

# Hirohiko Kono

## List of Publications by Year in descending order

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42  
papers

846  
citations

516710

16  
h-index

477307

29  
g-index

43  
all docs

43  
docs citations

43  
times ranked

844  
citing authors

#	ARTICLE	IF	CITATIONS
1	Adiabatic and diabatic responses of H <sub>2</sub> <sup>+</sup> to an intense femtosecond laser pulse: Dynamics of the electronic and nuclear wave packet. <i>Journal of Chemical Physics</i> , 1999, 110, 11152-11165.	3.0	131
2	Description of Molecular Dynamics in Intense Laser Fields by the Time-Dependent Adiabatic State Approach: A Application to Simultaneous Two-Bond Dissociation of CO <sub>2</sub> and Its Control. <i>Journal of the American Chemical Society</i> , 2003, 125, 8019-8031.	13.7	82
3	Intense-laser-field-enhanced ionization of two-electron molecules: Role of ionic states as doorway states. <i>Physical Review A</i> , 2000, 62, .	2.5	74
4	Exact two-electron wave packet dynamics of H <sub>2</sub> in an intense laser field: Formation of localized ionic states H+H <sup>+</sup> . <i>Journal of Chemical Physics</i> , 2000, 113, 8953-8960.	3.0	73
5	Theoretical studies on a carbonaceous molecular bearing: association thermodynamics and dual-mode rolling dynamics. <i>Chemical Science</i> , 2015, 6, 2746-2753.	7.4	56
6	Dual transformation for wave packet dynamics: Application to Coulomb systems. <i>Journal of Chemical Physics</i> , 1999, 111, 9498-9508.	3.0	41
7	Stark Spectroscopy of Absorption and Emission of Indoline Sensitizers: A Correlation with the Performance of Photovoltaic Cells. <i>Journal of Physical Chemistry C</i> , 2016, 120, 26206-26216.	3.1	26
8	Selective bond breaking of CO <sub>2</sub> in phase-locked two-color intense laser fields: laser field intensity dependence. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 3550-3556.	2.8	26
9	Theoretical Investigation of the Structures and Dynamics of Crystalline Molecular Gyroscopes. <i>Journal of Physical Chemistry C</i> , 2012, 116, 24845-24854.	3.1	24
10	Diffraction Imaging of $C_{60}$ Structural Deformations Induced by Intense Femtosecond Midinfrared Laser Fields. <i>Physical Review Letters</i> , 2019, 122, 053002.	7.8	20
11	Unbiased Rotational Motions of an Ellipsoidal Guest in a Tight Yet Pliable Host. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2040-2044.	13.8	21
12	Ab initio molecular dynamics and wavepacket dynamics of highly charged fullerene cations produced with intense near-infrared laser pulses. <i>Chemical Physics</i> , 2007, 338, 127-134.	1.9	20
13	Ab initio quantum dynamical analysis of ultrafast nonradiative transitions via conical intersections in pyrazine. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 2012-2014.	2.8	20
14	Real-time observation of X-ray-induced intramolecular and interatomic electronic decay in CH <sub>2</sub> I <sub>2</sub> . <i>Nature Communications</i> , 2019, 10, 2186.	12.8	19
15	Reply to the "Comment on "Theoretical studies on a carbonaceous molecular bearing: association thermodynamics and dual-mode rolling dynamics" by E. M. Cabaleiro-Lago, J. Rodriguez-Otero and A. Gil, <i>Chem. Sci.</i> , 2016, 7, 2929-2932. DOI: 10.1039/C5SC04676A. <i>Chemical Science</i> , 2016, 7, 2929-2932.	7.4	17
16	A crystalline molecular gyrotop with a biphenylene dirotor and its temperature-dependent birefringence. <i>CrystEngComm</i> , 2017, 19, 6049-6056.	2.6	17
17	Characterization of multielectron dynamics in molecules: A multiconfiguration time-dependent Hartree-Fock picture. <i>Journal of Chemical Physics</i> , 2014, 141, 114105.	3.0	16
18	Modulation of Energy Conversion Processes in Carbonaceous Molecular Bearings. <i>Chemistry - an Asian Journal</i> , 2015, 10, 2404-2410.	3.3	15

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19	Nanosecond simulations of the dynamics of C60 excited by intense near-infrared laser pulses: Impulsive Raman excitation, rearrangement, and fragmentation. <i>Journal of Chemical Physics</i> , 2012, 136, 164304.	3.0	14
20	Mechanism and Experimental Observability of Global Switching Between Reactive and Nonreactive Coordinates at High Total Energies. <i>Physical Review Letters</i> , 2015, 115, 093003.	7.8	12
21	Laser-Control of Ultrafast $\pi$ -Electron Ring Currents in Aromatic Molecules: Roles of Molecular Symmetry and Light Polarization. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2347.	2.5	11
22	Time-Dependent Multiconfiguration Theory and Its Application to Ultrafast Electronic Dynamics of Molecules in an Intense Laser Field. <i>Progress of Theoretical Physics Supplement</i> , 2012, 196, 16-38.	0.1	10
23	Communication: Two-step explosion processes of highly charged fullerene cations $C_{60}^{q+}$ ( $q = 20 \sim 60$ ). <i>Journal of Chemical Physics</i> , 2014, 141, 121105.	3.0	10
24	An efficient approximate algorithm for nonadiabatic molecular dynamics. <i>Journal of Chemical Physics</i> , 2018, 149, 244117.	3.0	10
25	Ultrafast nonradiative transition pathways in photo-excited pyrazine: Ab initio analysis of time-resolved vacuum ultraviolet photoelectron spectrum. <i>Chemical Physics</i> , 2018, 515, 704-709.	1.9	10
26	Spin-orbit coupling effects in dihydrides of third-row transition elements. II. Interplay of nonadiabatic coupling in the dissociation path of rhenium dihydride. <i>Journal of Chemical Physics</i> , 2009, 131, 044122.	3.0	9
27	MOLECULES IN INTENSE LASER FIELDS: NONLINEAR MULTIPHOTON SPECTROSCOPY AND NEAR-FEMTOSECOND TO SUB-FEMTOSECOND (ATTOSECOND) DYNAMICS. <i>Advances in Multi-photon Processes and Spectroscopy</i> , 2003, , 149-214.	0.6	9
28	Visible photodissociation of the $CO_2$ dimer cation: fast and slow dissociation dynamics in the excited state. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 3083-3091.	2.8	7
29	Analysis of the multielectron dynamics in intense laser-induced ionization of CO by the time-dependent effective potentials for natural orbitals. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020, 53, 184001.	1.5	7
30	Pulse shape and molecular orientation determine the attosecond charge migration in Caffeine. <i>European Physical Journal B</i> , 2018, 91, 1.	1.5	6
31	Automatic spatial extension of a time-dependent wavefunction expanded in terms of Gaussians: Application to multidimensional tunneling. <i>Chemical Physics Letters</i> , 2018, 708, 170-176.	2.6	6
32	Identification of an ultrafast internal conversion pathway of pyrazine by time-resolved vacuum ultraviolet photoelectron spectrum simulations. <i>Journal of Chemical Physics</i> , 2021, 154, 224304.	3.0	5
33	Intense-Laser-Induced Electron Transfer and Structure Deformation of Molecules. <i>ACS Symposium Series</i> , 2002, , 267-284.	0.5	4
34	Magnetism-tuning strategies for graphene oxide based on magnetic oligoacene oxide patches model. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 3678-3686.	2.8	4
35	Capturing the photo-induced dynamics of nano-molecules by X-ray free electron laser induced Coulomb explosion. <i>Journal of Chemical Physics</i> , 2019, 151, 124305.	3.0	4
36	Direct and precise mapping of intramolecular H-atom motion in $H_2$ by an electron-atom Compton scattering experiment. <i>Physical Review A</i> , 2022, 105, .	2.5	3

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37	A fast and robust trajectory surface hopping method: Application to the intermolecular photodissociation of a carbon dioxide dimer cation (CO <sub>2</sub> ) <sub>2</sub> <sup>+</sup> . Journal of Chemical Physics, 2021, 154, 164108.	3.0	2
38	ELECTRONIC DYNAMICS AND STRUCTURE OF MOLECULES IN INTENSE LASER FIELDS. , 2000, , .		2
39	Molecular Orbital Analysis of High Harmonic Generation. , 2014, , .		1
40	Single-active-electron analysis of laser-polarization effects on atomic/molecular multiphoton excitation. Journal of Chemical Physics, 2017, 147, 154310.	3.0	0
41	Theoretical Investigation of Ultrafast Dynamics of Molecules in Intense Laser Fields. The Review of Laser Engineering, 2007, 35, 691-696.	0.0	0
42	Electronic Dynamics of Atoms and Molecules in Intense Ultrashort Laser Pulses.. The Review of Laser Engineering, 1999, 27, 324-330.	0.0	0