Masaaki Baba

List of Publications by Year
in descending order

79 papers	1,445 citations	331538 21 h-index	377752 34 g-index
79 all docs	79 docs citations	79 times ranked	1032 citing authors

#	Article	IF	Citations
1	Free-bound excitation and predissociation of ytterbium dimers near the S01â^'P11 atomic transition. Physical Review A, 2021, 104, .	1.0	1
2	Ro-vibrationally averaged molecular structure of benzene: Why almost the same bond lengths are observed for the C H and C D bonds?. Journal of Molecular Structure, 2021, 1243, 130537.	1.8	5
3	Large amplitude motion in 9-methylanthracene: High-resolution spectroscopy and Ab Initio theoretical calculation. Chinese Journal of Chemical Physics, 2020, 33, 8-12.	0.6	3
4	Infrared spectrum of hydrogenated corannulene rim-HC20H10 isolated in solid para-hydrogen. Journal of Chemical Physics, 2019, 151, 044304.	1.2	13
5	Actual resuscitation actions after the training of chest compression-only CPR and AED use among new university students. Resuscitation, 2019, 141, 63-68.	1.3	17
6	Coriolis interaction of small and large aromatic hydrocarbons. Journal of Molecular Spectroscopy, 2019, 360, 49-54.	0.4	1
7	Infrared spectra of protonated and hydrogenated corannulene (C₂₀H₁₀) and sumanene (C₂₁H₁₂) using matrix isolation in solid para-hydrogen â€“ implications for the UIR bands. Proceedings of the International Astronomical Union, 2019, 15, 358-360.	0.0	0
8	Electronic and vibrational structure in the S0 and S1 states of corannulene. Journal of Chemical Physics, 2019, 151, 234305.	1.2	4
9	Infrared Spectrum of Protonated Corannulene H⁺C₂₀H₁₀ in Solid para-Hydrogen and its Potential Contribution to Interstellar Unidentified Infrared Bands. ACS Earth and Space Chemistry, 2018, 2, 1001-1010.	1.2	15
10	Electronic and vibrational structures in the S and S1 states of coronene. Journal of Chemical Physics, 2017, 146, 044309.	1.2	7
11	Theoretical Study on Rotational Constants of CH₃O/CD₃O Induced by Geometrical Isotope Effect. Journal of Computer Chemistry Japan, 2016, 15, 199-202.	0.0	2
12	Exact agreement of rotational constants between ultrahigh-resolution spectroscopy and ab initio calculation. AIP Conference Proceedings, 2015, , .	0.3	0
13	Spectroscopic study on deuterated benzenes. I. Microwave spectra and molecular structure in the ground state. Journal of Chemical Physics, 2015, 143, 244302.	1.2	10
14	Spectroscopic study on deuterated benzenes. II. High-resolution laser spectroscopy and rotational structure in the S1 state. Journal of Chemical Physics, 2015, 143, 244303.	1.2	6
15	Spectroscopic study on deuterated benzenes. III. Vibronic structure and dynamics in the S1 state. Journal of Chemical Physics, 2015, 143, 244304.	1.2	4
16	S₁ and S₂ States of Linear and Zigzag Cata-Condensed Hydrocarbons. Journal of Physical Chemistry A, 2013, 117, 13524-13530.	1.1	8
17	Jet spectroscopy of buckybowl: Electronic and vibrational structures in the S and S1 states of triphenylene and sumanene. Journal of Chemical Physics, 2013, 139, 044313.	1.2	10
18	Electronic, vibrational, and rotational structures in the Sâ€^1A1 and S1â€^1A1 states of phenanthrene. Journal of Chemical Physics, 2012, 136, 154301.	1.2	15

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19	Mode-selective internal conversion in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si122.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">S</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msub><mml:msup><mml:m /><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msup><mml:msub><mml:mrow><mml:mi mathvariant="normal">B</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn><mml:mi>u</mml:mi></mml:mrow></mml:msu state of pyrene. Chemical Physics, 2012, 400, 178-184.	0.9	7
20	Mode-selective internal conversion of perylene. Molecular Physics, 2011, 109, 1831-1840.	0.8	14
21	Intersystem Crossing in the ¹nÏ€* and ¹Ï€Ï€* States. Journal of Physical Chemistry A, 2011, 115, 9514-9519.	1.1	118
22	Geometrical structure of benzene and naphthalene: Ultrahigh-resolution laser spectroscopy and abâ€‰initio calculation. Journal of Chemical Physics, 2011, 135, 054305.	1.2	51
23	Ultrahigh-resolution laser spectroscopy of the S1 1B2â†•S0 1A transition of perylene. Journal of Molecular Spectroscopy, 2010, 260, 72-76.	0.4	14
24	Rotationally resolved high-resolution spectrum of the S1â€“S0 transition of jet-cooled thioanisole. Physical Chemistry Chemical Physics, 2010, 12, 13243.	1.3	20
25	Structure and excited-state dynamics of anthracene: Ultrahigh-resolution spectroscopy and theoretical calculation. Journal of Chemical Physics, 2009, 130, 134315.	1.2	47
26	High-resolution spectroscopy of weak and short-lived bands of the S1â€‰B13uâ†•â€‰A1g transition of naphthalene. Journal of Chemical Physics, 2009, 130, 194304.	1.2	24
27	Rotationally resolved ultrahigh-resolution laser spectroscopy of the S2â€‰A11â†•â€‰A11 transition of azulene. Journal of Chemical Physics, 2009, 131, 024303.	1.2	9
28	CH3 Internal Rotation in the S0 and S1 States of 9-Methylanthracene. Journal of Physical Chemistry A, 2009, 113, 2366-2371.	1.1	11
29	Vibrational and rotational structure and excited-state dynamics of pyrene. Journal of Chemical Physics, 2009, 131, 224318.	1.2	57
30	H â• D isotope effect of methyl internal rotation for acetaldehyde in ground state as calculated from a multicomponent molecular orbital method. Journal of Chemical Physics, 2008, 128, 184309.	1.2	14
31	H/D isotope effect in methyl torsional interaction of acetone as calculated by a multicomponent molecular orbital method. Journal of Chemical Physics, 2008, 129, 214116.	1.2	6
32	High Resolution Spectroscopy and Zeeman Effect of the S1â†•S0Transition of Benzene and Naphthalene. Bulletin of the Chemical Society of Japan, 2007, 80, 456-463.	2.0	11
33	Vibronic Structure in the S1â^'S0 Transition of Jet-Cooled Dibenzofuran. Journal of Physical Chemistry A, 2006, 110, 10000-10005.	1.1	10
34	Doppler-Free Two-Photon Excitation Spectroscopy and the Zeeman Effect in the â€œChannel Threeâ€• Region of C6H6. Bulletin of the Chemical Society of Japan, 2006, 79, 75-79.	2.0	11
35	Sub-Doppler high-resolution excitation spectroscopy of the S1â†•S0 transition of dibenzofuran. Journal of Molecular Spectroscopy, 2006, 238, 49-55.	0.4	10
36	Doppler-free two-photon excitation spectroscopy and the Zeeman effects of the S1B1u1(v21=1)â†•S0Ag1(v=0) band of naphthalene-d8. Journal of Chemical Physics, 2005, 122, 144303.	1.2	15

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37	Doppler-Free Two-Photon Excitation Spectroscopy and the Zeeman Effects. Perturbations in the and Bands of the S1 â†•S0 Transition of C6D6. Journal of Physical Chemistry A, 2005, 109, 7127-7133.	1.1	5
38	Sub-Doppler rotationally resolved spectroscopy of the bands of benzene and benzene-d6. Journal of Molecular Spectroscopy, 2004, 227, 180-186.	0.4	29
39	Sub-Doppler High-Resolution Excitation Spectroscopy of Dibenzo-p-dioxin. Journal of Physical Chemistry A, 2004, 108, 1388-1392.	1.1	10
40	Sub-Doppler rotationally resolved spectroscopy of lower vibronic bands of benzene with Zeeman effects. Journal of Chemical Physics, 2004, 120, 6439-6448.	1.2	27
41	Doppler-free two-photon excitation spectroscopy and the Zeeman effect of the 1401 band of the S1â€Š1B2uâ†Š0â€Š1A1g transition of benzene-d6. Journal of Chemical Physics, 2004, 121, 9188-9190.	1.2	6
42	S1 1A2(nÏ€*) and S2 1A1(Ï€Ï€*) States of Jet-Cooled Xanthone. Journal of Physical Chemistry A, 2003, 107, 8851-8855.	1.1	18
43	Zeeman spectra of the Ãƒâ€Š1Auâ†Ìƒâ€Š1Ag transition of trans-glyoxal studied by Doppler-free two-photon fluorescence excitation spectroscopy. Journal of Chemical Physics, 2003, 118, 5422-5430.	1.2	6
44	Doppler-free two-photon absorption spectroscopy and the Zeeman effect of the Aâ€Š[sup 1]B[sub 2u]â†Xâ€Š[sup 1]A[sub 1g]14[sub 0][sup 1]1[sub 0][sup 1] band of benzene. Journal of Chemical Physics, 2002, 116, 162.	1.2	22
45	The Doppler-free two-photon absorption spectroscopy of naphthalene with Zeeman effects. Journal of Chemical Physics, 2002, 116, 9293-9299.	1.2	22
46	High-Resolution Spectroscopy of Jet-Cooled Naphthalene: the 000 and 3301 Bands of the Ãƒ1B1uâ†Ìƒ1Ag Transition. Journal of Molecular Spectroscopy, 2002, 215, 155-159.	0.4	16
47	Perturbation in the Vâ€‰1B2 state of CS2 and the effects of an applied magnetic field. Journal of Chemical Physics, 2000, 113, 107-119.	1.2	9
48	Doppler-free UV-visible opticalâ€“optical double resonance polarization spectroscopy of the 2â€Š1Î£u+ double minimum state and the Câ€Š1Îu state of Li2. Journal of Chemical Physics, 2000, 113, 6227-6234.	1.2	23
49	Variation of the linewidth of the A0+â†Xâ€Š1Î£+ transition of NaI. Journal of Chemical Physics, 1999, 111, 9574-9576.	1.2	6
50	Ultrahigh-resolution spectroscopy of the A1Auâ†X1Ag transition of trans-glyoxal. Journal of Chemical Physics, 1998, 109, 4798-4806.	1.2	18
51	Doppler-free optical-optical double resonance polarization spectroscopy of the Cs2 (2)3Î0+u, (2)3Î1u, Câ€‰1Îu, and 1u[(2)3Î£u++(2)3Îu] states. Journal of Chemical Physics, 1998, 109, 3393-3400.	1.2	9
52	High resolution laser spectroscopy of the Cs2 Câ€‰1Îu state: Perturbation and predissociation. Journal of Chemical Physics, 1997, 106, 4869-4876.	1.2	12
53	Doppler-free two-photon absorption spectroscopy of the A1Auâ†X1Ag transition of trans-glyoxal. Journal of Chemical Physics, 1997, 106, 8392-8400.	1.2	23
54	Perturbation and Predissociation near the Dissociation Limit of the B1Î State of23Na39K. Journal of Physical Chemistry A, 1997, 101, 422-428.	1.1	11

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55	Opticalâ€“optical double resonance polarization spectroscopy of the Bâ€‰1Î state of 39K85Rb. Journal of Chemical Physics, 1996, 105, 3458-3465.	1.2	40
56	Highâ€resolution laser spectroscopy of the X1Î£+ and (1)3Î£+ states of 23Na85Rb molecule. Journal of Chemical Physics, 1996, 105, 1341-1347.	1.2	39
57	Subâ€Doppler Zeeman spectroscopy of pyrazine: S1â€‰1B3uâ€“S0â€‰1Ag 000 band. Journal of Chemical Physics, 1996, 105, 5745-5752.	1.2	5
58	Radiative and Nonradiative Processes in the Excited States of Jet-Cooled Oxalyl Chloride. The Journal of Physical Chemistry, 1996, 100, 3354-3358.	2.9	5
59	Intramolecular Radiationless Transitions in Substituted Benzaldehydes. The Journal of Physical Chemistry, 1994, 98, 11265-11268.	2.9	20
60	Hyperfine structures of the triplet states of 23Na85Rb. Journal of Chemical Physics, 1993, 99, 5036-5044.	1.2	12
61	High resolution spectroscopy of the Cs2 Dâ€‰1Î£u+â€“Xâ€‰1Î£g+ transition and hyperfine structure. Journal of Chemical Physics, 1993, 98, 2670-2674.	1.2	9
62	Line shape of transition to the predissociative level Cs2 Dâ€‰1Î£u+(v,â€‰J) and the effects of magnetic field. Journal of Chemical Physics, 1993, 98, 6684-6689.	1.2	10
63	Dopplerâ€free Zeeman spectroscopy of the NO2 593.3 nm band. Journal of Chemical Physics, 1992, 97, 4569-4570.	1.2	1
64	Effects of magnetic field on the perturbation between the Bâ€‰1Î and câ€‰3Î£+ states of NaK. Journal of Chemical Physics, 1992, 96, 955-960.	1.2	9
65	Hyperfine structure of the NaK câ€‰3Î£+ state and the effects of perturbation. Journal of Chemical Physics, 1992, 96, 6423-6432.	1.2	42
66	High resolution laser spectroscopy of the Bâ€‰1Îâ€“Xâ€‰1Î£+ transition of 23Na85Rb. Journal of Chemical Physics, 1991, 95, 6229-6237.	1.2	46
67	High resolution laser spectroscopy up to the dissociation limit of the NaK Bâ€‰1Î state, and predissociation near the dissociation limit. Journal of Chemical Physics, 1991, 94, 7713-7720.	1.2	28
68	Dopplerâ€free high resolution laser spectroscopy of the Cs2 Dâ€‰1Î£+u state and the predissociation. Journal of Chemical Physics, 1991, 94, 2600-2607.	1.2	33
69	Perturbation and the effects on the transition intensity and the line shape studied on alkali metal diatomic molecules. Acta Physica Hungarica, 1990, 67, 73-89.	0.1	0
70	Predissociation of the Cs2 Câ€‰1Îu state. Journal of Chemical Physics, 1990, 93, 4637-4641.	1.2	15
71	High resolution laser spectroscopy of the Bâ€‰1Îâ^'Xâ€‰1â^'+ transition of 23Na39K, and the perturbation between the Bâ€‰1Î and câ€‰3â^'+ states. Journal of Chemical Physics, 1990, 93, 2228-2237.	1.2	36
72	Hyperfine and Zeeman quantum beats of the Na(3â€‰2P3/2â€“3â€‰2S1/2) transition, and the decay of coherence. Journal of Chemical Physics, 1989, 90, 5238-5242.	1.2	0

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73	Hyperfine structure of the Na2â€‰bâ€‰3Îu state. Journal of Chemical Physics, 1989, 91, 5124-5125.	1.2	18
74	The Magnetic Predissociation of theB3Î0+uState of the Iodine Molecule. Bulletin of the Chemical Society of Japan, 1989, 62, 17-22.	2.0	5
75	A study of the Dâ€‰1Î£+uâ€“Xâ€‰1Î£+g band system of Cs2. Journal of Chemical Physics, 1988, 89, 1209-1214.	1.2	13
76	Dopplerâ€free spectrum of the Bâ€‰1Îâ€“Xâ€‰1Î£+ transition of NaK, and the perturbation and hyperfine splitting. Journal of Chemical Physics, 1988, 89, 7049-7055.	1.2	20
77	Perturbations of the Aâ€‰1Î£+u and bâ€‰3Îu states of Na2 and the effects on the transition intensity and the line splitting. Journal of Chemical Physics, 1988, 89, 653-659.	1.2	43
78	Ab initio study of the methyl internal rotation of acetaldehyde in the S1â€‰(nâ€‰,Ï€*) state. Journal of Chemical Physics, 1985, 83, 3514-3519.	1.2	30
79	The S1(n,â€‰Ï€*) states of acetaldehyde and acetone in supersonic nozzle beam: Methyl internal rotation and C=O outâ€ofâ€plane wagging. Journal of Chemical Physics, 1985, 82, 3938-3947.	1.2	124