Correlation between Nuclear Spin Ratio of Cyclic C ₃ H ₂ and Chemical Evolution in TMC-1 Cores. <i>Astrophysical Journal</i> , 2006, 642, 954-965.	1.6	12
92	Diode laser spectroscopy of the $\hat{1}\frac{1}{2}4$ (HCN bend) band of HCNH ⁺ . <i>Journal of Molecular Spectroscopy</i> , 1986, 117, 408-415.	0.4	11
93	Stark modulation infrared diode laser spectroscopy of the $\hat{1}\frac{1}{2}6 + \hat{1}\frac{1}{2}8$ band of diacetylene. <i>Journal of Molecular Spectroscopy</i> , 1986, 118, 530-539.	0.4	11
94	The microwave spectrum of the HBF ⁺ ion. <i>Journal of Chemical Physics</i> , 1987, 86, 2597-2599.	1.2	11
95	Rotational Spectrum of the MgN ¹³ C Radical. <i>Journal of Molecular Spectroscopy</i> , 2000, 199, 309-310.	0.4	11
96	Time-resolved Fourier transform infrared emission spectroscopy of He ₂ produced by a pulsed discharge. <i>Chemical Physics Letters</i> , 2004, 383, 256-260.	1.2	11
97	Analyses of the Infrared Absorption Bands of ¹⁵ NO ₃ in the 1850~3150 cm ⁻¹ Region. <i>Journal of Physical Chemistry A</i> , 2010, 114, 980-986.	1.1	11
98	Diode laser spectroscopy of the $\hat{1}\frac{1}{2}3$ (CN stretch) band of HCNH ⁺ . <i>Journal of Molecular Spectroscopy</i> , 1988, 127, 275-276.	0.4	9
99	Search for C ₂ ⁺ in Diffuse Clouds. <i>Publication of the Astronomical Society of Japan</i> , 2005, 57, 605-609.	1.0	9
100	High Angular Resolution Observations of the (<i>J</i> , <i>K</i>) = (1, 1), (2, 2), and (3, 3) Transitions of Ammonia in NGC 253. <i>Publication of the Astronomical Society of Japan</i> , 2005, 57, 549-561.	1.0	9
101	On the vibrational assignment in the ground electronic state of NO ₃ . <i>Journal of Molecular Spectroscopy</i> , 2015, 314, 73-78.	0.4	9
102	Infrared spectroscopy of $2\hat{1}\frac{1}{2}4$ and $\hat{1}\frac{1}{2}3 + 2\hat{1}\frac{1}{2}4$ bands of the NO ₃ radical. <i>Journal of Molecular Spectroscopy</i> , 2017, 334, 10-21.	0.4	9
103	Infrared diode laser spectroscopy of triacetylene by the source and the Stark modulation techniques. <i>Journal of Molecular Spectroscopy</i> , 1988, 131, 278-287.	0.4	8
104	Observation of new near infrared emission band systems of small bismuth clusters in solid neon matrix. <i>European Physical Journal D</i> , 2013, 67, 1.	0.6	8
105	Rovibrational states of ClHCl ⁺ isotopologues up to high J: a joint theoretical and spectroscopic investigation. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 6737.	1.3	8
106	Simultaneous Measurements of Superradiance at Multiple Wavelength from Helium Excited States: II. Analysis. <i>Journal of the Physical Society of Japan</i> , 2016, 85, 034301.	0.7	8
107	Spectroscopy of HF and HF-Containing Clusters in Solid Parahydrogen. <i>Journal of Physical Chemistry A</i> , 2011, 115, 14254-14261.	1.1	7
108	High-Resolution Fourier Transform Infrared Absorption Spectroscopy of the $\hat{1}\frac{1}{2}6$ Band of c-C ₃ H ₂ . <i>Journal of Physical Chemistry A</i> , 2011, 115, 8458-8463.	1.1	7

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109	Diode laser spectroscopy of the $\hat{1}/23$ (CN stretch) band of HC ₃ NH ⁺ . Journal of Molecular Spectroscopy, 1990, 144, 451-453.	0.4	6
110	Diffusion of hydrogen fluoride in solid parahydrogen. Journal of Chemical Physics, 2013, 138, 214309.	1.2	6
111	Infrared spectroscopy of the $\hat{1}/21\hat{1}\hat{1}\hat{1}^- + \hat{1}\hat{1}\hat{1}/24$ and $3\hat{1}\hat{1}/24$ bands of the nitrate radical. Journal of Molecular Spectroscopy, 2018, 347, 56-62.	0.4	6
112	Laser magnetic resonance of NH ₂ in $\hat{A}f^2A_1$ and highly excited vibrational states of X $\hat{E}\hat{c}^2B_1$. Journal of the Optical Society of America B: Optical Physics, 1987, 4, 1203.	0.9	5
113	Infrared spectroscopy of the NO ₃ radical from 2000 to 3000 $\hat{c}\hat{m}^{-1}$. Journal of Molecular Spectroscopy, 2018, 344, 6-16.	0.4	5
114	Pressure broadening of transitions in the CH ₃ F $\hat{1}/24$ band using Stark modulated Lamb dips. Chemical Physics Letters, 2015, 619, 144-147.	1.2	4
115	Infrared absorption spectra of SiF ₄ and its clusters in solid parahydrogen. Chemical Physics Letters, 2015, 631-632, 54-58.	1.2	3
116	Coherence decay measurement of $\nu = 2$ vibrons in solid parahydrogen. Journal of Chemical Physics, 2013, 138, 024507.	1.2	2
117	Low-Lying Electronic States in Bismuth Trimer Bi ₃ As Revealed by Laser-Induced NIR Emission Spectroscopy in Solid Ne. Journal of Physical Chemistry A, 2015, 119, 2644-2650.	1.1	2
118	Infrared laser spectroscopy of the $\hat{1}/23-\hat{1}/24$ difference band and detection of the $\hat{1}/23$ band of NO ₃ . Chemical Physics Letters, 2021, 765, 138315.	1.2	2
119	Infrared spectroscopy of difference and combination bands of the NO ₃ radical and anharmonicity analysis. Journal of Molecular Spectroscopy, 2022, 385, 111594.	0.4	2
120	Fourier transform infrared spectroscopy of BH ₃ with the first identification of the $\hat{1}/24$ band. Journal of Molecular Spectroscopy, 2020, 373, 111352.	0.4	1
121	Generation, reaction, and high-resolution spectroscopy of short-lived molecules and free radicals.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 1984, 1984, 1542-1549.	0.1	0
122	Early negative ion studies related to C ₆ H ⁻ and recent ion spectroscopy. , 2015, , .		0
123	Observation and analysis of optical free induction decay in the CH ₃ F $\hat{1}/24$ band. Chemical Physics Letters, 2018, 692, 106-110.	1.2	0