

# Yong Xia

## List of Publications by Year in descending order

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27  
papers

595  
citations

840776

11  
h-index

580821

25  
g-index

27  
all docs

27  
docs citations

27  
times ranked

494  
citing authors

#	ARTICLE	IF	CITATIONS
1	2D Magneto-Optical Trapping of Diatomic Molecules. <i>Physical Review Letters</i> , 2013, 110, 143001.	7.8	323
2	Calculation of vibrational branching ratios and hyperfine structure of $\text{MgF}$ and its suitability for laser cooling and magneto-optical trapping. <i>Physical Review A</i> , 2016, 93, .	2.5	42
3	Machine learning based accurate recognition of fractional optical vortex modes in atmospheric environment. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	23
4	Electrostatic Surface Guiding for Cold Polar Molecules: Experimental Demonstration. <i>Physical Review Letters</i> , 2008, 100, 043003.	7.8	22
5	Narrow-linewidth and stable-frequency light source for laser cooling of magnesium fluoride molecules. <i>Applied Physics Express</i> , 2015, 8, 092701.	2.4	21
6	Multistage optical Stark decelerator for a pulsed supersonic beam with a quasi-cw optical lattice. <i>Optics Express</i> , 2009, 17, 10706.	3.4	19
7	Determination of the normal $A_2^1$ state in $\text{MgF}$ with application to direct laser cooling of molecules. <i>Journal of Chemical Physics</i> , 2019, 150, 084302.	3.0	17
8	Generation of a dark hollow beam by a nonlinear ZnSe crystal and its propagation properties in free space: Theoretical analysis. <i>Optics Communications</i> , 2014, 322, 179-182.	2.1	16
9	Broad Bandwidth and Highly Efficient Recognition of Optical Vortex Modes Achieved by the Neural-Network Approach. <i>Physical Review Applied</i> , 2020, 13, .	3.8	15
10	Three-dimensional modeling of magneto-optical trapping of $\text{MgF}$ molecules with multilevel rate equations. <i>Physical Review A</i> , 2019, 99, .	2.5	14
11	A new route for laser cooling and trapping of cold molecules: Intensity-gradient cooling of $\text{MgF}$ molecules using localized hollow beams. <i>New Journal of Physics</i> , 2020, 22, 033003.	2.9	12
12	Rotational relaxation of fluoromethane molecules in low-temperature collisions with buffer-gas helium. <i>Physical Review A</i> , 2016, 93, .	2.5	7
13	2D surface optical lattice formed by plasmon polaritons with application to nanometer-scale molecular deposition. <i>Scientific Reports</i> , 2017, 7, 7788.	3.3	7
14	Destabilization of dark states in $\text{MgF}$ molecules. <i>Physical Review A</i> , 2021, 103, .	2.5	7
15	Intensity-gradient induced Sisyphus cooling of a single atom in a localized hollow-beam trap. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 195001.	1.5	6
16	Optically stimulated slowing of polar heavy-atom molecules with a constant beat phase. <i>Physical Review A</i> , 2018, 97, .	2.5	6
17	Cold collision and the determination of the $X^2\Sigma^+1/2$ ( $\hat{a}^- = \hat{a}^-1$ , $\hat{a}^- \dots \hat{N} \hat{a}^- = \hat{a}^-1$ ) $\hat{a}^- \hat{a}^+ \hat{a}^- A_2^1 1/2$ ( $\hat{a}^- \hat{a}^- = \hat{a}^-0$ , $\hat{a}^- \hat{a}^- = \hat{a}^-1/2$ ) frequency buffer-gas-cooled $\text{MgF}$ molecules. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 236, 106583.	2.3	6
18	Chip-scale molecule trapping by a blue-detuned metasurface hollow beam. <i>Journal of Optics (United Kingdom)</i> 10, 103001.	2.2	6

#	ARTICLE	IF	CITATIONS
19	Optical focusing based on the planar metasurface reflector with application to trapping cold molecules. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, 3049.	2.1	6
20	Rotational analysis and hyperfine structures of $A^2\Sigma^+_{1/2} \rightarrow X^2\Sigma^+_{1/2}$ transition in $^{25,26}\text{MgF}$ isotope molecules. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2022, 278, 108015.	2.3	4
21	Simulation of EOM-based frequency-chirped laser slowing of MgF radicals. <i>Frontiers of Physics</i> , 2022, 17, 1.	5.0	4
22	Generation of a localized hollow laser beam using crossed nonlinear optical crystals. <i>Optics Communications</i> , 2018, 419, 97-102.	2.1	3
23	Radiative force from optical cycling on magnesium monofluoride. <i>Physical Review A</i> , 2022, 105, .	2.5	3
24	Quadrupolelike electrostatic guiding for cold polar molecules. <i>Journal of Chemical Physics</i> , 2008, 128, 094301.	3.0	2
25	Note: Sensitive fluorescence detection through minimizing the scattering light by anti-reflective nanostructured materials. <i>Review of Scientific Instruments</i> , 2018, 89, 046103.	1.3	2
26	Generation of elliptical and circular vector hollow beams with different polarizations by a Mach-Zehnder-type optical path. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 015605.	2.2	1
27	All-optical long-distance guide for cold molecules using a parallel hollow beam generated by a nonlinear ZnSe crystal. <i>Optics Communications</i> , 2019, 430, 318-322.	2.1	1