Remigio Cabrera-Trujillo

List of Publications by Year
in descending order

102 papers	904 citations	516561 16 h-index	610775 24 g-index
104 all docs	104 docs citations	104 times ranked	453 citing authors

#	Article	IF	Citations
1	Physics		
2	Theoretical study of the formation of C18H and C18H2 molecules by low energy irradiation with atomic and molecular hydrogen. Radiation Physics and Chemistry, 2021, 179, 109166.	1.4	2
3	Confinement of an ultra-cold-matter wave packet near the delocalization threshold by a waveguide bend with two or more contact impurities. European Physical Journal D, 2021, 75, 1.	0.6	0
4	Analytical expression for the electronic stopping cross section of atomic gas targets for hydrogen projectiles. Physical Review A, 2021, 103, .	1.0	5
5	Dipole and generalized oscillator strengths-dependent electronic properties of helium atoms immersed in a plasma. European Physical Journal D, 2021, 75, 1.	0.6	3
6	Ionization of many-electron atoms by the action of two plasma models. Physical Review E, 2021, 103, 043202.	0.8	10
7	Rotational and vibrational effects on the energy loss of hydrogen colliding on glycine at low irradiation energies. Radiation Physics and Chemistry, 2020, 166, 108513.	1.4	2
8	On the virial theorem for a particle in a box: Accounting for Cauchy's boundary condition. American Journal of Physics, 2020, 88, 1103-1108.	0.3	2
9	Interatomic Coulombic decay of a Li dimer in a coupled electron and nuclear dynamics approach. Physical Review A, 2020, 102, .	1.0	4
10	Acceptance-angle effects on the charge transfer and energy-loss cross sections for collisions of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi mathvariant="normal">C</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn><mml:mo>+</mml:mo></mml:mrow></mml:msu with atomic hydrogen. Physical Review A, 2020, 101, .	1.0	2
11	High pressure effects on the excitation spectra and dipole properties of Li, Be+, and B2+ atoms under confinement. Matter and Radiation at Extremes, 2020, 5, .	1.5	7
12	Calculation of the electronic, nuclear, rotational, and vibrational stopping cross sections for H atoms irradiation on H₂, N₂ and O₂ gas targets at low collision energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 135203.	0.6	1
13	A fully manipulable damped driven harmonic oscillator using optical levitation. American Journal of Physics, 2020, 88, 490-498.	0.3	5
14	Visualization of spherical aberration using an optically levitated droplet as a light source. Optics Express, 2020, 28, 30410.	1.7	1
15	Bound and continuum state contributions to dipole oscillator strength sum rules: Total and orbital mean excitation energies for cations of C, F, Si, and Cl. Advances in Quantum Chemistry, 2019, 80, 127-146.	0.4	3
16	Bond rearrangement during Coulomb explosion of water molecules. Physical Review A, 2019, 99, .	1.0	6
17	Dipole sum rules of a hydrogen atom in a Debye-HÃ¼ckel plasma. European Physical Journal D, 2019, 73, 1.	0.6	4
18	Molecular dynamics simulations for hydrogen adsorption in low energy collisions with carbon and boron-nitride nanotubes. Journal of Applied Physics, 2019, 125, 094506.	1.1	3

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19	Electronic stopping cross section for protons incident on biological and biomedical materials within a FSGO quantum chemistry description. Radiation Physics and Chemistry, 2019, 156, 150-158.	1.4	7
20	Low-energy hydrogen uptake by small-cage Cn and Cn-1B fullerenes. Carbon, 2018, 134, 189-198.	5.4	17
21	Effects of the s- and p-orbital target symmetry on the generalized oscillator strength and its role on the electronic stopping cross-section: preliminary results within a harmonic oscillator approach. Radiation Effects and Defects in Solids, 2018, 173, 85-92.	0.4	0
22	Derived properties from the dipole and generalized oscillator strength distributions of an endohedral confined hydrogen atom. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 055203.	0.6	8
23	Dipole and generalized oscillator strength derived electronic properties of an endohedral hydrogen atom embedded in a Debye-HÃ¼ckel plasma. Matter and Radiation at Extremes, 2018, 3, 227-242.	1.5	17
24	Dipole Sum Rules of an Endohedral Confined Hydrogen Atom: Effects of the Cavity Discontinuity. Advances in Quantum Chemistry, 2018, , 295-315.	0.4	3
25	Lindhard's polarization parameter and atomic sum rules in the local plasma approximation: a case for excited states. Radiation Effects and Defects in Solids, 2017, 172, 100-107.	0.4	0
26	Sum rules and the role of pressure on the excitation spectrum of a confined hydrogen atom by a spherical cavity. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 155006.	0.6	4
27	Pressure effects on the dipole oscillator strength, polarizability, and mean excitation energy of a hydrogen impurity under cylindrical confinement: off-center axis effect. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 135002.	0.6	3
28	Many-electron atom confinement by a penetrable planar boundary. Radiation Effects and Defects in Solids, 2016, 171, 123-134.	0.4	4
29	Total and state-to-state electron capture and excitation cross-sections for Li⁺, Be${}^{2+},$ and ${{m{B}}}^{3+}$ colliding with ${m{H}}(1;s)$ at low-to-intermediate energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 015202.	0.6	1
30	Confinement effects on the electron transfer cross section: a study of He²⁺colliding on atomic H. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 225203.	0.6	0
31	On the universal scaling in the electronic stopping cross section for heavy ion projectiles. Radiation Effects and Defects in Solids, 2016, 171, 146-153.	0.4	3
32	Single electron capture cross sections for protons colliding with neon and methane targets: effects of the initial vibrational state of CH4. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 035201.	0.6	1
33	Energy-level structure of the hydrogen atom confined by a penetrable cylindrical cavity. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 015005.	0.6	8
34	Multiresolution Approach for Laser-Modified Collisions of Atoms and Ions. Advances in Quantum Chemistry, 2015, 71, 353-371.	0.4	2
35	Large increase in the electron capture and excitation cross sections for Li+colliding with atomic H under UV laser assistance. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 135202.	0.6	3
36	Confinement effects on an ultra-cold matter wave-packet by a square well impurity near the de-localization threshold: analytic solutions, scaling, and width properties. European Physical Journal D, 2015, 69, 1.	0.6	2

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37	On a Hyperbolic Solution to the Nonlinear SchrÃ¶dinger Equation for a Square Well Potential Coupled to a Contact Impurity at the Delocalization Threshold. Advances in Quantum Chemistry, 2015, , 341-352.	0.4	0
38	Pulse duration effects on laser-assisted electron transfer cross section for He2+ ions colliding with atomic hydrogen. European Physical Journal D, 2014, 68, 1.	0.6	7
39	Accurate evaluation of pressure effects on the electronic stopping cross section and mean excitation energy of atomic hydrogen beyond the Bethe approximation. Nuclear Instruments & Methods in Physics Research B, 2014, 320, 51-56.	0.6	4
40	Comparison of laser-assisted charge transfer of symmetric and asymmetric colliding systems. Journal of Physics: Conference Series, 2014, 512, 012033.	0.3	2
41	Universal scaling behavior of molecular electronic stopping cross section for protons colliding with small molecules and nucleobases. Nuclear Instruments & Methods in Physics Research B, 2013, 313, 5-13.	0.6	4
42	Confinement approach to pressure effects on the dipole and the generalized oscillator strength of atomic hydrogen. Physical Review A, 2013, 87, .	1.0	42
43	Isotope effect for associative detachment:<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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55	Differential, partial and total electron capture cross sections in p-Ar collisions. Journal of Physics: Conference Series, 2009, 194, 082030.	0.3	0
56	Cross sections forH+and H atoms colliding with Li in the low-keV-energy region. Physical Review A, 2008, 78, .	1.0	15
57	Collision-induced fragmentation cross sections ofCO2+on He: Experiment and theory. Physical Review A, 2008, 78, .	1.0	7
58	Ground-state energy shift of He close to a surface and its relation with the scattering potential: A confinement model. Physical Review A, 2008, 78, .	1.0	9
59	Enormous Isotope Effects on Charge Transfer in Slow Collisions of He[sup 2+] with H, D, and T. AIP Conference Proceedings, 2007, , .	0.3	0
60	Ground State Energy Shift of He and He[sup +] Close to a Surface: A Confinement Model. AIP Conference Proceedings, 2007, , .	0.3	2
61	Cross Sections for C[sup +] and O[sup +] Production in the Collision of CO[sub 2][sup +] Ions with Atomic He. AIP Conference Proceedings, 2007, , .	0.3	0
62	Charge Exchange and Fragmentation in Slow Collisions of He2+ with Water Molecules. Advances in Quantum Chemistry, 2007, , 149-170.	0.4	9
63	Water-molecule fragmentation induced by charge exchange in slow collisions withHe+andHe2+ions in the keV-energy region. Physical Review A, 2007, 75, .	1.0	32
64	Strong Isotope Effects on the Charge Transfer in Slow Collisions ofHe2+with Atomic Hydrogen, Deuterium, and Tritium. Physical Review Letters, 2007, 99, 103201.	2.9	29
65	Theoretical investigation of energy deposition and electron capture cross-sections for helium ion impact on formaldehyde. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 118-120.	0.6	2
66	Preference for breaking the Oâ€“H bond over the Oâ€“D bond following HDO ionization by fast ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 1701-1710.	0.6	21
67	Laser-assisted charge transfer inHe2++Hcollisions. Physical Review A, 2006, 73, .	1.0	25
68	From the Orbital Implementation of the Kinetic Theory to the Polarization Propagator Method in the Study of Energy Deposition Problems. Advances in Quantum Chemistry, 2005, , 335-367.	0.4	1
69	Comparison of shell corrections in the Bohr and Bethe formulations of stopping power. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 144-149.	0.6	4
70	Orientational Effects in Energy Deposition by Protons in Water. Advances in Quantum Chemistry, 2005, 48, 47-57.	0.4	11
71	Stopping of swift antiprotons by hydrogen atoms and the Barkas correction. Physical Review A, 2005, 71, .	1.0	7
72	Prediction of the energy dependence of molecular fragmentation cross sections for collisions of swift protons with ethane and acetylene. Physical Review A, 2005, 71, .	1.0	10

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73	Resonant charge transfer between H+and H from 1 to 5000 eV. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 4733-4747.	0.6	15
74	Absolute differential and total cross sections for direct and charge-transfer scattering of keV protons byO2. Physical Review A, 2004, 70, .	1.0	14
75	Application of the END Theory to the H + D2â† HD + D Reactionâ€. Journal of Physical Chemistry A, 2004, 108, 8935-8940.	1.1	10
76	Calculation of Cross Sections in Electron-Nuclear Dynamics. Advances in Quantum Chemistry, 2004, 47, 253-274.	0.4	12
77	Molecular Stopping Powers from the Target Oscillator Strength Distribution. Advances in Quantum Chemistry, 2004, 46, 121-151.	0.4	7
78	Dynamical Processes in Stopping Cross Sections. Advances in Quantum Chemistry, 2004, 45, 99-124.	0.4	5
79	The Theory and Computation of Energy Deposition Properties. Advances in Quantum Chemistry, 2004, , 1-5.	0.4	3
80	Energy loss studies of protons colliding with ethane: preliminary results. Journal of Electron Spectroscopy and Related Phenomena, 2003, 129, 303-308.	0.8	8
81	Case for projectile kinetic energy gain in stopping power studies. International Journal of Quantum Chemistry, 2003, 94, 215-221.	1.0	5
82	Explanation of the observed trend in the mean excitation energy of a target as determined using several projectiles. Physical Review A, 2003, 68, .	1.0	10
83	Why does the maximum in the stopping cross section for protons occur at approximately 100 keV most of the time?. AIP Conference Proceedings, 2003, , .	0.3	5
84	Molecular target and projectile angular scattering effects in stopping power and charge exchange at low-to-intermediate projectile energies. Physical Review A, 2002, 65, .	1.0	9
85	Theoretical and experimental studies of theH+â^'N2system: Differential cross sections for direct and charge-transfer scattering at kilo-electron-volt energies. Physical Review A, 2002, 66, .	1.0	21
86	Stopping cross sections forN4+â†'Hat low projectile velocity. Physical Review A, 2002, 66, .	1.0	6
87	Dynamics of proton-acetylene collisions at 30 eV. Journal of Chemical Physics, 2002, 117, 1103-1108.	1.2	20
88	Trajectory and molecular binding effects in stopping cross section for hydrogen beams on H2. Journal of Chemical Physics, 2002, 116, 2783-2793.	1.2	26
89	Stopping cross section and charge exchange study on the He[sup +]â†'Ne system. AIP Conference Proceedings, 2001, , .	0.3	4
90	Effect of shape on molecular directional Compton profiles. Computational and Theoretical Chemistry, 2000, 527, 157-163.	1.5	4

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91	Impact parameter dependence of electronic and nuclear energy loss of swift ions: H+â†' He and H+â†' H. Nuclear Instruments & Methods in Physics Research B, 2000, 168, 484-492.	0.6	17
92	Stopping cross section in the low- to intermediate-energy range: Study of proton and hydrogen atom collisions with atomic N, O, and F. Physical Review A, 2000, 62, .	1.0	32
93	Direct differential-cross-section calculations for ion-atom and atom-atom collisions in the keV range. Physical Review A, 2000, 61, .	1.0	40
94	Charge Exchange and Threshold Effect in the Energy Loss of Slow Projectiles. Physical Review Letters, 2000, 84, 5300-5303.	2.9	46
95	Stopping power in the independent-particle model: Harmonic oscillator results. Physical Review A, 1999, 60, 3044-3052.	1.0	12
96	Projectile isotope effects on electronic stopping power: Harmonic Oscillator approach. Nuclear Instruments & Methods in Physics Research B, 1999, 149, 228-232.	0.6	7
97	The Bethe Sum Rule and Basis Set Selection in the Calculation of Generalized Oscillator Strengths. Advances in Quantum Chemistry, 1999, , 175-192.	0.4	8
98	Oscillator strength sum rules with an external electromagnetic field. Physical Review A, 1998, 57, 3115-3118.	1.0	2
99	Bethe theory of stopping incorporating electronic excitations of partially stripped projectiles. Physical Review A, 1997, 55, 2864-2872.	1.0	44
100	Bond stopping cross sections for protons incident on molecular targets within the OLPA/FSGO implementation of the kinetic theory. Nuclear Instruments & Methods in Physics Research B, 1994, 93, 166-174.	0.6	17
101	Firsov approach to chemical bond effects on the low-energy electronic stopping power of heavy ions. Nuclear Instruments & Methods in Physics Research B, 1993, 83, 5-14.	0.6	8
102	Chemical bond effects on the low-energy electronic stopping power of Li and He ions on saturated alcohols, ethers and amines. Nuclear Instruments & Methods in Physics Research B, 1993, 80-81, 20-23.	0.6	5