

Thomas Rescigno

List of Publications by Year in descending order

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50

papers

2,841

citations

201674

27

h-index

189892

50

g-index

50

all docs

50

docs citations

50

times ranked

1150

citing authors

#	ARTICLE	IF	CITATIONS
1	Collisional Breakup in a Quantum System of Three Charged Particles. <i>Science</i> , 1999, 286, 2474-2479.	12.6	450
2	Numerical grid methods for quantum-mechanical scattering problems. <i>Physical Review A</i> , 2000, 62, .	2.5	318
3	Solving the three-body Coulomb breakup problem using exterior complex scaling. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2004, 37, R137-R187.	1.5	255
4	Cross sections for resonant vibrational excitation of N ₂ by electron impact. <i>Physical Review A</i> , 1981, 23, 1089-1099.	2.5	170
5	Electron-impact ionization of atomic hydrogen. <i>Physical Review A</i> , 2001, 63, .	2.5	122
6	Accurate amplitudes for electron-impact ionization. <i>Physical Review A</i> , 2001, 64, .	2.5	110
7	Dynamics of Low-Energy Electron Attachment to Formic Acid. <i>Physical Review Letters</i> , 2006, 96, 213201.	7.8	90
8	Double photoionization of aligned molecular hydrogen. <i>Physical Review A</i> , 2006, 74, .	2.5	85
9	Theoretical treatment of double photoionization of helium using aB-spline implementation of exterior complex scaling. <i>Physical Review A</i> , 2004, 69, .	2.5	76
10	Approach to electron-impact ionization that avoids the three-body Coulomb asymptotic form. <i>Physical Review A</i> , 1997, 56, 1958-1969.	2.5	64
11	Dissociative electron attachment to the H ₂ O molecule. II. Nuclear dynamics on coupled electronic surfaces within the local complex potential model. <i>Physical Review A</i> , 2007, 75, .	2.5	62
12	Imaging Polyatomic Molecules in Three Dimensions Using Molecular Frame Photoelectron Angular Distributions. <i>Physical Review Letters</i> , 2012, 108, 233002.	7.8	62
13	Dynamics of dissociative attachment of electrons to water through the B12 metastable state of the anion. <i>Physical Review A</i> , 2004, 69, .	2.5	60
14	Theoretical study of resonant vibrational excitation of CO ₂ by electron impact. <i>Physical Review A</i> , 2002, 65, .	2.5	54
15	Resonant vibrational excitation of CO ₂ by electron impact: Nuclear dynamics on the coupled components of the 2̂ resonance. <i>Physical Review A</i> , 2003, 67, .	2.5	54
16	Dissociative electron attachment to the H ₂ O molecule I. Complex-valued potential-energy surfaces for the B12, A12, and B22 metastable states of the water anion. <i>Physical Review A</i> , 2007, 75, .	2.5	53
17	Theoretical studies of low-energy electron-CO ₂ scattering: Total, elastic, and differential cross sections. <i>Physical Review A</i> , 1999, 60, 2186-2193.	2.5	52
18	Grid-based methods for diatomic quantum scattering problems. III. Double photoionization of molecular hydrogen in prolate spheroidal coordinates. <i>Physical Review A</i> , 2010, 82, .	2.5	50

#	ARTICLE	IF	CITATIONS
19	Extracting amplitudes for single and double ionization from a time-dependent wave packet. Physical Review A, 2007, 76, .	2.5	49
20	Interchannel coupling and ground state correlation effects in the photoionization of CO. Journal of Chemical Physics, 1993, 99, 5097-5103.	3.0	43
21	Ab initiocomplex Kohn calculations of dissociative excitation of water. Physical Review A, 1994, 49, 2642-2650.	2.5	42
22	THE INCORPORATION OF MODERN ELECTRONIC STRUCTURE METHODS IN ELECTRONâ€“MOLECULE COLLISION PROBLEMS: VARIATIONAL CALCULATIONS USING THE COMPLEX KOHN METHOD. Advanced Series in Physical Chemistry, 1995, , 501-588.	1.5	36
23	Complex potential surface for theB12metastable state of the water anion. Physical Review A, 2004, 69, .	2.5	33
24	Theoretical study of electron-impact excitation ofN2+. Physical Review A, 1990, 42, 5292-5297.	2.5	32
25	Low-energy electron scattering by formic acid. Physical Review A, 2006, 74, .	2.5	32
26	Practical calculations of quantum breakup cross sections. Physical Review A, 2000, 62, .	2.5	29
27	Use of two-body close-coupling formalisms to calculate three-body breakup cross sections. Physical Review A, 1999, 60, 3740-3749.	2.5	28
28	Dissociative electron attachment to carbon dioxide via theCO_2 + e^- → CO_2^+ + e^- resonance. Physical Review A, 2013, 88, .	2.5	26
29	Dynamics of dissociative electron attachment to ammonia. Physical Review A, 2016, 93, .	2.5	26
30	Topology of the adiabatic potential energy surfaces for the resonance states of the water anion. Physical Review A, 2005, 72, .	2.5	24
31	Theoretical study of asymmetric molecular-frame photoelectron angular distributions forCH_3Cl + e^- → CH_3Cl^+ + e^- reaction. Physical Review A, 2009, 79, .	2.5	22
32	Imaging molecular isomerization using molecular-frame photoelectron angular distributions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 194001.	1.5	22
33	Ion-momentum imaging of resonant dissociative-electron-attachment dynamics in methanol. Physical Review A, 2013, 87, .	2.5	21
34	Hybrid Gaussianâ€“discrete-variable representation for one- and two-active-electron continuum calculations in molecules. Physical Review A, 2014, 90, .	2.5	20
35	Low-energy electron scattering fromCH_3Cl. Physical Review A, 1997, 56, 2855-2859.	2.5	19
36	Imaging molecular shapes with molecular-frame photoelectron angular distributions from core hole ionization. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 194002.	1.5	19

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37	Resolution of phase ambiguities in electron-impact ionization amplitudes. Physical Review A, 2003, 68, .	2.5	18	
38	Observation of the dynamics leading to a conical intersection in dissociative electron attachment to water. Physical Review A, 2011, 84, .	2.5	17	
39	Ion-momentum imaging of dissociative attachment of electrons to molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 222001.	1.5	17	
40	Single and triple differential cross sections for double photoionization of H ⁺ . Physical Review A, 2007, 75, .	2.5	15	
41	Unambiguous observation of F-atom core-hole localization in $\text{CF}_{\text{sub}4}$ through body-frame photoelectron angular distributions. Physical Review A, 2017, 95, .	2.5	14	
42	Algebraic variational approach to atomic and molecular photoionization cross sections: Removing the energy dependence from the basis. Physical Review A, 1997, 55, 342-346.	2.5	10	
43	Resonance signatures in the body-frame valence photoionization of $\text{CF}_{\text{sub}4}$. Physical Chemistry Chemical Physics, 2018, 20, 21075-21084.	2.8	10	
44	Calculation of scattering amplitudes as continuous functions of energy: R-matrix theory without a box. Physical Review A, 1998, 57, 3511-3517.	2.5	8	
45	Two-photon double ionization of atomic beryllium with ultrashort laser pulses. Physical Review A, 2015, 92, .	2.5	8	
46	Selective bond-breaking in formic acid by dissociative electron attachment. Physical Chemistry Chemical Physics, 2020, 22, 13893-13902.	2.8	5	
47	Nuclear dynamics in resonant electron collisions with small polyatomic molecules. Journal of Physics: Conference Series, 2007, 88, 012027.	0.4	4	
48	Application of exterior complex scaling to positron-hydrogen collisions including rearrangement. Physical Review A, 2008, 77, .	2.5	3	
49	Comment on "A wave packet method for treating nuclear dynamics on complex potentials". Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 1461-1463.	1.5	1	
50	Inner-shell photodetachment of $\text{C}_{\text{sub}n}$ ions. Physical Review A, 2020, 101, .	2.5	1	