Karel Houfek

List of Publications by Year
in descending order

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34	343	840776 11	839539 18
papers	citations	h-index	g-index

34	34	34	295
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Vibrational excitation in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>e</mml:mi><mml:mo>+</mml:mo></mml:mrow><mml:mn> system: Nonlocal model of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">Îž</mml:mi><mml:mi mathvariant="normal">Î</mml:mi></mml:mrow></mml:math>	2.5	7
2	Vibronic Coupling through the Continuum in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>e</mml:mi><mml:mo>+</mml:mo><mml:mrow><mml:msub><mml:mrow><mml:mi>CO</mml:mi> System. Physical Review Letters, 2022, 129, .	7.8	11
3	Vibrational excitation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> via the lowest-lying <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msup><mml:mrow /><mml:mn>2</mml:mn></mml:msup><mml:msub><mml:mi mathvariant="normal">Î</mml:mi><mml:mi>g</	2.5	1
4	Electron-impact vibrational excitation of isocyanic acid HNCO. Physical Review A, 2020, 102, .	2.5	7
5	Associative detachment in Li+Hâ^’ collisions. European Physical Journal D, 2018, 72, 1.	1.3	3
6	Dissociative recombination by frame transformation to Siegert pseudostates: A comparison with a numerically solvable model. Physical Review A, 2018, 97, .	2.5	5
7	Converged and consistent high-resolution low-energy electronâ€“hydrogen scattering. I. Data below <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml5" display="inline" overflow="scroll" altimg="si5.gif"><mml:mi>n</mml:mi><mml:mo>=</mml:mo><mml:mn>4</mml:mn></mml:math> threshold for applications in stellar physics. Atomic Data and Nuclear Data Tables, 2018, 119, 303-313.	2.4	4
8	Resonances and Dissociative Electron Attachment in HNCO. Physical Review Letters, 2018, 121, 143402.	7.8	25
9	Time-dependent formulation of the two-dimensional model of resonant electron collisions with diatomic molecules and interpretation of the vibrational excitation cross sections. Physical Review A, 2017, 95, .	2.5	1
10	Role of electronic correlations in photoionization of NO₂ in the vicinity of the ²A₁/²B₂ conical intersection. Physical Chemistry Chemical Physics, 2017, 19, 19673-19682.	2.8	9
11	Reducing the dimensionality of grid based methods for electron-atom scattering calculations below ionization threshold. Computer Physics Communications, 2017, 213, 46-51.	7.5	1
12	Isotopic effects in the interaction of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mo>â^’</mml:mo></mml:msup></mml:math> with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">D</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">H</m	2.5	6
13	New version of hex-ecs, the B-spline implementation of exterior complex scaling method for solution of electronâ€“hydrogen scattering. Computer Physics Communications, 2016, 204, 216-217.	7.5	2
14	Lowest autodetachment state of the water anion. European Physical Journal D, 2016, 70, 1.	1.3	4
15	Recent developments in R-matrix applications to molecular processes. Journal of Physics: Conference Series, 2015, 635, 072058.	0.4	0
16	Interaction of Oâ^’ and H2 at low temperatures. Journal of Chemical Physics, 2015, 142, 014304.	3.0	12
17	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
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	Resonant inelastic collisions of electrons with diatomic molecules. Nuclear Instruments & Methods in Physics Research B, 2012, 279, 71-75.	1.4	1
20	Dissociative electron attachment and vibrational excitation of CF<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>Cl: Effect of two vibrational modes revisited. Physical Review A, 2011, 84, .	2.5	14
21	Electron scattering in HCl: An improved nonlocal resonance model. Physical Review A, 2010, 81, .	2.5	16
22	Comparison of the Chebyshev Method and the Generalized Crank-Nicholson Method for time Propagation in Quantum Mechanics. , 2010, , .		2
23	Efficient Numerical Solution of Time-Dependent Multichannel One-Dimensional or Radial Problems In Quantum Mechanics. , 2009, , .		0
24	On irregular oscillatory structures in resonant vibrational excitation cross-sections in diatomic molecules. Chemical Physics, 2008, 347, 250-256.	1.9	11
25	Probing the nonlocal approximation to resonant collisions of electrons with diatomic molecules. Physical Review A, 2008, 77, .	2.5	19
26	Efficient Numerical Solution of Coupled Radial Differential Equations in Multichannel Scattering Problems. , 2008, , .		0
27	Giant structures in low-energy electronâ€“deuterium-iodide elastic scattering cross section. Physical Review A, 2007, 75, .	2.5	1
28	Long-lived states of molecular hydrogen anion. AIP Conference Proceedings, 2007, , .	0.4	0
29	Numerically solvable model for resonant collisions of electrons with diatomic molecules. Physical Review A, 2006, 73, .	2.5	17
30	Dissociative electron attachment and vibrational excitation ofH2by low-energy electrons: Calculations based on an improved nonlocal resonance model. II. Vibrational excitation. Physical Review A, 2006, 73, .	2.5	37
31	Nonlocal model of dissociative electron attachment and vibrational excitation of NO. Physical Review A, 2005, 71, .	2.5	43
32	Dissociative electron attachment and vibrational excitation ofH2by low-energy electrons: Calculations based on an improved nonlocal resonance model. Physical Review A, 2004, 70, .	2.5	55
33	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
34	Dissociative attachment of low-energy electrons to vibrationally excited hydrogen molecules. European Physical Journal D, 2002, 52, 29-40.	0.4	4