

# 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	Rotational analysis and hyperfine structures of $A^2\hat{1}1/2 \rightarrow X^2\hat{1}1/2$ transition in $^{25,26}\text{MgF}$ isotope molecules. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 278, 108015.	2.3	4
2	Simulation of EOM-based frequency-chirped laser slowing of MgF radicals. Frontiers of Physics, 2022, 17, 1.	5.0	4
3	Radiative force from optical cycling on magnesium monofluoride. Physical Review A, 2022, 105, .	2.5	3
4	Destabilization of dark states in MgF molecules. Physical Review A, 2021, 103, .	2.5	7
5	Machine learning based accurate recognition of fractional optical vortex modes in atmospheric environment. Applied Physics Letters, 2021, 119, .	3.3	23
6	Chip-scale molecule trapping by a blue-detuned metasurface hollow beam. Journal of Optics (United Kingdom), 2020, 22, 033003.	2.2	6
7	Broad Bandwidth and Highly Efficient Recognition of Optical Vortex Modes Achieved by the Neural-Network Approach. Physical Review Applied, 2020, 13, .	3.8	15
8	A new route for laser cooling and trapping of cold molecules: Intensity-gradient cooling of MgF molecules using localized hollow beams. New Journal of Physics, 2020, 22, 033003.	2.9	12
9	Cold collision and the determination of the $X^2\hat{1}1/2$ ( $\hat{a}^- = \hat{a}^-1$ , $\hat{a}^- \dots N\hat{a}^- = \hat{a}^-1$ ) $\hat{a}^- \hat{a}^+ \hat{a}^- A^2\hat{1}1/2$ ( $\hat{a}^- \hat{a}^- = \hat{a}^-0$ , $\hat{a}^- \hat{a}^- = \hat{a}^-1/2$ ) frequency buffer-gas-cooled MgF molecules. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 236, 106583.	2.3	6
10	Three-dimensional modeling of magneto-optical trapping of MgF molecules with multilevel rate equations. Physical Review A, 2019, 99, .	2.5	14
11	Determination of the normal $A^2\hat{1}$ state in MgF with application to direct laser cooling of molecules. Journal of Chemical Physics, 2019, 150, 084302.	3.0	17
12	All-optical long-distance guide for cold molecules using a parallel hollow beam generated by a nonlinear ZnSe crystal. Optics Communications, 2019, 430, 318-322.	2.1	1
13	Optically stimulated slowing of polar heavy-atom molecules with a constant beat phase. Physical Review A, 2018, 97, .	2.5	6
14	Generation of elliptical and circular vector hollow beams with different polarizations by a Mach-Zehnder-type optical path. Journal of Optics (United Kingdom), 2018, 20, 015605.	2.2	1
15	Generation of a localized hollow laser beam using crossed nonlinear optical crystals. Optics Communications, 2018, 419, 97-102.	2.1	3
16	Note: Sensitive fluorescence detection through minimizing the scattering light by anti-reflective nanostructured materials. Review of Scientific Instruments, 2018, 89, 046103.	1.3	2
17	Optical focusing based on the planar metasurface reflector with application to trapping cold molecules. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 3049.	2.1	6
18	2D surface optical lattice formed by plasmon polaritons with application to nanometer-scale molecular deposition. Scientific Reports, 2017, 7, 7788.	3.3	7

#	ARTICLE	IF	CITATIONS
19	Calculation of vibrational branching ratios and hyperfine structure of $^{24}\text{Mg}^+$ and its suitability for laser cooling and magneto-optical trapping. <i>Physical Review A</i> , 2016, 93, .	2.59	42
20	Rotational relaxation of fluoromethane molecules in low-temperature collisions with buffer-gas helium. <i>Physical Review A</i> , 2016, 93, .	2.5	7
21	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
22	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
23	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
24	2D Magneto-Optical Trapping of Diatomic Molecules. <i>Physical Review Letters</i> , 2013, 110, 143001.	7.8	323
25	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
26	Quadrupolelike electrostatic guiding for cold polar molecules. <i>Journal of Chemical Physics</i> , 2008, 128, 094301.	3.0	2
27	Electrostatic Surface Guiding for Cold Polar Molecules: Experimental Demonstration. <i>Physical Review Letters</i> , 2008, 100, 043003.	7.8	22