

Tomonari Wakabayashi

List of Publications by Year in descending order

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118
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2259
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectroscopic study on polyynes and their composite materials. Tanso, 2022, 2022, 18-29.	0.1	0
2	Phosphorescence of Hydrogen-Capped Linear Polyynes C ₈ H ₂ , C ₁₀ H ₂ and C ₁₂ H ₂ in Solid Hexane Matrices at 20 K. Photochem, 2022, 2, 181-201.	2.2	1
3	Phosphorescence excitation mapping and vibrational spectroscopy of HC ₉ N and HC ₁₁ N cyanopolyynes in organic solvents. Journal of Molecular Structure, 2020, 1214, 128201.	3.6	7
4	Determining the Coordination Number of Li ⁺ and Glyme or Poly(ethylene glycol) in Solution Using Attenuated Total Reflectance-Far Ultraviolet Spectroscopy. Analytical Sciences, 2020, 36, 91-93.	1.6	8
5	Bi ₂ Ne: Weakly bound cluster of diatomic bismuth with neon. Low Temperature Physics, 2019, 45, 689-696.	0.6	0
6	Changes in the Electronic Transitions of Polyethylene Glycol upon the Formation of a Coordinate Bond with Li ⁺ , Studied by ATR Far-Ultraviolet Spectroscopy. Journal of Physical Chemistry A, 2019, 123, 10746-10756.	2.5	15
7	Efficient polyyne formation by ns and fs laser-induced breakdown in ethylene and acetylene gas flow. Carbon, 2019, 152, 372-375.	10.3	6
8	Matrix isolation spectroscopy and spectral simulations of isotopically substituted C ₆₀ molecules. Journal of Chemical Physics, 2019, 151, 234301.	3.0	10
9	Theoretical study of lanthanide-based <i>in vivo</i> luminescent probes for detecting hydrogen peroxide. Journal of Computational Chemistry, 2019, 40, 500-506.	3.3	6
10	Elucidation of the electronic states in polyethylene glycol by attenuated Total reflectance spectroscopy in the far-ultraviolet region. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 197, 170-175.	3.9	9
11	Computational study on the luminescence quantum yields of terbium complexes with 2,2'-bipyridine derivative ligands. Physical Chemistry Chemical Physics, 2018, 20, 3328-3333.	2.8	19
12	Generation and reactions of thiirenium ions by the Cation Pool method. Arkivoc, 2018, 2018, 97-113.	0.5	3
13	Polyyne formation by ns and fs laser induced breakdown in hydrocarbon gas flow. Carbon, 2017, 115, 169-174.	10.3	25
14	Synthesis of hydrogen- and methyl-capped long-chain polyynes by intense ultrashort laser pulse irradiation of toluene. Carbon, 2017, 118, 680-685.	10.3	23
15	Cleavage of a P=P Double Bond Mediated by N-Heterocyclic Carbenes. Angewandte Chemie - International Edition, 2017, 56, 5765-5769.	13.8	29
16	Simultaneous Measurements of Superradiance at Multiple Wavelength from Helium Excited States: II. Analysis. Journal of the Physical Society of Japan, 2016, 85, 034301.	1.6	8
17	Generation of polyyne and methylpolyyne molecules from toluene by intense femtosecond laser pulse irradiation. Journal of Physics: Conference Series, 2015, 635, 112125.	0.4	1
18	Polyyne formation by graphite laser ablation in argon and propane mixed gases. Carbon, 2015, 94, 124-128.	10.3	19

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19	Anticorrelated formation of fullerenes and polyynes upon laser ablation of graphite under various concentrations of hydrogen sources. <i>Chemical Physics Letters</i> , 2015, 642, 35-38.	2.6	3
20	Low-Lying Electronic States in Bismuth Trimer Bi_3 As Revealed by Laser-Induced NIR Emission Spectroscopy in Solid Ne. <i>Journal of Physical Chemistry A</i> , 2015, 119, 2644-2650.	2.5	2
21	Low temperature in situ Raman spectroscopy of an electro-generated arylbis(arylthio)sulfonium ion. <i>Chemical Communications</i> , 2015, 51, 13106-13109.	4.1	6
22	Production of Ba Metastable State via Superradiance. <i>Journal of the Physical Society of Japan</i> , 2014, 83, 044301.	1.6	4
23	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.	1.3	8
24	Binding Motif of Terminal Alkynes on Gold Clusters. <i>Journal of the American Chemical Society</i> , 2013, 135, 9450-9457.	13.7	179
25	Coherence decay measurement of $\nu = 2$ vibrons in solid parahydrogen. <i>Journal of Chemical Physics</i> , 2013, 138, 024507.	3.0	2
26	Vibronic bands in the HOMO-LUMO excitation of linear polyyne molecules. <i>Journal of Physics: Conference Series</i> , 2013, 428, 012004.	0.4	6
27	Neutrino spectroscopy with atoms and molecules. <i>Progress of Theoretical and Experimental Physics</i> , 2012, 2012, .	6.6	37
28	Selective synthesis of organogold magic clusters $\text{Au}_{54}(\text{C}\equiv\text{CPh})_{26}$. <i>Chemical Communications</i> , 2012, 48, 6085.	4.1	91
29	Spectroscopic characterization of a series of polyyne-iodine molecular complexes $\text{H}(\text{CC})_n\text{H}(\text{I}_6)$ of $n=5\text{--}9$. <i>Chemical Physics Letters</i> , 2012, 541, 54-59.	2.6	11
30	Photoinduced reaction of methylpolyynes $\text{H}(\text{C}\equiv\text{C})_n\text{CH}_3$ ($n=5\text{--}7$) and polyyne $\text{H}(\text{C}\equiv\text{C})_5\text{H}$ with I_2 molecules. <i>European Physical Journal D</i> , 2012, 66, 1.	1.3	5
31	Isotope scrambling in the formation of cyanopolyynes by laser ablation of carbon particles in liquid acetonitrile. <i>Carbon</i> , 2012, 50, 47-56.	10.3	27
32	Photoinduced Reaction of Hydrogen-End-Capped Polyynes with Iodine Molecules. <i>Journal of Physical Chemistry B</i> , 2011, 115, 8439-8445.	2.6	11
33	Surface-enhanced Raman scattering of size-selected polyynes (C_8H_2) adsorbed on silver colloidal nanoparticles. <i>Chemical Physics Letters</i> , 2011, 503, 118-123.	2.6	13
34	Synthesis of polyyne molecules from hexane by irradiation of intense femtosecond laser pulses. <i>Carbon</i> , 2010, 48, 1673-1676.	10.3	39
35	FULLERENE C60: A POSSIBLE MOLECULAR QUANTUM COMPUTER. , 2009, , .		2
36	Raman spectral features of longer polyynes $\text{HC}_2\text{ nH}$ ($n=4\text{--}8$) in SWNTs. <i>European Physical Journal D</i> , 2009, 52, 79-82.	1.3	18

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37	Interaction of Carbon Linear Chains with Silver Island Film Studied by Surface-Enhanced Raman Scattering. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2009, 4, 220-223.	0.5	4
38	Influence of Cumulenic Chains on the Vibrational and Electronic Properties of sp^2 Amorphous Carbon. <i>Physical Review Letters</i> , 2007, 98, 216103.	7.8	117
39	Raman Spectroscopy of Size-Selected Linear Polyynes $C_{2n}H_2$ ($n=4\sim 6$) Encapsulated in Single-Wall Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2007, 111, 5178-5183.	3.1	83
40	Resonance Raman spectra of polyyne molecules $C_{10}H_2$ and $C_{12}H_2$ in solution. <i>Chemical Physics Letters</i> , 2007, 433, 296-300.	2.6	48
41	Laser induced emission spectra of polyyne molecules $C_{2n}H_2$ ($n=5\sim 8$). <i>Chemical Physics Letters</i> , 2007, 446, 65-70.	2.6	25
42	Raman and surface-enhanced Raman scattering of a series of size-separated polyynes. <i>Carbon</i> , 2006, 44, 3168-3176.	10.3	133
43	Single-wall carbon nanotubes encaging linear chain $C_{10}H_2$ polyyne molecules inside. <i>Chemical Physics Letters</i> , 2006, 428, 356-360.	2.6	132
44	Approaches to Size-selective Formation of Fullerenes by Cyclization of Highly Reactive Polyyne Chains. <i>Chemistry Letters</i> , 2005, 34, 1574-1579.	1.3	7
45	Carbon-Rich Compounds: Acetylene-Based Carbon Allotropes. , 2005, , 387-426.		12
46	Size-Selective Formation of C_{78} Fullerene from a Three-Dimensional Polyyne Precursor. <i>Chemistry - A European Journal</i> , 2005, 11, 1603-1609.	3.3	19
47	Generation and Characterization of Highly Strained Dibenzo-tetrakisdehydro[12]- and Dibenzo-pentakisdehydro[14]annulenes. <i>Journal of Organic Chemistry</i> , 2005, 70, 1853-1864.	3.2	21
48	Carbon Chain Molecules in Cryogenic Matrices. , 2005, , 1-14.		2
49	Time-of-Flight Mass Spectroscopy of Carbon Clusters and Hydrocarbons Produced by Laser Ablation of Graphite under H_2 and He Buffer Gas-Formation and Stability of C_{10} and $C_{2n}H_2$ ($n=2-5$)-. <i>Journal of the Mass Spectrometry Society of Japan</i> , 2005, 53, 203-210.	0.1	1
50	Polyynes ($C_{2n}H_2$, $n=2\sim 5$) and Other Products from Laser-Ablated Graphite. , 2005, , 181-196.		0
51	Cyclic Polyynes. , 2005, , 99-126.		0
52	UV and IR absorption spectra of C_3 embedded in solid para-hydrogen. <i>Chemical Physics</i> , 2004, 300, 69-77.	1.9	15
53	A mass spectroscopic study of laser vaporized graphite in H_2 and D_2 gases: the stability of $C_{2n}H_2$ ($n=2\sim 5$) and C_{10} . <i>Chemical Physics Letters</i> , 2004, 386, 279-285.	2.6	15
54	Coagulation of linear carbon molecules into nanoparticles: a molecular dynamics study. <i>Chemical Physics Letters</i> , 2004, 388, 436-440.	2.6	17

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55	Flashing Carbon on Cold Surfaces. <i>Journal of Physical Chemistry B</i> , 2004, 108, 3686-3690.	2.6	44
56	Generation of infrared radiation by stimulated Raman scattering in para-hydrogen crystal at 5 K. <i>Optics Letters</i> , 2003, 28, 37.	3.3	5
57	Generation and Characterization of Highly Strained Dibenzotetrakisdehydro[12]annulene. <i>Journal of the American Chemical Society</i> , 2003, 125, 5614-5615.	13.7	29
58	Preferential formation of neutral C ₁₀ upon laser vaporized graphite in He gas as studied by photoionization mass spectroscopy with 10.5 eV photons. <i>Journal of Chemical Physics</i> , 2003, 118, 5390-5394.	3.0	10
59	Laser induced fluorescence spectra of the D ⁺ and C ⁺ systems of C ₂ in solid Ne. <i>Journal of Chemical Physics</i> , 2002, 116, 5996-6001.	3.0	10
60	[12.12]Paracyclophanedodecaynes C ₃₆ H ₈ and C ₃₆ Cl ₈ : The Smallest Paracyclophynes and Their Transformation into the Carbon Cluster Ion C ₃₆ ⁺ . <i>Angewandte Chemie - International Edition</i> , 2002, 41, 16-16.	13.8	0
61	Infrared Spectroscopic Study on Photolysis of Ethyl Iodide in Solid Parahydrogen: A Perdeuterated Iodide System. <i>Journal of Physical Chemistry A</i> , 2001, 105, 3077-3086.	2.5	8
62	Laser induced dissociation of linear C _[sub 6] and reorientation of trapping sites in solid neon. <i>AIP Conference Proceedings</i> , 2001, , .	0.4	3
63	[12.12]Paracyclophanedodecaynes C ₃₆ H ₈ and C ₃₆ Cl ₈ : The Smallest Paracyclophynes and Their Transformation into the Carbon Cluster Ion C ₃₆ ⁺ This work was supported in part by Grants-in-Aid for Scientific Research from the Ministry of Education, Science, Sports and Culture of Japan. Y.T. is grateful to Shin-Etsu Chemical Co. for the generous gift of an organosilicon reagent.. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 4072.	13.8	33
64	Polyyne cyclization to form carbon cages: [16.16.16](1,3,5)cyclophanetetracosayne derivatives C ₆₀ H ₆ and C ₆₀ Cl ₆ as precursors to C ₆₀ fullerene. <i>Tetrahedron</i> , 2001, 57, 3629-3636.	1.9	53
65	High-Resolution Infrared Absorption Spectroscopy of C ₆₀ Molecules and Clusters in Parahydrogen Solids. <i>Journal of Physical Chemistry A</i> , 2000, 104, 3733-3742.	2.5	40
66	[2 + 2] Cycloreversion of [4.3.2]Propella-1,3,11-trienes: An Approach to Cyclo[n]carbons from Propellane-Annulated Dehydro[n]annulenes. <i>Journal of the American Chemical Society</i> , 2000, 122, 1762-1775.	13.7	67
67	Infrared spectroscopic study of rovibrational states of perdeuterated methane (CD ₄) trapped in parahydrogen crystal. <i>Journal of Chemical Physics</i> , 1999, 110, 5728-5733.	3.0	29
68	High resolution infrared absorption spectra of methane molecules isolated in solid parahydrogen matrices. <i>Journal of Chemical Physics</i> , 1999, 111, 4191-4198.	3.0	101
69	Mass spectroscopic studies of laser ablated carbon clusters as studied by photoionization with 10.5 eV photons under high vacuum. <i>Journal of Chemical Physics</i> , 1999, 111, 6260-6263.	3.0	21
70	HPLC analysis for fullerenes up to C ₉₆ and the use of the laser furnace technique to study fullerene formation process. <i>European Physical Journal D</i> , 1999, 9, 355-358.	1.3	13
71	Pyridine analogue of macrocyclic polyynes C ₅₈ H ₄ N ₂ as a precursor to diazafullerene C ₅₈ N ₂ . <i>Chemical Communications</i> , 1999, , 1625-1626.	4.1	26
72	Structure and Stability of Large Carbon Clusters. <i>Springer Series in Cluster Physics</i> , 1999, , 379-388.	0.3	2

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73	Tunneling chemical reactions in solid parahydrogen: A case of $CD_3+H_2 \rightarrow CD_3H+H$ at 5 K. Journal of Chemical Physics, 1998, 108, 7334-7338.	3.0	36
74	[16.16.16](1,3,5)Cyclophanetetraicosayne ($C_{60}H_6$): A Precursor to C_{60} Fullerene. Journal of the American Chemical Society, 1998, 120, 4544-4545.	13.7	88
75	Photoinduced reactions of methyl radical in solid parahydrogen. Journal of Chemical Physics, 1998, 109, 6346-6350.	3.0	25
76	Preferential formation of C_{10}^+ upon tandem irradiation of graphite with IR and UV laser pulses. Journal of Chemical Physics, 1997, 107, 1152-1155.	3.0	14
77	High-resolution laser spectroscopy of methane clusters trapped in solid parahydrogen. Journal of Chemical Physics, 1997, 107, 7717-7720.	3.0	29
78	Photoelectron spectroscopy of C_n^+ produced from laser ablated dehydroannulene derivatives having carbon ring size of $n=12, 16, 18, 20,$ and 24 . Journal of Chemical Physics, 1997, 107, 4783-4787.	3.0	43
79	Infrared spectroscopic study of rovibrational states of methane trapped in parahydrogen crystal. Journal of Chemical Physics, 1997, 107, 7707-7716.	3.0	110
80	Infrared Spectroscopic Studies on Photolysis of Ethyl Iodide in Solid Parahydrogen. Journal of Physical Chemistry A, 1997, 101, 522-527.	2.5	45
81	Photoionization/fragmentation of endohedral fullerenes. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1997, 40, 410-413.	1.0	13
82	Towards the selective formation of specific isomers of fullerenes: T - and p -dependence in the yield of various isomers of fullerenes C_{60} - C_{84} . Zeitschrift für Physik D-Atoms Molecules and Clusters, 1997, 40, 414-417.	1.0	44
83	Photoionization/fragmentation of endohedral fullerenes. , 1997, , 410-413.		0
84	A New Entry into Cyclo[n]carbons: [2 + 2] Cycloreversion of Propellane-Annulated Dehydroannulenes. Journal of the American Chemical Society, 1996, 118, 2758-2759.	13.7	56
85	Tunable-narrow-linewidth continuous-wave mid-infrared light generation by difference-frequency mixing. Journal of the Optical Society of America B: Optical Physics, 1996, 13, 1706.	2.1	10
86	High resolution laser spectroscopy of solid parahydrogen at liquid helium temperatures. European Physical Journal D, 1996, 46, 529-530.	0.4	1
87	Bildung von Cyclo[n]kohlenstoffen mit n Kohlenstoffatomen (C_{12}), Tj ETQq1 1 0.784314 rgBT /Overlock Dehydroannulenen. Angewandte Chemie, 1996, 108, 1924-1926.	2.0	10
88	Generation of Cyclocarbons with 4n Carbon Atoms ($C_{12}, C_{16},$ and C_{20}) by [2+ 2] Cycloreversion of Propellane-Annulated Dehydroannulenes. Angewandte Chemie International Edition in English, 1996, 35, 1800-1802.	4.4	57
89	Structures of Carbon Soot Prepared by Laser Ablation. The Journal of Physical Chemistry, 1996, 100, 5839-5843.	2.9	91
90	C2-LOSS FRAGMENTATION OF HIGHER FULLERENES AND METALLOFULLERENES. Surface Review and Letters, 1996, 03, 793-798.	1.1	22

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91	Infrared Spectroscopic Studies of Carbon Clusters Trapped in Solid Parahydrogen. The Journal of Physical Chemistry, 1996, 100, 12135-12137.	2.9	26
92	Trends in Large Fullerenes: Are They Balls or Tubes. , 1996, , 139-147.		37
93	Higher Fullerenes: Structure and Properties. Materials Research Society Symposia Proceedings, 1994, 359, 3.	0.1	40
94	Pressure-Controlled Selective Isomer Formation of Fullerene C78. The Journal of Physical Chemistry, 1994, 98, 3090-3091.	2.9	56
95	Stability of Metallofullerene LaC_{82} on UV Light Irradiation. Japanese Journal of Applied Physics, 1994, 33, L1265-L1267.	1.5	10
96	ESR detection of non-equivalent scandium trimer. Chemical Physics Letters, 1994, 229, 512-516.	2.6	17
97	Formation and stability of small metallocarbon clusters: what is the specificity for the formation of stable metallofullerenes?. International Journal of Mass Spectrometry and Ion Processes, 1994, 138, 297-306.	1.8	29
98	A selective isomer growth of fullerenes. Chemical Physics Letters, 1993, 201, 470-474.	2.6	44
99	Isolation and characterization of the metallofullerene LaC_{82} . Chemical Physics Letters, 1993, 216, 67-71.	2.6	226
100	A hypothetical growth mechanism of carbon five- and six-membered ring networks. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1993, 19, 14-17.	3.5	14
101	Ring-stacking consideration on higher fullerene growth. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1993, 26, 258-260.	1.0	17
102	Two dimensional detection of size selected and focused neutral carbon clusters using image intensified charge coupled device (ICCD) system. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1993, 26, 317-319.	1.0	0
103	Stability, structures and a hypothetical growth mechanism of carbon 5/6 network. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1993, 26, 69-73.	1.0	4
104	Higher fullerenes; separation and molecular structures. Synthetic Metals, 1993, 56, 3208-3213.	3.9	13
105	NMR characterization of isomers of C78, C82 and C84 fullerenes. Nature, 1992, 357, 142-145.	27.8	519
106	A model for the C60 and C70 growth mechanism. Chemical Physics Letters, 1992, 190, 465-468.	2.6	167
107	Isolation and identification of fullerene family: C76, C78, C82, C84, C90 and C96. Chemical Physics Letters, 1992, 188, 177-180.	2.6	250
108	Size selection and focusing of neutral carbon clusters. Chemical Physics Letters, 1991, 182, 12-16.	2.6	7