

Adam S Backer

List of Publications by Year in descending order

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Version: 2024-02-01

24
papers

1,508
citations

623734

14
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940533

16
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24
all docs

24
docs citations

24
times ranked

1252
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal Point Spread Function Design for 3D Imaging. <i>Physical Review Letters</i> , 2014, 113, 133902.	7.8	277
2	Precise Three-Dimensional Scan-Free Multiple-Particle Tracking over Large Axial Ranges with Tetrapod Point Spread Functions. <i>Nano Letters</i> , 2015, 15, 4194-4199.	9.1	210
3	Simultaneous, accurate measurement of the 3D position and orientation of single molecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19087-19092.	7.1	176
4	Extending Single-Molecule Microscopy Using Optical Fourier Processing. <i>Journal of Physical Chemistry B</i> , 2014, 118, 8313-8329.	2.6	129
5	Multicolour localization microscopy by point-spread-function engineering. <i>Nature Photonics</i> , 2016, 10, 590-594.	31.4	128
6	The Role of Molecular Dipole Orientation in Single-Molecule Fluorescence Microscopy and Implications for Super-Resolution Imaging. <i>ChemPhysChem</i> , 2014, 15, 587-599.	2.1	121
7	Enhanced DNA imaging using super-resolution microscopy and simultaneous single-molecule orientation measurements. <i>Optica</i> , 2016, 3, 659.	9.3	103
8	A bisected pupil for studying single-molecule orientational dynamics and its application to three-dimensional super-resolution microscopy. <i>Applied Physics Letters</i> , 2014, 104, 193701.	3.3	68
9	Computational inverse design for cascaded systems of metasurface optics. <i>Optics Express</i> , 2019, 27, 30308.	3.4	62
10	Single-molecule orientation measurements with a quadrated pupil. <i>Optics Letters</i> , 2013, 38, 1521.	3.3	60
11	Achromatic Varifocal Metalens for the Visible Spectrum. <i>ACS Photonics</i> , 2019, 6, 2432-2440.	6.6	55
12	Single-molecule polarization microscopy of DNA intercalators sheds light on the structure of S-DNA. <i>Science Advances</i> , 2019, 5, eaav1083.	10.3	42
13	Determining the rotational mobility of a single molecule from a single image: a numerical study. <i>Optics Express</i> , 2015, 23, 4255.	3.4	41
14	The double-helix point spread function enables precise and accurate measurement of 3D single-molecule localization and orientation. <i>Proceedings of SPIE</i> , 2013, 8590, 85900.	0.8	25
15	Co-Design of Free-Space Metasurface Optical Neuromorphic Classifiers for High Performance. <i>ACS Photonics</i> , 2021, 8, 2103-2111.	6.6	7
16	Elucidating the Role of Topological Constraint on the Structure of Overstretched DNA Using Fluorescence Polarization Microscopy. <i>Journal of Physical Chemistry B</i> , 2021, 125, 8351-8361.	2.6	4
17	Single-molecule orientation measurements with a quadrated pupil. <i>Proceedings of SPIE</i> , 2014, , .	0.8	0
18	Optimal Point Spread Function for 3D High-Precision Imaging. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
19	The Double-Helix Microscope Enables Precise and Accurate Measurement of 3D Single-Molecule Orientation and Localization Beyond the Diffraction Limit. , 2013, , .		0
20	Measuring the 3D Position and Orientation of Single Molecules Simultaneously and Accurately with the Double Helix Microscope. , 2013, , .		0
21	Optical Methods for Measuring Single-Molecule Orientation and Position: Implications for Super-Resolution Microscopy. , 2013, , .		0
22	Single-Molecule Orientation Measurements with a Quadrated Pupil. , 2013, , .		0
23	Determining the Rotational Mobility of a Single Molecule from a Single Image: A Numerical Study. , 2015, , .		0
24	Maximally Informative Point Spread Functions for 3D Super-Resolution Imaging. , 2015, , .		0