

# Marcel Mudrich

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

96  
papers

1,813  
citations

26  
h-index

38  
g-index

107  
ext. papers

2,008  
ext. citations

3.7  
avg. IF

4.47  
L-index

#	Paper	IF	Citations
96	Sympathetic cooling with two atomic species in an optical trap. <i>Physical Review Letters</i> , <b>2002</b> , 88, 253001	7.4	110
95	Atom-molecule collisions in an optically trapped gas. <i>Physical Review Letters</i> , <b>2006</b> , 96, 023202	7.4	104
94	Photoionisation of pure and doped helium nanodroplets. <i>International Reviews in Physical Chemistry</i> , <b>2014</b> , 33, 301-339	7	86
93	A modular end-station for atomic, molecular, and cluster science at the low density matter beamline of FERMI@Elettra. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2013</b> , 46, 164007	1.3	70
92	Mixture of ultracold lithium and cesium atoms in an optical dipole trap. <i>Applied Physics B: Lasers and Optics</i> , <b>2001</b> , 73, 791-799	1.9	63
91	Novel collective autoionization process observed in electron spectra of He clusters. <i>Physical Review Letters</i> , <b>2014</b> , 112, 073401	7.4	58
90	Spectroscopy of Cs attached to helium nanodroplets. <i>Journal of Chemical Physics</i> , <b>2004</b> , 121, 8880-6	3.9	48
89	Photoionization and imaging spectroscopy of rubidium atoms attached to helium nanodroplets. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 3843-51	3.6	45
88	Collective autoionization in multiply-excited systems: a novel ionization process observed in helium nanodroplets. <i>Scientific Reports</i> , <b>2014</b> , 4, 3621	4.9	43
87	Quantum interference spectroscopy of rubidium-helium exciplexes formed on helium nanodroplets. <i>Physical Review Letters</i> , <b>2008</b> , 100, 023401	7.4	42
86	Formation of cold alkali dimers on helium nanodroplets. <i>European Physical Journal D</i> , <b>2004</b> , 31, 291-299	1.3	42
85	Extreme ultraviolet ionization of pure He nanodroplets: mass-correlated photoelectron imaging, Penning ionization, and electron energy-loss spectra. <i>Journal of Chemical Physics</i> , <b>2013</b> , 139, 084301	3.9	40
84	Alkali-helium snowball complexes formed on helium nanodroplets. <i>Journal of Chemical Physics</i> , <b>2009</b> , 131, 044319	3.9	40
83	Cold reactions of alkali-metal and water clusters inside helium nanodroplets. <i>Physical Review Letters</i> , <b>2009</b> , 102, 183401	7.4	38
82	Charge transfer and penning ionization of dopants in or on helium nanodroplets exposed to EUV radiation. <i>Journal of Physical Chemistry A</i> , <b>2013</b> , 117, 4394-403	2.8	37
81	Dissipative vibrational wave packet dynamics of alkali dimers attached to helium nanodroplets. <i>Chemical Physics Letters</i> , <b>2010</b> , 490, 245-248	2.5	34
80	Improved setup for producing slow beams of cold molecules using a rotating nozzle. <i>Physical Review A</i> , <b>2010</b> , 81,	2.6	33

79	Vibrational relaxation and dephasing of Rb <sub>2</sub> attached to helium nanodroplets. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 6816-26	3.6	33
78	Tracking attosecond electronic coherences using phase-manipulated extreme ultraviolet pulses. <i>Nature Communications</i> , <b>2020</b> , 11, 883	17.4	32
77	Back and forth transfer and coherent coupling in a cold Rydberg dipole gas. <i>Physical Review Letters</i> , <b>2005</b> , 95, 233002	7.4	31
76	Spectroscopy of triplet states of Rb <sub>2</sub> by femtosecond pump-probe photoionization of doped helium nanodroplets. <i>Physical Review A</i> , <b>2009</b> , 80,	2.6	30
75	Wave packet dynamics in triplet states of Na <sub>2</sub> attached to helium nanodroplets. <i>Journal of Physical Chemistry A</i> , <b>2007</b> , 111, 7537-41	2.8	28
74	Enhanced Ionization of Embedded Clusters by Electron-Transfer-Mediated Decay in Helium Nanodroplets. <i>Physical Review Letters</i> , <b>2016</b> , 116, 203001	7.4	27
73	Desorption dynamics of heavy alkali metal atoms (Rb, Cs) off the surface of helium nanodroplets. <i>Journal of Physical Chemistry A</i> , <b>2014</b> , 118, 6604-14	2.8	27
72	Dopant-induced ignition of helium nanodroplets in intense few-cycle laser pulses. <i>Physical Review Letters</i> , <b>2011</b> , 107, 173402	7.4	27
71	Wave packet dynamics of K <sub>2</sub> attached to helium nanodroplets. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2006</b> , 39, S1151-S1168	1.3	26
70	Time-Resolved Measurement of Interatomic Coulombic Decay Induced by Two-Photon Double Excitation of Ne <sub>2</sub> . <i>Physical Review Letters</i> , <b>2017</b> , 118, 033202	7.4	25
69	Phase-modulated electronic wave packet interferometry reveals high resolution spectra of free Rb atoms and Rb*He molecules. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 23877-85	3.6	25
68	Photoassociation inside an optical dipole trap: absolute rate coefficients and Franck-Condon factors. <i>Applied Physics B: Lasers and Optics</i> , <b>2004</b> , 79, 993-999	1.9	25
67	Saturation of Cs <sub>2</sub> photoassociation in an optical dipole trap. <i>Physical Review A</i> , <b>2005</b> , 71,	2.6	23
66	Very long storage times and evaporative cooling of cesium atoms in a quasielectrostatic dipole trap. <i>Physical Review A</i> , <b>2000</b> , 62,	2.6	23
65	Highly efficient double ionization of mixed alkali dimers by intermolecular Coulombic decay. <i>Nature Physics</i> , <b>2019</b> , 15, 247-250	16.2	23
64	Imaging Excited-State Dynamics of Doped He Nanodroplets in Real-Time. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 307-312	6.4	22
63	Star cluster dynamics in a laboratory: electrons in an ultracold plasma. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2005</b> , 361, 1227-1242	4.3	21
62	Interatomic Coulombic decay in helium nanodroplets. <i>Physical Review A</i> , <b>2017</b> , 96,	2.6	20

61	Dynamics of solvation and desolvation of rubidium attached to He nanodroplets. <i>Journal of Chemical Physics</i> , <b>2015</b> , 143, 034302	3.9	18
60	Formation and relaxation of RbHe exciplexes on He nanodroplets studied by femtosecond pump and picosecond probe spectroscopy. <i>Journal of Chemical Physics</i> , <b>2012</b> , 137, 244307	3.9	18
59	Low-cost mechanical shutter for light beams. <i>Review of Scientific Instruments</i> , <b>2002</b> , 73, 4402-4404	1.7	18
58	Photoionization of clusters in intense few-cycle near infrared femtosecond pulses. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 8721-30	3.6	17
57	Evolution of dopant-induced helium nanoplasmas. <i>New Journal of Physics</i> , <b>2012</b> , 14, 075016	2.9	16
56	Ultrafast relaxation of photoexcited superfluid He nanodroplets. <i>Nature Communications</i> , <b>2020</b> , 11, 11217.4	17.4	16
55	Homo- and heteronuclear alkali metal trimers formed on helium nanodroplets. Part II. Femtosecond spectroscopy and spectra assignments. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 18769-80	3.6	15
54	Slow Interatomic Coulombic Decay of Multiply Excited Neon Clusters. <i>Physical Review Letters</i> , <b>2016</b> , 117, 276806	7.4	15
53	Efficiency of dopant-induced ignition of helium nanoplasmas. <i>New Journal of Physics</i> , <b>2016</b> , 18, 073046	2.9	14
52	Hyperfine-changing collisions in an optically trapped gas of ultracold cesium and lithium. <i>Physical Review A</i> , <b>2004</b> , 70,	2.6	14
51	The excitation function for $\text{Li} + \text{HF} \rightarrow \text{LiF} + \text{H}$ at collision energies below 80 meV. <i>Journal of Chemical Physics</i> , <b>2011</b> , 135, 204306	3.9	13
50	Real-Time Dynamics of the Formation of Hydrated Electrons upon Irradiation of Water Clusters with Extreme Ultraviolet Light. <i>Physical Review Letters</i> , <b>2019</b> , 122, 133001	7.4	12
49	Quantum rainbow scattering at tunable velocities. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	12
48	Penning Ionization of Acene Molecules by Helium Nanodroplets. <i>Journal of Physical Chemistry A</i> , <b>2018</b> , 122, 1855-1860	2.8	11
47	Desorption dynamics of RbHe exciplexes off He nanodroplets induced by spin-relaxation. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 9309-9320	3.6	11
46	Charge Exchange Dominates Long-Range Interatomic Coulombic Decay of Excited Metal-Doped Helium Nanodroplets. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 6904-6909	6.4	11
45	Kilohertz laser ablation for doping helium nanodroplets. <i>Review of Scientific Instruments</i> , <b>2007</b> , 78, 103106	10.6	11
44	Laser cooling of fast stored ions in barrier buckets. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2000</b> , 441, 209-218 <sup>1.2</sup>	1.2	11

43	Predissociation of high-lying Rydberg states of molecular iodine via ion-pair states. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 124311	3.9	10
42	Production of rotationally cold methyl radicals in pulsed supersonic beams. <i>Review of Scientific Instruments</i> , <b>2018</b> , 89, 113103	1.7	10
41	Charging dynamics of dopants in helium nanoplasmas. <i>Journal of Modern Optics</i> , <b>2017</b> , 64, 1061-1077	1.1	8
40	Predissociation dynamics of lithium iodide. <i>Journal of Chemical Physics</i> , <b>2015</b> , 142, 044303	3.9	8
39	Stability of two-component alkali clusters formed on helium nanodroplets. <i>European Physical Journal D</i> , <b>2009</b> , 52, 67-70	1.3	8
38	Guiding slow polar molecules with a charged wire. <i>Physical Review A</i> , <b>2011</b> , 84,	2.6	8
37	Autoionization dynamics of helium nanodroplets resonantly excited by intense XUV laser pulses. <i>New Journal of Physics</i> , <b>2020</b> , 22, 083043	2.9	8
36	Electron transfer mediated decay of alkali dimers attached to He nanodroplets. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 8557-8564	3.6	7
35	Desorption Dynamics of Rb Molecules Off the Surface of Helium Nanodroplets. <i>Journal of Physical Chemistry A</i> , <b>2016</b> , 120, 7641-7649	2.8	7
34	Thermal disequilibrium effects in quantum reflection. <i>Physical Review A</i> , <b>2010</b> , 82,	2.6	7
33	A simple photoionization scheme for characterizing electron and ion spectrometers. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 083105	1.7	7
32	Quantum dynamics of Rb atoms desorbing off the surface of He nanodroplets. <i>Physical Review A</i> , <b>2018</b> , 98,	2.6	7
31	Penning collisions between supersonically expanded metastable He atoms and laser-cooled Li atoms. <i>Journal of Chemical Physics</i> , <b>2019</b> , 150, 034201	3.9	6
30	Fano resonances observed in helium nanodroplets. <i>Physical Review A</i> , <b>2016</b> , 93,	2.6	6
29	Penning spectroscopy and structure of acetylene oligomers in He nanodroplets. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 10149-10157	3.6	5
28	A compact design for velocity-map imaging of energetic electrons and ions. <i>Journal of Chemical Physics</i> , <b>2017</b> , 147, 013942	3.9	4
27	Fall-back time for photo-ionized Cs atoms attached to superfluid 4He nanodroplets. <i>European Physical Journal D</i> , <b>2019</b> , 73, 1	1.3	4
26	Inelastic scattering of photoelectrons from He nanodroplets. <i>Journal of Chemical Physics</i> , <b>2019</b> , 150, 044304	3.9	4

25	Role of ion-pair states in the predissociation dynamics of Rydberg states of molecular iodine. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 18896-904	3.6	4
24	High-gain harmonic generation with temporally overlapping seed pulses and application to ultrafast spectroscopy. <i>Optics Express</i> , <b>2020</b> , 28, 29976-29990	3.3	3
23	Unravelling the full relaxation dynamics of superexcited helium nanodroplets. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 15138-15149	3.6	3
22	Enhancement of Above Threshold Ionization in Resonantly Excited Helium Nanodroplets. <i>Physical Review Letters</i> , <b>2021</b> , 127, 093201	7.4	3
21	Dopant-induced ignition of helium nanoplasmas – mechanistic study. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2017</b> , 50, 244001	1.3	2
20	Migration of surface excitations in highly-excited nanosystems probed by intense resonant XUV radiation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2015</b> , 48, 244011	1.3	2
19	New method to measure the friction force of electron coolers in heavy-ion storage rings. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2003</b> , 498, 16-21	1.2	2
18	Optical dipole trap inside a laser resonator. <i>Optics Letters</i> , <b>2004</b> , 29, 1147-9	3	2
17	Direct inner-shell photoionization of Xe atoms embedded in helium nanodroplets. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2020</b> , 53, 204001	1.3	2
16	Time-resolved quantum beats in the fluorescence of helium resonantly excited by XUV radiation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2020</b> , 53, 244012	1.3	2
15	Ultrafast Resonant Interatomic Coulombic Decay Induced by Quantum Fluid Dynamics. <i>Physical Review X</i> , <b>2021</b> , 11,	9.1	2
14	Coincident angle-resolved state-selective photoelectron spectroscopy of acetylene molecules: a candidate system for time-resolved dynamics. <i>Faraday Discussions</i> , <b>2021</b> , 228, 242-265	3.6	2
13	Single-shot electron imaging of dopant-induced nanoplasmas. <i>New Journal of Physics</i> , <b>2021</b> , 23, 053011	2.9	1
12	Photoelectron Spectroscopy of Coronene Molecules Embedded in Helium Nanodroplets. <i>Journal of Low Temperature Physics</i> , <b>2021</b> , 202, 444-455	1.3	1
11	Quantum composer: A programmable quantum visualization and simulation tool for education and research. <i>American Journal of Physics</i> , <b>2021</b> , 89, 307-316	0.7	0
10	Efficient tampering of a coulomb exploding cluster embedded in a hydrogen shell. <i>European Physical Journal: Special Topics</i> , 1	2.3	0
9	Quantum-State-Sensitive Detection of Alkali Dimers on Helium Nanodroplets by Laser-Induced Coulomb Explosion.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 093201	7.4	0
8	Time-Resolved Ultrafast Interatomic Coulombic Decay in Superexcited Sodium-Doped Helium Nanodroplets.. <i>Journal of Physical Chemistry Letters</i> , <b>2022</b> , 4470-4478	6.4	0

- 7 Ultrafast Dynamics in Helium Droplets. *Topics in Applied Physics*, **2022**, 447-511 0.5 0
- 6 Interatomic Coulombic Decay Processes after Multiple Valence Excitations in Ne Clusters. *Journal of Physics: Conference Series*, **2015**, 635, 112067 0.3
- 5 Time-resolved and XUV spectroscopy of helium nanodroplets. *Journal of Physics: Conference Series*, **2015**, 635, 112010 0.3
- 4 A. Interactions in Trapped Atomic Gases **2005**, 377-406
- 3 Intriguing Single Photon Induced Processes in Helium Nanodroplets. *Springer Proceedings in Physics*, **2019**, 121-129 0.2
- 2 Photoionization of Acetylene Doped in Helium Nanodroplets by EUV Synchrotron Radiation. *Springer Proceedings in Physics*, **2019**, 230-238 0.2
- 1 Ignition of Doped Helium Nanodroplets in Intense Few-Cycle Laser Pulses. *Springer Proceedings in Physics*, **2012**, 385-390 0.2