Raphael David Levine

List of Publications by Year in Descending Order

364 papers	11,965 citations	57 h-index	90 g-index
373 ext. papers	12,724 ext. citations	4.9 avg, IF	6.28 L-index

#	Paper	IF	Citations
364	Compacting the density matrix in quantum dynamics: Singular value decomposition of the surprisal and the dominant constraints for anharmonic systems. *Journal of Chemical Physics*, **2021**, 155, 204110	3.9	0
363	Electronic Coherences Steer the Strong Isotope Effect in the Ultrafast Jahn-Teller Structural Rearrangement of Methane Cation upon Tunnel Ionization. *Journal of Physical Chemistry A*, **2021**, 125, 9495-9507	2.8	1
362	The density matrix via few dominant observables: The quantum interference in the isotope effect for atto-pumped N. *Journal of Chemical Physics*, **2021**, 155, 024109	3.9	2
361	DNA-based constitutional dynamic networks as functional modules for logic gates and computing circuit operations. *Chemical Science*, **2021**, 12, 5473-5483	9.4	4
360	Ultrafast fs coherent excitonic dynamics in CdSe quantum dots assemblies addressed and probed by 2D electronic spectroscopy. *Journal of Chemical Physics*, **2021**, 154, 014301	3.9	4
359	Ultrafast geometrical reorganization of a methane cation upon sudden ionization: an isotope effect on electronic non-equilibrium quantum dynamics. *Physical Chemistry Chemical Physics*, **2021**, 23, 12051-12059	3.6	7
358	Correlated electron–nuclear motion during non-adiabatic transitions in LiH and its isotopomers. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2020**, 53, 134001	1.3	5
357	Parallel Quantum Computation of Vibrational Dynamics. *Frontiers in Physics*, **2020**, 8,	3.9	2
356	Surprisal of a quantum state: Dynamics, compact representation, and coherence effects. *Journal of Chemical Physics*, **2020**, 153, 214105	3.9	3
355	Thermodynamic energetics underlying genomic instability and whole-genome doubling in cancer. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 18880-18890	11.5	2
354	Quantum Device Emulates the Dynamics of Two Coupled Oscillators. *Journal of Physical Chemistry Letters*, **2020**, 11, 6990-6995	6.4	9
353	Massively parallel classical logic via coherent dynamics of an ensemble of quantum systems with dispersion in size. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 21022-21030	11.5	7
352	Intracellular redox potential is correlated with miRNA expression in MCF7 cells under hypoxic conditions. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 19753-19759	11.5	9
351	Consecutive feedback-driven constitutional dynamic networks. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 2843-2848	11.5	25
350	Temporal and spatially resolved imaging of the correlated nuclear-electronic dynamics and of the ionized photoelectron in a coherently electronically highly excited vibrating LiH molecule. *Journal of Chemical Physics*, **2019**, 151, 134310	3.9	8
349	Time resolved mechanism of the isotope selectivity in the ultrafast light induced dissociation in N. *Journal of Chemical Physics*, **2019**, 151, 114308	3.9	3
348	Propagation of nonstationary electronic and nuclear states: attosecond dynamics in LiF. *Molecular Physics*, **2018**, 116, 2524-2532	1.7	2

347	Time-dependent view of an isotope effect in electron-nuclear nonequilibrium dynamics with applications to N. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 5890-5895	11.5	11
346	Personalized disease signatures through information-theoretic compaction of big cancer data. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 7694-7699	11.5	14
345	Intercommunication of DNA-Based Constitutional Dynamic Networks. *Journal of the American Chemical Society*, **2018**, 140, 8721-8731	16.4	32
344	A Probabilistic Finite State Logic Machine Realized Experimentally on a Single Dopant Atom. *Nano Letters*, **2017**, 17, 1846-1852	11.5	7
343	Continuous variables logic coupled automata using a DNAzyme cascade with feedback. *Chemical Science*, **2017**, 8, 2161-2168	9.4	21
342	Spatial and temporal control of populations, branching ratios, and electronic coherences in LiH by a single one-cycle infrared pulse. *Physical Review A*, **2017**, 95,	2.6	16
341	Coherent electronic and nuclear dynamics in a rhodamine heterodimer-DNA supramolecular complex. *Physical Chemistry Chemical Physics*, **2017**, 19, 23043-23051	3.6	20
340	Photochemistry of highly excited states. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 13594-13596	11.5	4
339	Pumping and probing vibrational modulated coupled electronic coherence in HCN using short UV fs laser pulses: a 2D quantum nuclear dynamical study. *Physical Chemistry Chemical Physics*, **2017**, 19, 19837-19846	2.6	3
338	Electronic and Nuclear Dynamics for a Non-Equilibrium Electronic State: The Ultrafast Pumping of N2. *Progress in Theoretical Chemistry and Physics*, **2017**, 195-208	0.6	2
337	Controlling Coherent Quantum Nuclear Dynamics in LiH by Ultra Short IR Atto Pulses. *Springer Series in Chemical Physics*, **2017**, 41-65	0.3	1
336	A Thermodynamic-Based Interpretation of Protein Expression Heterogeneity in Different Glioblastoma Multiforme Tumors Identifies Tumor-Specific Unbalanced Processes. *Journal of Physical Chemistry B*, **2016**, 120, 5990-7	3.4	8
335	Quantum Nuclear Dynamics Pumped and Probed by Ultrafast Polarization Controlled Steering of a Coherent Electronic State in LiH. *Journal of Physical Chemistry A*, **2016**, 120, 3343-52	2.8	20
334	Probing in Space and Time the Nuclear Motion Driven by Nonequilibrium Electronic Dynamics in Ultrafast Pumped N2. *Journal of Physical Chemistry A*, **2016**, 120, 3335-42	2.8	11
333	Intercellular signaling through secreted proteins induces free-energy gradient-directed cell movement. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 5520-5	11.5	31
332	Coherent electronic wave packet motion in C(60) controlled by the waveform and polarization of few-cycle laser fields. *Physical Review Letters*, **2015**, 114, 123004	7.4	46
331	Parallel and Multivalued Logic by the Two-Dimensional Photon-Echo Response of a Rhodamine□DNA Complex. *Journal of Physical Chemistry Letters*, **2015**, 6, 1714-8	6.4	20
330	Ternary DNA computing using 3 □3 multiplication matrices. *Chemical Science*, **2015**, 6, 1288-1292	9.4	36

329	Metabolomic analysis of the green microalga Chlamydomonas reinhardtii cultivated under day/night conditions. *Journal of Biotechnology*, **2015**, 215, 20-6	3.7	23
328	Statistical thermodynamics of transcription profiles in normal development and tumorigeneses in cohorts of patients. *European Biophysics Journal*, **2015**, 44, 709-26	1.9	8
327	Information processing in parallel through directionally resolved molecular polarization components in coherent multidimensional spectroscopy. *Journal of Chemical Physics*, **2015**, 143, 064106	3.9	8
326	Glioblastoma cellular architectures are predicted through the characterization of two-cell interactions. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 6521-6	11.5	44
325	A full-adder based on reconfigurable DNA-hairpin inputs and DNAzyme computing modules. *Chemical Science*, **2014**, 5, 3381	9.4	69
324	DNAzyme-based 2:1 and 4:1 multiplexers and 1:2 demultiplexer. *Chemical Science*, **2014**, 5, 1074	9.4	74
323	Electronic dynamics by ultrafast pump photoelectron detachment probed by ionization: a dynamical simulation of negative-neutral-positive in LiH(-). *Journal of Physical Chemistry A*, **2014**, 118, 6721-9	2.8	14
322	Massive isotopic effect in vacuum UV photodissociation of N2 and implications for meteorite data. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 14704-9	11.5	37
321	Charge migration in the bifunctional PENNA cation induced and probed by ultrafast ionization: a dynamical study. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2014**, 47, 124011	1.3	51
320	Computational surprisal analysis speeds-up genomic characterization of cancer processes. *PLoS ONE*, **2014**, 9, e108549	3.7	3
319	Surprisal analysis characterizes the free energy time course of cancer cells undergoing epithelial-to-mesenchymal transition. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 13235-40	11.5	38
318	Control of electronic dynamics visualized by angularly resolved photoelectron spectra: A dynamical simulation with an IR pump and XUV attosecond-pulse-train probe. *Physical Review A*, **2014**, 89,	2.6	26
317	Pump and probe of ultrafast charge reorganization in small peptides: a computational study through sudden ionizations. *Journal of Physical Chemistry A*, **2013**, 117, 10513-25	2.8	28
316	Molecular decision trees realized by ultrafast electronic spectroscopy. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 17183-8	11.5	21
315	miRNA and mRNA cancer signatures determined by analysis of expression levels in large cohorts of patients. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 19160-5	11.5	57
314	Free energy rhythms in Saccharomyces cerevisiae: a dynamic perspective with implications for ribosomal biogenesis. *Biochemistry*, **2013**, 52, 1641-8	3.2	9
313	Hypoxia induces a phase transition within a kinase signaling network in cancer cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, E1352-60	11.5	55
312	Realization of Complex Logic Operations at the Nanoscale. *Advances in Atom and Single Molecule Machines*, **2013**, 195-220	0	3

311	Ultrafast predissociation mechanism of the 1Πu states of 14N2 and its isotopomers upon attosecond excitation from the ground state. *Journal of Physical Chemistry A*, **2012**, 116, 11311-8	2.8	16
310	Localized electron dynamics in attosecond-pulse-excited molecular systems: Probing the time-dependent electron density by sudden photoionization. *Physical Review A*, **2012**, 86,	2.6	49
309	Logic reversibility and thermodynamic irreversibility demonstrated by DNAzyme-based Toffoli and Fredkin logic gates. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 21228-33	11.5	77
308	On a fundamental structure of gene networks in living cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 4702-7	11.5	42
307	Protein signaling networks from single cell fluctuations and information theory profiling. *Biophysical Journal*, **2011**, 100, 2378-86	2.9	50
306	Whose Entropy: A Maximal Entropy Analysis of Phosphorylation Signaling. *Journal of Statistical Physics*, **2011**, 144, 429-442	1.5	2
305	Convergence of logic of cellular regulation in different premalignant cells by an information theoretic approach. *BMC Systems Biology*, **2011**, 5, 42	3.5	24
304	Stereocontrol of attosecond time-scale electron dynamics in ABCU using ultrafast laser pulses: a computational study. *Physical Chemistry Chemical Physics*, **2011**, 13, 8331-44	3.6	31
303	Integrated logic circuits using single-atom transistors. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 13969-72	11.5	31
302	Attosecond pumping of nonstationary electronic states of LiH: Charge shake-up and electron density distortion. *Physical Review A*, **2011**, 83,	2.6	38
301	On the strong and selective isotope effect in the UV excitation of N2 with implications toward the nebula and Martian atmosphere. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 6020-5	11.5	43
300	Logic implementations using a single nanoparticle-protein hybrid. *Nature Nanotechnology*, **2010**, 5, 451-7	28.7	29
299	All-DNA finite-state automata with finite memory. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 21996-2001	11.5	112
298	Ternary logic implemented on a single dopant atom field effect silicon transistor. *Applied Physics Letters*, **2010**, 96, 043107	3.4	22
297	Maximal entropy inference of oncogenicity from phosphorylation signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 6112-7	11.5	9
296	Information-theoretic analysis of phenotype changes in early stages of carcinogenesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 10324-9	11.5	59
295	Electrically Addressing a Molecule-Like Donor Pair in Silicon: An Atomic Scale Cyclable Full Adder Logic. *Journal of Physical Chemistry C*, **2010**, 114, 20380-20386	3.8	8
294	Redox-Executed Logic Operations through the Reversible Voltammetric Response Characteristics of Electroactive Self-Assembled Monolayers. *Australian Journal of Chemistry*, **2010**, 63, 173	1.2	7

293	The post-Born□Oppenheimer regime: dynamics of electronic motion in molecules by attosecond few-cycle spectroscopy. *Physica Scripta*, **2009**, 80, 048101	2.6	25
292	The elimination of redundant constraints in surprisal analysis of unimolecular dissociation and other endothermic processes. *Journal of Physical Chemistry A*, **2009**, 113, 4658-64	2.8	5
291	Pump and probe ultrafast electron dynamics in LiH: a computational study. *New Journal of Physics*, **2008**, 10, 025019	2.9	83
290	All Optical Full Adder Based on Intramolecular Electronic Energy Transfer in the Rhodamine□Azulene Bichromophoric System. *Journal of Physical Chemistry C*, **2008**, 112, 15880-15885	3.8	19
289	Principles of design of a set-reset finite state logic nanomachine. *Journal of Applied Physics*, **2008**, 104, 044509	2.5	12
288	Transcending binary logic by gating three coupled quantum dots. *Nano Letters*, **2007**, 7, 2795-9	11.5	29
287	Time-Resolved Electrochemical Spectroscopy of Charge Migration in Molecular Wires: Computational Evidence for Rich Electronic Dynamics. *Journal of Physical Chemistry C*, **2007**, 111, 2301-2309	3.8	8
286	The Emergence of a Coupled Quantum Dot Array in a Doped Silicon Nanowire Gated by Ultrahigh Density Top Gate Electrodes□ *Journal of Physical Chemistry C*, **2007**, 111, 17852-17860	3.8	3
285	Separation of Time Scales in the Dynamics of High Molecular Rydberg States. *Advances in Chemical Physics*, **2007**, 625-646		6
284	Fluctuations in Spectral Intensities and Transition Rates. *Advances in Chemical Physics*, **2007**, 53-95		58
283	Level Structure and Dynamics from Diatomics to Clusters. *Advances in Chemical Physics*, **2007**, 1-34		10
282	Photoselective Chemistry. *Advances in Chemical Physics*, **2007**, 1-114		73
281	The Information Theoretic Approach to Intramolecular Dynamics. *Advances in Chemical Physics*, **2007**, 239-292		33
280	Towards parallel computing: representation of a linear finite state digital logic machine by a molecular relaxation process. *European Physical Journal D*, **2007**, 42, 49-59	1.3	5
279	Probing Ultrafast Purely Electronic Charge Migration in Small Peptides. *Zeitschrift Fur Physikalische Chemie*, **2007**, 221, 647-661	3.1	47
278	The entropy of a single large finite system undergoing both heat and work transfer. *Molecular Physics*, **2007**, 105, 419-427	1.7	3
277	Laser steered ultrafast quantum dynamics of electrons in LiH. *Physical Review Letters*, **2007**, 99, 183902	7.4	110
276	Probing electronic rearrangement during chemical reactions. *Physica Scripta*, **2006**, 73, C1-C5	2.6	2

275	The time scale for electronic reorganization upon sudden ionization of the water and water-methanol hydrogen bonded dimers and of the weakly bound NO dimer. *Journal of Chemical Physics*, **2006**, 125, 133321	3.9	24
274	A mechanical representation of entropy for a large finite system. *Journal of Chemical Physics*, **2006**, 125, 144516	3.9	7
273	All-optical digital logic: Full addition or subtraction on a three-state system. *Physical Review A*, **2006** , 73,	2.6	39
272	An electronic time scale in chemistry. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 6793-8	11.5	305
271	Electrical transport in saturated and conjugated molecular wires. *Faraday Discussions*, **2006**, 131, 45-67; discussion 91-109	3.6	24
270	Dissociation kinetics of peptide ions. *Journal of Physical Chemistry A*, **2006**, 110, 8497-500	2.8	27
269	Mechanical simulation of the pressure and the relaxation to thermal equilibrium of a hot and dense rare gas cluster. *Journal of Physical Chemistry B*, **2006**, 110, 24070-6	3.4	1
268	A counter based on the electrical input/output stimuli activation of an array of quantum dots. *ChemPhysChem*, **2005**, 6, 1239-42	3.2	11
267	Evanescent high pressure during hypersonic cluster-surface impact characterized by the virial theorem. *Journal of Chemical Physics*, **2005**, 123, 194307	3.9	4
266	Electrical addressing of confined quantum systems for quasiclassical computation and finite state logic machines. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 5653-8	11.5	38
265	Level crossing conductance spectroscopy of molecular bridges. *Applied Physics Letters*, **2004**, 85, 1725-1727	3.4	8
264	Nanowiring by Molecules. *Journal of Physical Chemistry B*, **2004**, 108, 18129-18134	3.4	16
263	Quasiclassical computation. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 12091-5	11.5	15
262	Electronic and electrical response of arrays of metallic quantum dots. *International Journal of Quantum Chemistry*, **2004**, 99, 743-751	2.1	5
261	Systematics of Collision-Induced Light Emission from Hot Matter *Journal of Physical Chemistry A*, **2004**, 108, 8949-8953	2.8	3
260	Collision-Induced IR Emission Spectra of Impact-Heated Rare-Gas Clusters. *Journal of Physical Chemistry A*, **2003**, 107, 9567-9574	2.8	11
259	Gating the Conductivity of Arrays of Metallic Quantum Dots. *Journal of Physical Chemistry B*, **2003**, 107, 13892-13901	3.4	44
258	Voltage-induced phase transition in arrays of metallic nanodots: Computed transport and surface potential structure. *Applied Physics Letters*, **2003**, 82, 4543-4545	3.4	5

257	Spectroscopic characterization of collision-induced electronic deformation energy using sum rules. *Journal of Chemical Physics*, **2003**, 119, 4283-4293	3.9	10
256	SURVEY OF STRUCTURE, ENERGETICS AND DYNAMICS OF CLUSTERS. *Advanced Series in Physical Chemistry*, **2003**, 1-77		0
255	Delayed Ionization. *Springer Series in Cluster Physics*, **2003**, 199-222		1
254	Conductivity of 2-D Ag Quantum Dot Arrays: Computational Study of the Role of Size and Packing Disorder at Low Temperatures. *Journal of Physical Chemistry B*, **2002**, 106, 4116-4126	3.4	33
253	Improved corresponding states scaling of the equations of state of simple fluids. *Journal of Chemical Physics*, **2002**, 117, 4632-4634	3.9	12
252	Quantum dot artificial solids: understanding the static and dynamic role of size and packing disorder. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99 Suppl 2, 6456-9	11.5	45
251	Voltage-Induced Nonlinear Characteristics of Arrays of Metallic Quantum Dots. *Nano Letters*, **2002**, 2, 697-701	11.5	7
250	Current□oltage□emperature characteristics for 2D arrays of metallic quantum dots. *Israel Journal of Chemistry*, **2002**, 42, 269-280	3.4	12
249	Size Effects in the Electronic Properties of Finite Arrays of Exchange-Coupled Quantum Dots. *Journal of Physical Chemistry B*, **2002**, 106, 12847-12850	3.4	10
248	Quantum dots as chemical building blocks: elementary theoretical considerations. *ChemPhysChem*, **2001**, 2, 20-36	3.2	111
247	Electronic isomerism: symmetry breaking and electronic phase diagrams for diatomic molecules at the large-dimension limit. *ChemPhysChem*, **2001**, 2, 434-42	3.2	7
246	IR-UV Double-Resonance Photodissociation of Nitric Acid (HONO2) Viewed as Molecular Information Processing. *Angewandte Chemie*, **2001**, 113, 2580-2582	3.6	1
245	IR-UV Double-Resonance Photodissociation of Nitric Acid (HONO) Viewed as Molecular Information Processing. *Angewandte Chemie - International Edition*, **2001**, 40, 2512-2514	16.4	14
244	Logic gates using high Rydberg states. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 2973-8	11.5	25
243	Towards a molecular logic machine. *Journal of Chemical Physics*, **2001**, 114, 10239-10246	3.9	38
242	A molecular logic gate. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 410-4	11.5	114
241	Excitation of Rydberg series in C60. *Physical Review Letters*, **2001**, 87, 273401	7.4	50
240	Intermolecular and Intramolecular Logic Gates. *Journal of Physical Chemistry B*, **2001**, 105, 5589-5591	3.4	108

239	On the crossing of electronic energy levels of diatomic molecules at the large-D limit. *Journal of Chemical Physics*, **2001**, 114, 9697-9705	3.9	2
238	Superexchange, Localized, and Domain-Localized Charge States for Intramolecular Electron Transfer in Large Molecules and in Arrays of Quantum Dots. *Journal of Physical Chemistry B*, **2001**, 105, 2153-2162	3.4	29
237	Electron–Nuclear Coupling in the Classical Limit for the Electronic Degrees of Freedom. *Journal of Physical Chemistry A*, **2001**, 105, 2708-2715	2.8	10
236	Essentials of Cluster Impact Chemistry **2001**, 849-872		1
235	On the classical limit for electronic structure and dynamics in the orbital approximation. *Journal of Chemical Physics*, **2000**, 113, 4515-4523	3.9	7
234	Architecture with designer atoms: simple theoretical considerations. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 553-8	11.5	31
233	On a classical limit for electronic degrees of freedom that satisfies the Pauli exclusion principle. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 1965-9	11.5	5
232	Delayed ionization and fragmentation en route to thermionic emission: statistics and dynamics. *Annual Review of Physical Chemistry*, **2000**, 51, 65-98	15.7	130
231	Broken Symmetry in the Density of Electronic States of an Array of Quantum Dots As Computed for Scanning Tunneling Microscopy. *Journal of Physical Chemistry A*, **2000**, 104, 10435-10441	2.8	9
230	Electronic Response of Assemblies of Designer Atoms: The Metal–Insulator Transition and the Role of Disorder. *Journal of the American Chemical Society*, **2000**, 122, 4084-4091	16.4	50
229	Configuration Interaction between Covalent and Ionic States in the Quantal and Semiclassical Limits with Application to Coherent and Hopping Charge Migration. *Journal of Physical Chemistry A*, **2000**, 104, 2341-2350	2.8	15
228	Driving High Threshold Chemical Reactions by Cluster-Surface Collisions: Molecular Dynamics Simulations for CH3I Clusters. *Journal of Physical Chemistry A*, **1999**, 103, 10179-10186	2.8	9
227	Electronic Control of Site Selective Reactivity: A Model Combining Charge Migration and Dissociation. *Journal of Physical Chemistry A*, **1999**, 103, 10149-10158	2.8	75
226	Charge migration and control of site selective reactivity: The role of covalent and ionic states. *Journal of Chemical Physics*, **1999**, 110, 5089-5099	3.9	42
225	On the independence of correlated events. *International Journal of Quantum Chemistry*, **1999**, 74, 467-478	1.1	2
224	The Dynamics of Electron–Core Interaction in High Molecular Rydberg States **1999**, 329-391		
223	Maximum Entropy Error Bound for Monte Carlo Sampling. *Open Systems and Information Dynamics*, **1998**, 5, 303-317	0.4	3
222	On the inverse Born–Oppenheimer separation for high Rydberg states of molecules. *International Journal of Quantum Chemistry*, **1998**, 67, 85-100	2.1	13

221	Prompt and Delayed Dissociation of Energy-Rich Larger Molecules. *Journal of Physical Chemistry A*, **1998**, 102, 10195-10198	2.8	10
220	Networks of Quantum Nanodots: The Role of Disorder in Modifying Electronic and Optical Properties. *Journal of Physical Chemistry B*, **1998**, 102, 7727-7734	3.4	50
219	Collisional energy loss in cluster surface impact: Experimental, model, and simulation studies of some relevant factors. *Journal of Chemical Physics*, **1998**, 108, 10262-10273	3.9	50
218	Time and frequency resolved spectra of high molecular Rydberg states by dynamical computations. *Journal of Chemical Physics*, **1997**, 107, 3392-3401	3.9	6
217	Non-adiabatic molecular dynamics: Split-operator multiple spawning with applications to photodissociation. *Journal of the Chemical Society, Faraday Transactions*, **1997**, 93, 941-947		43
216	Physical aspects and quantitative theory of time resolved spectroscopy of high molecular Rydberg states. *Journal of Chemical Physics*, **1997**, 107, 3382-3391	3.9	15
215	Molecular Collision Dynamics on Several Electronic States. *Journal of Physical Chemistry A*, **1997**, 101, 6389-6402	2.8	106
214	Nonstationary Electronic States and Site-Selective Reactivity. *Journal of Physical Chemistry A*, **1997**, 101, 7702-7710	2.8	97
213	Dynamical Stereochemistry on Several Electronic States: A Computational Study of Na* + H2. *Journal of Physical Chemistry A*, **1997**, 101, 7522-7529	2.8	14
212	Electric Field Effects on Long Living ZEKE States. *The Journal of Physical Chemistry*, **1996**, 100, 15320-15327		13
211	On the zero point energy in classical trajectory computations. *Journal of Chemical Physics*, **1996**, 105, 8136-8141	3.9	42
210	Multi-Electronic-State Molecular Dynamics: A Wave Function Approach with Applications. *The Journal of Physical Chemistry*, **1996**, 100, 7884-7895		335
209	Time and Frequency Resolved ZEKE Spectroscopy. *The Journal of Physical Chemistry*, **1996**, 100, 19735-19739		8
208	Solvent-induced nonadiabatic transitions in iodine: An ultrafast pump–probe computational study. *Journal of Chemical Physics*, **1996**, 105, 3035-3056	3.9	34
207	Unimolecular Dissociation from a Dense Set of States. *The Journal of Physical Chemistry*, **1996**, 100, 7962-7971		25
206	Rotational autoionization and interseries coupling of high Rydberg states by the anisotropy of the molecular core: The quantal long time evolution. *Journal of Chemical Physics*, **1996**, 105, 4649-4663	3.9	28
205	On the shattering of clusters by surface impact heating. *Journal of Chemical Physics*, **1996**, 105, 8097-8102	3.9	60
204	On the effects of an internal barrier on fast four-atom ion–molecule reactions. *Journal of Chemical Physics*, **1996**, 105, 953-964	3.9	1

203	Decay of high Rydberg states: A paradigm for intramolecular dynamics in a congested bound level structure coupled to a continuum. *Journal of Chemical Physics*, **1996**, 104, 1399-1414	3.9	53
202	The dynamics of Rydberg states of molecules in the intermediate regime: The role of the vibrations. *Journal of Chemical Physics*, **1996**, 104, 1937-1952	3.9	19
201	First-principles molecular dynamics on multiple electronic states: A case study of NaI. *Journal of Chemical Physics*, **1996**, 105, 6334-6341	3.9	61
200	Rydberg states about dipolar cores: The quantum dynamics of the long-range anisotropic interaction. *Physical Review A*, **1996**, 54, 4789-4801	2.6	19
199	Dynamics of Chemical Reactions Induced by Cluster Impact. *Springer Series in Chemical Physics*, **1996** , 155-164	0.3	
198	Shattering of clusters upon surface impact: An experimental and theoretical study. *Physical Review Letters*, **1995**, 75, 2670-2673	7.4	78
197	Fragment size distribution in cluster impact: Shattering versus evaporation by a statistical approach. *Journal of Chemical Physics*, **1995**, 103, 5394-5409	3.9	69
196	Long lifetimes of high molecular Rydberg states in crossed magnetic and electric fields: An experimental and classical computational study. *Physical Review A*, **1995**, 51, 3922-3933	2.6	29
195	Dynamics and kinetics of molecular high Rydberg states in the presence of an electrical field: An experimental and classical computational study. *Journal of Chemical Physics*, **1995**, 102, 1619-1638	3.9	45
194	How Large Are High Molecular Rydberg States? A Direct Experimental Test. *The Journal of Physical Chemistry*, **1995**, 99, 1660-1665		21
193	Four-Center Reactions: A Computational Study of Collisional Activation, Concerted Bond Switching, and Collisional Stabilization in Impact Heated Clusters. *The Journal of Physical Chemistry*, **1995**, 99, 7495-7506		54
192	Concerted vs Sequential Four-Center Reactions: A Computational Study of High-Energy Dynamics. *The Journal of Physical Chemistry*, **1995**, 99, 13713-13715		24
191	Kinetics and dynamics of reactions in liquids. *International Reviews in Physical Chemistry*, **1995**, 14, 215-270		26
190	A Quantitative Model for the Dynamics of High Rydberg States of Molecules: The Iterated Map and its Kinetic Limit. *Zeitschrift Fur Elektrotechnik Und Elektrochemie*, **1995**, 99, 310-322		17
189	Overlapping Resonances, Multiple Time Regime Evolution Laws and the Sampling of Phase Space in Unimolecular Processes. *Journal of the Chinese Chemical Society*, **1995**, 42, 381-392	1.5	5
188	Algebraic Theory of Molecules **1995**,		248
187	Information Theory Approach in Chemical Dynamics **1995**, 195-216		
186	Observations of Molecular Rydberg State Decay for n = 10-200. *The Journal of Physical Chemistry*, **1994**, 98, 3472-3477		64

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