Mrcio T Do N Varella

List of Publications by Citations

101 papers	1,425 citations	21 h-index	31 g-index
106 ext. papers	1,559 ext. citations	2.9 avg, IF	4.47 L-index

#	Paper	IF	Citations
101	Recent advances in the application of the Schwinger multichannel method with pseudopotentials to electron-molecule collisions. *European Physical Journal D*, **2015**, 69, 1	1.3	86
100	Low-energy electron scattering by H2O, H2S, H2Se, and H2Te. *Journal of Chemical Physics*, **1999**, 111, 6396-6406	3.9	58
99	Low-energy electron collisions with glycine. *Journal of Chemical Physics*, **2012**, 136, 084307	3.9	48
98	Progress with the Schwinger multichannel method in positron□olecule scattering. *Nuclear Instruments & Methods in Physics Research B*, **2000**, 171, 33-46	1.2	44
97	Low-energy electron scattering by cellulose and hemicellulose components. *Physical Chemistry Chemical Physics*, **2013**, 15, 1682-9	3.6	43
96	Electron collisions with phenol: Total, integral, differential, and momentum transfer cross sections and the role of multichannel coupling effects on the elastic channel. *Journal of Chemical Physics*, **2015**, 142, 104304	3.9	39
95	Shape resonance spectra of uracil, 5-fluorouracil, and 5-chlorouracil. *Journal of Chemical Physics*, **2014**, 140, 024317	3.9	36
94	Low-energy electron scattering by CH3F, CH2F2, CHF3, and CF4. *Physical Review A*, **2002**, 65,	2.6	34
93	Cross sections for rotational excitations of NH3, PH3, AsH3, and SbH3 by electron impact. *Journal of Chemical Physics*, **1999**, 110, 2452-2464	3.9	33
92	An experimental and theoretical investigation into the excited electronic states of phenol. *Journal of Chemical Physics*, **2014**, 141, 074314	3.9	32
91	Positron scattering from methane. *Physical Review A*, **2012**, 85,	2.6	28
90	Elastic scattering of slow electrons by n-propanol and n-butanol. *Physical Review A*, **2008**, 78,	2.6	28
89	Electronic excitation of N2 by positron impact. *Physical Review A*, **2004**, 69,	2.6	27
88	Electron scattering by biomass molecular fragments: useful data for plasma applications?. *European Physical Journal D*, **2016**, 70, 1	1.3	27
87	Calculation of positron binding energies of amino acids with the any-particle molecular-orbital approach. *Physical Review A*, **2014**, 89,	2.6	26
86	Calculation of positron binding energies using the generalized any particle propagator theory. *Journal of Chemical Physics*, **2014**, 141, 114103	3.9	26
85	The Schwinger multichannel method (SMC) calculations for Zeff were off by a factor of Z. *Nuclear Instruments & Methods in Physics Research B*, **2002**, 192, 225-237	1.2	25

84	Elastic positron scattering by C2H2: Differential cross sections and virtual state formation. *Physical Review A*, **2003**, 68,	2.6	25
83	Shape resonance spectra of lignin subunits. *Physical Review A*, **2012**, 86,	2.6	24
82	Differential cross sections for electron impact excitation of the electronic bands of phenol. *Journal of Chemical Physics*, **2015**, 142, 104305	3.9	23
81	Low-energy electron scattering by CF4, CCl4, SiCl4, SiBr4, and SiI4. *Physical Review A*, **1999**, 60, 3684-3693	2.6	22
80	An experimental and theoretical investigation into positron and electron scattering from formaldehyde. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2011**, 44, 195202	1.3	21
79	Positron impact electronic excitation of N2. *Nuclear Instruments & Methods in Physics Research B*, **2004**, 221, 69-75	1.2	21
78	Total electron scattering cross sections from para-benzoquinone in the energy range 1-200 eV. *Physical Chemistry Chemical Physics*, **2018**, 20, 22368-22378	3.6	20
77	Electron collisions with the HCOOH□□(H2O)n complexes (n = 1, 2) in liquid phase: the influence of microsolvation on the □ resonance of formic acid. *Journal of Chemical Physics*, **2013**, 138, 174307	3.9	20
76	Low-energy electron collisions with pyrrole. *Journal of Chemical Physics*, **2010**, 132, 204301	3.9	20
75	The electron-furfural scattering dynamics for 63 energetically open electronic states. *Journal of Chemical Physics*, **2016**, 144, 124310	3.9	19
74	Electronic excitation of furfural as probed by high-resolution vacuum ultraviolet spectroscopy, electron energy loss spectroscopy, and ab initio calculations. *Journal of Chemical Physics*, **2015**, 143, 144308	3.9	18
73	Near-threshold vibrational excitation of H2 by positron impact: A projection-operator approach. *Physical Review A*, **2007**, 76,	2.6	18
72	Similarities and differences in e□□olecule scattering: Applications of the Schwinger multichannel method. *Nuclear Instruments & Methods in Physics Research B*, **2006**, 247, 13-19	1.2	18
71	Negative ion states of 5-bromouracil and 5-iodouracil. *Physical Chemistry Chemical Physics*, **2015**, 17, 1727-38	3.6	17
70	Anion states and fragmentation of 2-chloroadenine upon low-energy electron collisions. *Physical Chemistry Chemical Physics*, **2015**, 17, 28958-65	3.6	17
69	Electron driven reactions in sulphur containing analogues of uracil: the case of 2-thiouracil. *Physical Chemistry Chemical Physics*, **2014**, 16, 25054-61	3.6	17
68	Feshbach projection operator approach to positron annihilation. *Physical Review A*, **2009**, 80,	2.6	17
67	Electron collisions with ethylene: The role of multichannel-coupling effects. *Physical Review A*, **2014**, 90,	2.6	15

66	Integral elastic, electronic-state, ionization, and total cross sections for electron scattering with furfural. *Journal of Chemical Physics*, **2016**, 144, 144303	3.9	15
65	Multimode vibrational couplings in resonant positron annihilation. *Physical Review Letters*, **2011**, 107, 103201	7.4	14
64	Positron scattering from the cyclic ethers oxirane, 1,4-dioxane, and tetrahydropyran. *Journal of Chemical Physics*, **2012**, 136, 124305	3.9	14
63	Time-resolved photoelectron spectroscopy of proton transfer in the ground state of chloromalonaldehyde: wave-packet dynamics on effective potential surfaces of reduced dimensionality. *Journal of Chemical Physics*, **2006**, 124, 154302	3.9	14
62	Elastic and rotationally inelastic cross sections for low-energy electron scattering by SO2molecules. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **1999**, 32, 5523-5538	1.3	14
61	How does methylation suppress the electron-induced decomposition of 1-methyl-nitroimidazoles?. *Journal of Chemical Physics*, **2017**, 147, 164310	3.9	13
60	Communication: Transient anion states of phenol(H2O)n (n = 1, 2) complexes: search for microsolvation signatures. *Journal of Chemical Physics*, **2014**, 141, 051105	3.9	13
59	Real-time observation of intramolecular proton transfer in the electronic ground state of chloromalonaldehyde: an ab initio study of time-resolved photoelectron spectra. *Journal of Chemical Physics*, **2007**, 126, 054303	3.9	13
58	Binding Matter with Antimatter: The Covalent Positron Bond. *Angewandte Chemie - International Edition*, **2018**, 57, 8859-8864	16.4	13
57	An experimental and theoretical investigation into the electronically excited states of para-benzoquinone. *Journal of Chemical Physics*, **2017**, 146, 184303	3.9	12
56	Positron and electron collisions with nitrous oxide: Measured and calculated cross sections. *Physical Review A*, **2013**, 88,	2.6	12
55	Intermediate energy electron impact excitation of composite vibrational modes in phenol. *Journal of Chemical Physics*, **2015**, 142, 194302	3.9	11
54	Elastic scattering of slow electrons by n-pentanol alcohol. *European Physical Journal D*, **2014**, 68, 1	1.3	11
53	Low-energy electron collisions with thiophene. *Journal of Chemical Physics*, **2013**, 138, 194306	3.9	11
52	Theoretical and experimental differential cross sections for electron impact excitation of the electronic bands of furfural. *Journal of Chemical Physics*, **2016**, 144, 124309	3.9	11
51	Elastic scattering and vibrational excitation for electron impact on para-benzoquinone. *Journal of Chemical Physics*, **2017**, 147, 244304	3.9	10
50	Positron collisions with ethene. *Physical Review A*, **2012**, 86,	2.6	10
49	Cross sections for positron scattering from ethane. *Physical Review A*, **2013**, 87,	2.6	10

48	Near threshold vibrational excitation of molecules by positron impact: A projection operator approach. *Nuclear Instruments & Methods in Physics Research B*, **2008**, 266, 435-440	1.2	10
47	An investigation for elastic and electronically inelastic electron scattering from -benzoquinone. *Journal of Chemical Physics*, **2018**, 149, 174308	3.9	10
46	Excitation of vibrational quanta in furfural by intermediate-energy electrons. *Journal of Chemical Physics*, **2015**, 143, 224304	3.9	9
45	Low-energy electron collisions with acetic acid. *Physical Review A*, **2009**, 79,	2.6	9
44	Polarization effects in the elastic scattering of low-energy electrons by XH4 (X=C,Si,Ge,Sn,Pb). *Physical Review A*, **2003**, 68,	2.6	9
43	Real-time observation of ground state proton transfer: a model study. *Chemical Physics*, **2005**, 311, 255-268	2.3	9
42	Free energy barrier for dissociation of the guanosine monophosphate anion in water. *European Physical Journal D*, **2016**, 70, 1	1.3	9
41	On-the-fly dynamics simulations of transient anions. *Journal of Chemical Physics*, **2019**, 151, 224104	3.9	9
40	Electron-impact electronic-state excitation of para-benzoquinone. *Journal of Chemical Physics*, **2018**, 148, 124312	3.9	7
39	Low-energy positron scattering from iodomethane. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2013**, 46, 175202	1.3	7
38	Near-threshold vibrational excitation of acetylene by positron impact. *Physical Review A*, **2010**, 81,	2.6	7
37	Low Energy Positron Scattering by SF6 and CO2. *Physica Scripta*, **2004**, 110, 276	2.6	7
36	Electronic excitation of CO by positron impact. *Physical Review A*, **2005**, 72,	2.6	7
35	Theoretical and experimental study on electron interactions with chlorobenzene: Shape resonances and differential cross sections. *Journal of Chemical Physics*, **2016**, 145, 084311	3.9	7
34	Electron-Induced Reactions in 3-Bromopyruvic Acid. *Chemistry - A European Journal*, **2019**, 25, 5498-5506	4.8	6
33	Solvent effects on the π* shape resonances of uracil. *Journal of Chemical Physics*, **2020**, 152, 084301	3.9	6
32	Interaction of low-energy electrons with dimethyl sulfide and dimethyl disulfide. *Physical Review A*, **2014**, 90,	2.6	6
31	Electron collisions with hydrogen-bonded complexes. *Physical Review A*, **2011**, 84,	2.6	6

30	Comparative study of electron and positron scattering by H2: The role of the Σg+2 Feshbach resonance. *Physical Review A*, **2008**, 78,	2.6	6
29	Applications of the Schwinger Multichannel method with pseudopotentials to electron scattering from polyatomic molecules II: rotational excitation cross sections. *Brazilian Journal of Physics*, **2001**, 31, 21-29	1.2	6
28	Elastic scattering of low-energy electrons by ozone. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **1998**, 31, 4419-4426	1.3	6
27	Precursor anion states in dissociative electron attachment to chlorophenol isomers. *Journal of Chemical Physics*, **2016**, 145, 044310	3.9	6
26	Integral elastic, vibrational-excitation, electronic-state excitation, ionization, and total cross sections for electron scattering from para-benzoquinone. *Journal of Chemical Physics*, **2018**, 148, 204305	3.9	5
25	Electron collisions with alpha-D-glucose and beta-D-glucose monomers. *Journal of Chemical Physics*, **2010**, 132, 124309	3.9	5
24	Covalent bonds in positron dihalides. *Chemical Science*, **2020**, 11, 44-52	9.4	5
23	Formation of resonances and anionic fragments upon electron attachment to benzaldehyde. *Physical Chemistry Chemical Physics*, **2020**, 22, 8171-8181	3.6	4
22	Transient anion spectra of the potential radiosensitizers 5-cyanateuracil and 5-thiocyanateuracil. *Journal of Chemical Physics*, **2017**, 147, 214310	3.9	4
21	Cross-sections for rotational excitations of C3H4 isomers by electron impact. *European Physical Journal D*, **2006**, 37, 385-392	1.3	4
20	Annihilation probability density in positron scattering by He. *Physical Review A*, **2001**, 63,	2.6	4
19	Effective configurations in positron$ndash$molecule scattering. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2002**, 35, 3531-3538	1.3	4
18	Transient negative ion spectrum of the cytosine-guanine pair. *European Physical Journal D*, **2017**, 71, 1	1.3	3
17	Cross sections for elastic scattering of low-energy electrons by trimethylarsine (TMAs). *Journal of Physics B: Atomic, Molecular and Optical Physics*, **1999**, 32, 2031-2039	1.3	3
16	How the Size and Density of Charge-Transfer Excitons Depend on Heterojunctions' Architecture. *Journal of Physical Chemistry C*, **2021**, 125, 5458-5474	3.8	3
15	Shape Resonances and Elastic Cross Sections in Electron Scattering by CFBr and CFI. *Journal of Physical Chemistry A*, **2020**, 124, 8660-8667	2.8	1
14	Electron Driven Reactions in Tetrafluoroethane: Positive and Negative Ion Formation. *Journal of the American Society for Mass Spectrometry*, **2021**, 32, 1459-1468	3.5	1
13	Binding Matter with Antimatter: The Covalent Positron Bond. *Angewandte Chemie*, **2018**, 130, 8997-9002	3.6	1

12	Vibrational Excitation Cross-Section by Positron Impact: A Wave-Packet Dynamics Study. *Atoms*, **2021**, 9, 64	2.1	1
11	Formation of Temporary Negative Ions and Their Subsequent Fragmentation upon Electron Attachment to CoQ and CoQ H.. *ChemPhysChem*, **2022**, e202100834	3.2	0
10	Investigation of electron scattering asymmetries in halocamphors. *Journal of Physics: Conference Series*, **2020**, 1412, 182018	0.3	
9	Potential energy surfaces for anion states of 5-chlorouracil. *Journal of Physics: Conference Series*, **2015**, 635, 072086	0.3	
8	Positron-molecule interactions: theory and computation. *Journal of Physics: Conference Series*, **2015** , 635, 032119	0.3	
7	Positron interactions with molecules. *Journal of Physics: Conference Series*, **2012**, 388, 012019	0.3	
6	Multimode vibrational couplings in resonant positron annihilation. *Journal of Physics: Conference Series*, **2012**, 388, 072010	0.3	
5	Feshbach projection operator approach to positron annihilation. *Journal of Physics: Conference Series*, **2009**, 194, 072008	0.3	
4	Transient ions in electron and positron scattering. *Journal of Physics: Conference Series*, **2009**, 194, 012035	0.3	
3	Halogen loss induced by electron collisions in halouracils at low energies. *Journal of Physics: Conference Series*, **2020**, 1412, 182015	0.3	
2	Anion states of halocamphor molecules: insights into chirally sensitive dissociative electron attachment. *Physical Chemistry Chemical Physics*, **2021**, 23, 17616-17624	3.6	
1	Formation of Temporary Negative Ions and Their Subsequent Fragmentation upon Electron Attachment to CoQ and CoQ H.. *ChemPhysChem*, **2022**, 23, e202200094	3.2	