

# Remigio Cabrera-Trujillo

## List of Publications by Year in descending order

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103  
papers

904  
citations

516710

16  
h-index

610901

24  
g-index

104  
all docs

104  
docs citations

104  
times ranked

453  
citing authors

#	ARTICLE	IF	CITATIONS
1	Charge Exchange and Threshold Effect in the Energy Loss of Slow Projectiles. Physical Review Letters, 2000, 84, 5300-5303.	7.8	46
2	Bethe theory of stopping incorporating electronic excitations of partially stripped projectiles. Physical Review A, 1997, 55, 2864-2872.	2.5	44
3	Confinement approach to pressure effects on the dipole and the generalized oscillator strength of atomic hydrogen. Physical Review A, 2013, 87, .	2.5	42
4	Direct differential-cross-section calculations for ion-atom and atom-atom collisions in the keV range. Physical Review A, 2000, 61, .	2.5	40
5	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, .	2.5	32
6	Water-molecule fragmentation induced by charge exchange in slow collisions with He <sup>+</sup> and He <sup>2+</sup> ions in the keV-energy region. Physical Review A, 2007, 75, .	2.5	32
7	Strong Isotope Effects on the Charge Transfer in Slow Collisions of He <sup>2+</sup> with Atomic Hydrogen, Deuterium, and Tritium. Physical Review Letters, 2007, 99, 103201.	7.8	29
8	Trajectory and molecular binding effects in stopping cross section for hydrogen beams on H <sub>2</sub> . Journal of Chemical Physics, 2002, 116, 2783-2793.	3.0	26
9	Laser-assisted charge transfer in He <sup>2+</sup> +H collisions. Physical Review A, 2006, 73, .	2.5	25
10	Isotope effect for associative detachment: <math xmlns:mml="http://www.w3.org/1998/Math/MathML">		

#	ARTICLE	IF	CITATIONS
19	Resonant charge transfer between H <sup>+</sup> and H from 1 to 5000 eV. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 4733-4747.	1.5	15
20	Cross sections for H <sup>+</sup> and H atoms colliding with Li in the low-keV-energy region. Physical Review A, 2008, 78, .	2.5	15
21	Absolute differential and total cross sections for direct and charge-transfer scattering of keV protons by O <sub>2</sub> . Physical Review A, 2004, 70, .	2.5	14
22	Mass scaling laws due to isotopic effects in the energy loss of He <sup>n</sup> colliding with H, D, and T. Physical Review A, 2011, 83, .	2.5	13
23	Stopping power in the independent-particle model: Harmonic oscillator results. Physical Review A, 1999, 60, 3044-3052.	2.5	12
24	Calculation of Cross Sections in Electron-Nuclear Dynamics. Advances in Quantum Chemistry, 2004, 47, 253-274.	0.8	12
25	Orientational Effects in Energy Deposition by Protons in Water. Advances in Quantum Chemistry, 2005, 48, 47-57.	0.8	11
26	Explanation of the observed trend in the mean excitation energy of a target as determined using several projectiles. Physical Review A, 2003, 68, .	2.5	10
27	Application of the END Theory to the H + D <sub>2</sub> <sup>+</sup> HD + D Reaction. Journal of Physical Chemistry A, 2004, 108, 8935-8940.	2.5	10
28	Prediction of the energy dependence of molecular fragmentation cross sections for collisions of swift protons with ethane and acetylene. Physical Review A, 2005, 71, .	2.5	10
29	Ionization of many-electron atoms by the action of two plasma models. Physical Review E, 2021, 103, 043202.	2.1	10
30	Molecular target and projectile angular scattering effects in stopping power and charge exchange at low-to-intermediate projectile energies. Physical Review A, 2002, 65, .	2.5	9
31	Charge Exchange and Fragmentation in Slow Collisions of He <sup>2+</sup> with Water Molecules. Advances in Quantum Chemistry, 2007, , 149-170.	0.8	9
32	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, .	2.5	9
33	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.	1.4	8
34	The Bethe Sum Rule and Basis Set Selection in the Calculation of Generalized Oscillator Strengths. Advances in Quantum Chemistry, 1999, , 175-192.	0.8	8
35	Energy loss studies of protons colliding with ethane: preliminary results. Journal of Electron Spectroscopy and Related Phenomena, 2003, 129, 303-308.	1.7	8
36	Stueckelberg oscillations in the charge transfer into the $n = 2$ and $n = 3$ shells of He <sup>2+</sup> on collision with H. International Journal of Quantum Chemistry, 2009, 109, 3063-3074.	2.0	8

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37	Stopping power of molecules for fast ions. <i>Molecular Physics</i> , 2010, 108, 2891-2897.	1.7	8
38	Energy-level structure of the hydrogen atom confined by a penetrable cylindrical cavity. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 015005.	1.5	8
39	Derived properties from the dipole and generalized oscillator strength distributions of an endohedral confined hydrogen atom. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 055203.	1.5	8
40	Projectile isotope effects on electronic stopping power: Harmonic Oscillator approach. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1999, 149, 228-232.	1.4	7
41	Molecular Stopping Powers from the Target Oscillator Strength Distribution. <i>Advances in Quantum Chemistry</i> , 2004, 46, 121-151.	0.8	7
42	Stopping of swift antiprotons by hydrogen atoms and the Barkas correction. <i>Physical Review A</i> , 2005, 71, .	2.5	7
43	Collision-induced fragmentation cross sections of CO <sub>2</sub> +on He: Experiment and theory. <i>Physical Review A</i> , 2008, 78, .	2.5	7
44	Pulse duration effects on laser-assisted electron transfer cross section for He <sup>2+</sup> ions colliding with atomic hydrogen. <i>European Physical Journal D</i> , 2014, 68, 1.	1.3	7
45	Electronic stopping cross section for protons incident on biological and biomedical materials within a FSGO quantum chemistry description. <i>Radiation Physics and Chemistry</i> , 2019, 156, 150-158.	2.8	7
46	High pressure effects on the excitation spectra and dipole properties of Li, Be <sup>+</sup> , and B <sup>2+</sup> atoms under confinement. <i>Matter and Radiation at Extremes</i> , 2020, 5, .	3.9	7
47	Stopping cross sections for N <sup>4+</sup> at low projectile velocity. <i>Physical Review A</i> , 2002, 66, .	2.5	6
48	Bond rearrangement during Coulomb explosion of water molecules. <i>Physical Review A</i> , 2019, 99, .	2.5	6
49	Chemical bond effects on the low-energy electronic stopping power of Li and He ions on saturated alcohols, ethers and amines. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1993, 80-81, 20-23.	1.4	5
50	Case for projectile kinetic energy gain in stopping power studies. <i>International Journal of Quantum Chemistry</i> , 2003, 94, 215-221.	2.0	5
51	Why does the maximum in the stopping cross section for protons occur at approximately 100 keV most of the time?. <i>AIP Conference Proceedings</i> , 2003, , .	0.4	5
52	Dynamical Processes in Stopping Cross Sections. <i>Advances in Quantum Chemistry</i> , 2004, 45, 99-124.	0.8	5
53	Laser and isotope effects in charge transfer processes in atomic collisions. <i>Radiation Effects and Defects in Solids</i> , 2009, 164, 402-408.	1.2	5
54	Differential, state-to-state, and total-charge-transfer cross sections for H <sup>+</sup> colliding with Ar. <i>Physical Review A</i> , 2009, 79, .	2.5	5

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55	capture cross sections for $Li$ colliding on H and $Li$ colliding on H	2.5	5
56	Analytical expression for the electronic stopping cross section of atomic gas targets for hydrogen projectiles. <i>Physical Review A</i> , 2021, 103, .	2.5	5
57	A fully manipulable damped driven harmonic oscillator using optical levitation. <i>American Journal of Physics</i> , 2020, 88, 490-498.	0.7	5
58	Effect of shape on molecular directional Compton profiles. <i>Computational and Theoretical Chemistry</i> , 2000, 527, 157-163.	1.5	4
59	Stopping cross section and charge exchange study on the $He^{+}$ Ne system. <i>AIP Conference Proceedings</i> , 2001, , .	0.4	4
60	Comparison of shell corrections in the Bohr and Bethe formulations of stopping power. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2005, 241, 144-149.	1.4	4
61	Hydrogen and helium charge exchange collisions at kiloelectronvolt energies: an electron nuclear dynamics review. <i>Plasma Sources Science and Technology</i> , 2010, 19, 034006.	3.1	4
62	Universal scaling behavior of molecular electronic stopping cross section for protons colliding with small molecules and nucleobases. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2013, 313, 5-13.	1.4	4
63	Accurate evaluation of pressure effects on the electronic stopping cross section and mean excitation energy of atomic hydrogen beyond the Bethe approximation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2014, 320, 51-56.	1.4	4
64	Many-electron atom confinement by a penetrable planar boundary. <i>Radiation Effects and Defects in Solids</i> , 2016, 171, 123-134.	1.2	4
65	Sum rules and the role of pressure on the excitation spectrum of a confined hydrogen atom by a spherical cavity. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2017, 50, 155006.	1.5	4
66	Dipole sum rules of a hydrogen atom in a Debye-Hückel plasma. <i>European Physical Journal D</i> , 2019, 73, 1.	1.3	4
67	Interatomic Coulombic decay of a Li dimer in a coupled electron and nuclear dynamics approach. <i>Physical Review A</i> , 2020, 102, .	2.5	4
68	Numerical study of laser-assisted transmission and reflection coefficients of a wave packet by an attractive impurity. <i>Radiation Effects and Defects in Solids</i> , 2012, 167, 464-477.	1.2	3
69	Large increase in the electron capture and excitation cross sections for Li <sup>+</sup> colliding with atomic H under UV laser assistance. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 135202.	1.5	3
70	On the universal scaling in the electronic stopping cross section for heavy ion projectiles. <i>Radiation Effects and Defects in Solids</i> , 2016, 171, 146-153.	1.2	3
71	Pressure effects on the dipole oscillator strength, polarizability, and mean excitation energy of a hydrogen impurity under cylindrical confinement: off-center axis effect. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2017, 50, 135002.	1.5	3
72	Dipole Sum Rules of an Endohedral Confined Hydrogen Atom: Effects of the Cavity Discontinuity. <i>Advances in Quantum Chemistry</i> , 2018, , 295-315.	0.8	3

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73	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. <i>Advances in Quantum Chemistry</i> , 2019, 80, 127-146.	0.8	3
74	Molecular dynamics simulations for hydrogen adsorption in low energy collisions with carbon and boron-nitride nanotubes. <i>Journal of Applied Physics</i> , 2019, 125, 094506.	2.5	3
75	Dipole and generalized oscillator strengths-dependent electronic properties of helium atoms immersed in a plasma. <i>European Physical Journal D</i> , 2021, 75, 1.	1.3	3
76	The Theory and Computation of Energy Deposition Properties. <i>Advances in Quantum Chemistry</i> , 2004, , 1-5.	0.8	3
77	Oscillator strength sum rules with an external electromagnetic field. <i>Physical Review A</i> , 1998, 57, 3115-3118.	2.5	2
78	Ground State Energy Shift of He and He[ <sup>+</sup> ] Close to a Surface: A Confinement Model. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	2
79	Theoretical investigation of energy deposition and electron capture cross-sections for helium ion impact on formaldehyde. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2007, 261, 118-120.	1.4	2
80	Comparison of laser-assisted charge transfer of symmetric and asymmetric colliding systems. <i>Journal of Physics: Conference Series</i> , 2014, 512, 012033.	0.4	2
81	Multiresolution Approach for Laser-Modified Collisions of Atoms and Ions. <i>Advances in Quantum Chemistry</i> , 2015, 71, 353-371.	0.8	2
82	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. <i>European Physical Journal D</i> , 2015, 69, 1.	1.3	2
83	Rotational and vibrational effects on the energy loss of hydrogen colliding on glycine at low irradiation energies. <i>Radiation Physics and Chemistry</i> , 2020, 166, 108513.	2.8	2
84	On the virial theorem for a particle in a box: Accounting for Cauchy's boundary condition. <i>American Journal of Physics</i> , 2020, 88, 1103-1108.	0.7	2
85	Acceptance-angle effects on the charge transfer and energy-loss cross sections for collisions of $C$ with atomic hydrogen. <i>Physical Review A</i> , 2020, 101, .	2.5	2
86	Theoretical study of the formation of C <sub>18</sub> H and C <sub>18</sub> H <sub>2</sub> molecules by low energy irradiation with atomic and molecular hydrogen. <i>Radiation Physics and Chemistry</i> , 2021, 179, 109166.	2.8	2
87	From the Orbital Implementation of the Kinetic Theory to the Polarization Propagator Method in the Study of Energy Deposition Problems. <i>Advances in Quantum Chemistry</i> , 2005, , 335-367.	0.8	1
88	Protonium formation in collisions of antiprotons with atomic and molecular hydrogen: a semiclassical study. <i>Radiation Effects and Defects in Solids</i> , 2011, 166, 346-356.	1.2	1
89	Total and state-to-state electron capture and excitation cross-sections for Li <sup>+</sup> , Be <sup>2+</sup> , and B <sup>3+</sup> colliding with H(1s) at low-to-intermediate energies. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 015202.	1.5	1
90	Single electron capture cross sections for protons colliding with neon and methane targets: effects of the initial vibrational state of CH <sub>4</sub> . <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 035201.	1.5	1

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91	Calculation of the electronic, nuclear, rotational, and vibrational stopping cross sections for H atoms irradiation on H <sub>2</sub> , N <sub>2</sub> and O <sub>2</sub> gas targets at low collision energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 135203.	1.5	1
92	Visualization of spherical aberration using an optically levitated droplet as a light source. Optics Express, 2020, 28, 30410.	3.4	1
93	HeH <sup>+</sup> produced by an excited Li(1s) ion in collisions with H <sub>2</sub> . Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 135203.		
94	First international meeting on recent developments in the study of radiation effects in matter: A Festschrift dedicated to Lewis T. Chadderton upon his fifty years in physics. Radiation Effects and Defects in Solids, 2007, 162, 463-466.	1.2	0
95	Enormous Isotope Effects on Charge Transfer in Slow Collisions of He <sup>2+</sup> with H, D, and T. AIP Conference Proceedings, 2007, . .	0.4	0
96	Cross Sections for C <sup>+</sup> and O <sup>+</sup> Production in the Collision of CO <sub>2</sub> <sup>+</sup> Ions with Atomic He. AIP Conference Proceedings, 2007, . .	0.4	0
97	Double electron capture cross-sections by protons in collisions with He. Radiation Effects and Defects in Solids, 2009, 164, 738-747.	1.2	0
98	Differential, partial and total electron capture cross sections in p-Ar collisions. Journal of Physics: Conference Series, 2009, 194, 082030.	0.4	0
99	On a Hyperbolic Solution to the Nonlinear Schrödinger Equation for a Square Well Potential Coupled to a Contact Impurity at the Delocalization Threshold. Advances in Quantum Chemistry, 2015, , 341-352.	0.8	0
100	Confinement effects on the electron transfer cross section: a study of He <sup>2+</sup> colliding on atomic H. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 225203.	1.5	0
101	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.	1.2	0
102	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.	1.2	0
103	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.	1.3	0