Markus Mk Kowalewski

List of Publications by Year
in descending order

65	1,593	304368 22	301761 39
papers	citations	h-index	g-index

69	69	69	1417
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sustainable packaging of quantum chemistry software with the Nix package manager. International Journal of Quantum Chemistry, 2022, 122, .	1.0	7
2	Photoinduced bond oscillations in ironpentacarbonyl give delayed synchronous bursts of carbonmonoxide release. Nature Communications, 2022, 13, 1337.	5.8	2
3	Tripletâ€triplet Annihilation Dynamics of Naphthalene. Chemistry - A European Journal, 2022, 28, .	1.7	9
4	Probing nonadiabatic dynamics with attosecond pulse trains and soft x-ray Raman spectroscopy. Structural Dynamics, 2022, 9, .	0.9	7
5	Cover Feature: Tripletâ€triplet Annihilation Dynamics of Naphthalene (Chem. Eur. J. 40/2022). Chemistry - A European Journal, 2022, 28, .	1.7	0
6	Controlling the Photostability of Pyrrole with Optical Nanocavities. Journal of Physical Chemistry A, 2021, 125, 1142-1151.	1.1	14
7	Multi-wave mixing in the high harmonic regime: monitoring electronic dynamics. Optics Express, 2021, 29, 4746.	1.7	7
8	Direct Transition from Triplet Excitons to Hybrid Lightâ€“Matter States via Tripletâ€“Triplet Annihilation. Journal of the American Chemical Society, 2021, 143, 7501-7508.	6.6	27
9	Capturing fingerprints of conical intersection: Complementary information of non-adiabatic dynamics from linear x-ray probes. Structural Dynamics, 2021, 8, 034101.	0.9	8
10	Time-Resolved Photoelectron Spectroscopy of Conical Intersections with Attosecond Pulse Trains. Journal of Physical Chemistry Letters, 2021, 12, 8103-8108.	2.1	19
11	Atom Assisted Photochemistry in Optical Cavities. Journal of Physical Chemistry A, 2020, 124, 4672-4677.	1.1	23
12	Simulating photodissociation reactions in bad cavities with the Lindblad equation. Journal of Chemical Physics, 2020, 153, 234304.	1.2	30
13	Ultrafast dynamics in the vicinity of quantum light-induced conical intersections. New Journal of Physics, 2019, 21, 093040.	1.2	36
14	Direct imaging of ultrafast electron dynamics by X-ray sum frequency generation. EPJ Web of Conferences, 2019, 205, 03004.	0.1	0
15	Monitoring nonadiabatic dynamics in molecules by ultrafast X-Ray diffraction. EPJ Web of Conferences, 2019, 205, 09032.	0.1	0
16	Imaging of transition charge densities involving carbon core excitations by all X-ray sum-frequency generation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20170470.	1.6	4
17	Quantum control with quantum light of molecular nonadiabaticity. Physical Review A, 2019, 100, .	1.0	17
18	Phase Cycling RT-TDDFT Simulation Protocol for Nonlinear XUV and X-ray Molecular Spectroscopy. Journal of Physical Chemistry Letters, 2018, 9, 1072-1078.	2.1	13

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19	Attosecond X-ray Diffraction Triggered by Core or Valence Ionization of a Dipeptide. Journal of Chemical Theory and Computation, 2018, 14, 329-338.	2.3	16
20	Impulsive UV-pump/X-ray probe study of vibrational dynamics in glycine. Scientific Reports, 2018, 8, 15466.	1.6	6
21	Multiscale wavelet decomposition of time-resolved X-ray diffraction signals in cyclohexadiene. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10269-10274.	3.3	2
22	Diffraction-Detected Sum Frequency Generation: Novel Ultrafast X-ray Probe of Molecular Dynamics. Journal of Physical Chemistry Letters, 2018, 9, 3392-3396.	2.1	9
23	Monitoring molecular nonadiabatic dynamics with femtosecond X-ray diffraction. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6538-6547.	3.3	58
24	X-Ray Sum Frequency Diffraction for Direct Imaging of Ultrafast Electron Dynamics. Physical Review Letters, 2018, 120, 243902.	2.9	30
25	Monitoring nonadiabatic avoided crossing dynamics in molecules by ultrafast X-ray diffraction. Structural Dynamics, 2017, 4, 054101.	0.9	47
26	Photoinduced molecular chirality probed by ultrafast resonant X-ray spectroscopy. Structural Dynamics, 2017, 4, 044006.	0.9	23
27	Manipulating molecules with quantum light. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3278-3280.	3.3	52
28	Simulating Coherent Multidimensional Spectroscopy of Nonadiabatic Molecular Processes: From the Infrared to the X-ray Regime. Chemical Reviews, 2017, 117, 12165-12226.	23.0	107
29	Comment on â€œSelf-Referenced Coherent Diffraction X-Ray Movie of Ã…ngstrom- and Femtosecond-Scale Atomic Motionâ€• Physical Review Letters, 2017, 119, 069301.	2.9	12
30	Nonlinear optical signals and spectroscopy with quantum light and in microcavitites. , 2017, , .		0
31	Non-adiabatic dynamics of molecules in optical cavities. Journal of Chemical Physics, 2016, 144, 054309.	1.2	121
32	Structural dynamics: general discussion. Faraday Discussions, 2016, 194, 583-620.	1.6	0
33	Attosecond processes and X-ray spectroscopy: general discussion. Faraday Discussions, 2016, 194, 427-462.	1.6	0
34	Electronic and non-adiabatic dynamics: general discussion. Faraday Discussions, 2016, 194, 209-257.	1.6	3
35	An adaptive interpolation scheme for molecular potential energy surfaces. Journal of Chemical Physics, 2016, 145, 084104.	1.2	4
36	Cavity Femtochemistry: Manipulating Nonadiabatic Dynamics at Avoided Crossings. Journal of Physical Chemistry Letters, 2016, 7, 2050-2054.	2.1	158

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37	Monitoring Nonadiabatic Electron-Nuclear Dynamics in Molecules by Attosecond Streaking of Photoelectrons. Physical Review Letters, 2016, 117, 043201.	2.9	35
38	Novel photochemistry of molecular polaritons in optical cavities. Faraday Discussions, 2016, 194, 259-282.	1.6	83
39	Multidimensional resonant nonlinear spectroscopy with coherent broadband x-ray pulses. Physica Scripta, 2016, T169, 014002.	1.2	30
40	Current vs Charge Density Contributions to Nonlinear X-ray Spectroscopy. Journal of Chemical Theory and Computation, 2016, 12, 3959-3968.	2.3	5
41	Nonadiabatic Dynamics May Be Probed through Electronic Coherence in Time-Resolved Photoelectron Spectroscopy. Journal of Chemical Theory and Computation, 2016, 12, 740-752.	2.3	25
42	Coherent Signatures of Conical Interesctions in Ultrafast Raman and Photoelectron Spectroscopy. , 2016, , .		0
43	Manipulating Ultrafast Nondiabatic Dynamics of Molecules in Optical Cavities. , 2016, , .		0
44	Monitoring Ultrafast Nonadiabatic Dynamics in Molecules by Streaking of Photoelectrons. , 2016, , .		0
45	Catching Conical Intersections in the Act: Monitoring Transient Electronic Coherences by Attosecond Stimulated X-Ray Raman Signals. Physical Review Letters, 2015, 115, 193003.	2.9	127
46	Stimulated Raman signals at conical intersections: Ab initio surface hopping simulation protocol with direct propagation of the nuclear wave function. Journal of Chemical Physics, 2015, 143, 044117.	1.2	17
47	Wave packet simulations of antiproton scattering on molecular hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 195204.	0.6	1
48	Probing electronic and vibrational dynamics in molecules by time-resolved photoelectron, Auger-electron, and X-ray photon scattering spectroscopy. Faraday Discussions, 2015, 177, 405-428.	1.6	20
49	Spectroscopic Investigations of High-Nitrogen Compounds for Near-Infrared Illuminants. Propellants, Explosives, Pyrotechnics, 2014, 39, 166-172.	1.0	2
50	Quantum Dynamics of a Photochemical Bond Cleavage Influenced by the Solvent Environment: A Dynamic Continuum Approach. Journal of Physical Chemistry Letters, 2014, 5, 3480-3485.	2.1	18
51	Nucleophilic Substitution Dynamics: Comparing Wave Packet Calculations with Experiment. Journal of Physical Chemistry A, 2014, 118, 4661-4669.	1.1	26
52	Femtosecond pump-probe spectroscopy for single trapped molecular ions. EPJ Web of Conferences, 2013, 41, 02028.	0.1	0
53	Molecular wave packet dynamics decelerated by solvent environment: A theoretical approach. EPJ Web of Conferences, 2013, 41, 05043.	0.1	3
54	A molecular conveyor belt by controlled delivery of single molecules into ultrashort laser pulses. Nature Physics, 2012, 8, 238-242.	6.5	38

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55	Optimal control theory â€“ closing the gap between theory and experiment. Physical Chemistry Chemical Physics, 2012, 14, 14460.	1.3	63
56	Electron Dynamics and Its Control in Molecules: From Diatomics to Larger Molecular Systems. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 119-129.	1.9	21
57	Searching for pathways involving dressed states in optimal control theory. Faraday Discussions, 2011, 153, 159.	1.6	14
58	Cavity sideband cooling of trapped molecules. Physical Review A, 2011, 84, .	1.0	10
59	Chemoselective quantum control of carbonyl bonds in Grignard reactions using shaped laser pulses. Physical Chemistry Chemical Physics, 2010, 12, 15780.	1.3	22
60	Cavity-enhanced sideband cooling of molecules to the ground state of a harmonic trap. , 2009, , .		0
61	Monotonic Convergent Optimal Control Theory with Strict Limitations on the Spectrum of Optimized Laser Fields. Physical Review Letters, 2008, 101, 073002.	2.9	67
62	Cavity Cooling of Internal Molecular Motion. Physical Review Letters, 2007, 99, 073001.	2.9	67
63	Transitionâ€Metalâ€Free Boronâ€“Carbon Bond Activation: Insertion of an NNP Fragment into a Boronâ€“Carbon Bond. European Journal of Inorganic Chemistry, 2007, 2007, 5319-5322.	1.0	11
64	Cavity cooling of translational and ro-vibrational motion of molecules: ab initio-based simulations for OH and NO. Applied Physics B: Lasers and Optics, 2007, 89, 459-467.	1.1	10
65	Reinvestigation of hydrazinium tetrafluoroborate. Acta Crystallographica Section E: Structure Reports Online, 2006, 62, i248-i249.	0.2	5