

Karel Houfek

List of Publications by Year in descending order

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34
papers

343
citations

840776

11
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839539

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docs citations

34
times ranked

295
citing authors

#	ARTICLE	IF	CITATIONS
1	Dissociative electron attachment and vibrational excitation of H ₂ by low-energy electrons: Calculations based on an improved nonlocal resonance model. Physical Review A, 2004, 70, .	2.5	55
2	Nonlocal model of dissociative electron attachment and vibrational excitation of NO. Physical Review A, 2005, 71, .	2.5	43
3	Dissociative electron attachment and vibrational excitation of H ₂ by low-energy electrons: Calculations based on an improved nonlocal resonance model. II. Vibrational excitation. Physical Review A, 2006, 73, .	2.5	37
4	Resonances and Dissociative Electron Attachment in HNCO. Physical Review Letters, 2018, 121, 143402.	7.8	25
5	Probing the nonlocal approximation to resonant collisions of electrons with diatomic molecules. Physical Review A, 2008, 77, .	2.5	19
6	Numerically solvable model for resonant collisions of electrons with diatomic molecules. Physical Review A, 2006, 73, .	2.5	17
7	Electron scattering in HCl: An improved nonlocal resonance model. Physical Review A, 2010, 81, .	2.5	16
8	Calculation of rate constants for dissociative attachment of low-energy electrons to hydrogen halides HCl, HBr, and HI and their deuterated analogs. Physical Review A, 2002, 66, .	2.5	14
9	Dissociative electron attachment and vibrational excitation of CF ₃ Cl: Effect of two vibrational modes revisited. Physical Review A, 2011, 84, .	2.5	14
10	Interaction of O ⁺ and H ₂ at low temperatures. Journal of Chemical Physics, 2015, 142, 014304.	3.0	12
11	On irregular oscillatory structures in resonant vibrational excitation cross-sections in diatomic molecules. Chemical Physics, 2008, 347, 250-256.	1.9	11
12	Vibronic Coupling through the Continuum in the e ⁻ +CO System. Physical Review Letters, 2022, 129, .	7.8	11
13	Role of electronic correlations in photoionization of NO ₂ in the vicinity of the A ₁ ⁺ B ₂ ⁺ conical intersection. Physical Chemistry Chemical Physics, 2017, 19, 19673-19682.	2.8	9
14	Electron-impact vibrational excitation of isocyanic acid HNCO. Physical Review A, 2020, 102, .	2.5	7
15	Vibronic excitation in the e ⁻ +CO system: Nonlocal model of e ⁻ +CO vibronic coupling through the continuum. Physical Review A, 2022, 105, .	2.5	7
16	Collisions of electrons with hydrogen atoms II. Low-energy program using the method of the exterior complex scaling. Computer Physics Communications, 2014, 185, 2903-2912.	7.5	6
17	Collisions of electrons with hydrogen atoms with D ₂ and D ₂ ⁺ and collisions of electrons with hydrogen atoms I. Package outline and high energy code. Computer Physics Communications, 2014, 185, 2893-2902.	2.5	6
18	Collisions of electrons with hydrogen atoms I. Package outline and high energy code. Computer Physics Communications, 2014, 185, 2893-2902.	7.5	5

#	ARTICLE	IF	CITATIONS
19	Dissociative recombination by frame transformation to Siegert pseudostates: A comparison with a numerically solvable model. <i>Physical Review A</i> , 2018, 97, .	2.5	5
20	Dissociative attachment of low-energy electrons to vibrationally excited hydrogen molecules. <i>European Physical Journal D</i> , 2002, 52, 29-40.	0.4	4
21	Lowest autodetachment state of the water anion. <i>European Physical Journal D</i> , 2016, 70, 1.	1.3	4
22	Converged and consistent high-resolution low-energy electronâ€“hydrogen scattering. I. Data below threshold for applications in stellar physics. <i>Atomic Data and Nuclear Data Tables</i> , 2018, 119, 303-313.	2.4	4
23	Associative detachment in Li+Hâ€“ collisions. <i>European Physical Journal D</i> , 2018, 72, 1.	1.3	3
24	Comparison of the Chebyshev Method and the Generalized Crank-Nicholson Method for time Propagation in Quantum Mechanics. , 2010, , .		2
25	New version of hex-ecs, the B-spline implementation of exterior complex scaling method for solution of electronâ€“hydrogen scattering. <i>Computer Physics Communications</i> , 2016, 204, 216-217.	7.5	2
26	Giant structures in low-energy electronâ€“deuterium-iodide elastic scattering cross section. <i>Physical Review A</i> , 2007, 75, .	2.5	1
27	Resonant inelastic collisions of electrons with diatomic molecules. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012, 279, 71-75.	1.4	1
28	Time-dependent formulation of the two-dimensional model of resonant electron collisions with diatomic molecules and interpretation of the vibrational excitation cross sections. <i>Physical Review A</i> , 2017, 95, .	2.5	1
29	Reducing the dimensionality of grid based methods for electron-atom scattering calculations below ionization threshold. <i>Computer Physics Communications</i> , 2017, 213, 46-51.	7.5	1
30	Resonant collisions of electrons with O_2 via the lowest-lying σ^* state.	2.5	1
31	Long-lived states of molecular hydrogen anion. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	0
32	Efficient Numerical Solution of Coupled Radial Differential Equations in Multichannel Scattering Problems. , 2008, , .		0
33	Efficient Numerical Solution of Time-Dependent Multichannel One-Dimensional or Radial Problems In Quantum Mechanics. , 2009, , .		0
34	Recent developments in R-matrix applications to molecular processes. <i>Journal of Physics: Conference Series</i> , 2015, 635, 072058.	0.4	0