Aaron D Slepkov

List of Publications by Year
in descending order

66 papers	1,588 citations	430754 18 h-index	289141 40 g-index
66 all docs	66 docs citations	66 times ranked	1757 citing authors

#	Article	IF	Citations
1	Polyynes as a Model for Carbyne:Â Synthesis, Physical Properties, and Nonlinear Optical Response. Journal of the American Chemical Society, 2005, 127, 2666-2676.	6.6	366
2	The surprising nonlinear optical properties of conjugated polyyne oligomers. Journal of Chemical Physics, 2004, 120, 6807-6810.	1.2	152
3	Synthesis, Structure, and Nonlinear Optical Properties of Diarylpolyynes. Organic Letters, 2005, 7, 51-54.	2.4	104
4	Linking plasma formation in grapes to microwave resonances of aqueous dimers. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4000-4005.	3.3	85
5	Synthesis, Spectroscopic and Nonlinear Optical Properties of Multiple [60]Fullerene-Oligo(p-phenylene ethynylene) Hybrids. Chemistry - A European Journal, 2005, 11, 3643-3658.	1.7	82
6	Ultrafast optical Kerr effect measurements of third-order nonlinearities in cross-conjugatediso-polydiacetylene oligomers. Journal of Chemical Physics, 2002, 116, 3834-3840.	1.2	73
7	Ultralow-Power Four-Wave Mixing with Rb in a Hollow-Core Photonic Band-Gap Fiber. Physical Review Letters, 2009, 103, 043602.	2.9	59
8	Spectroscopy of Rb atoms in hollow-core fibers. Physical Review A, 2010, 81, .	1.0	54
9	Two-Photon Absorption Properties of Two-Dimensional Ï€-Conjugated Chromophores: Combined Experimental and Theoretical Study. Journal of Physical Chemistry A, 2011, 115, 105-117.	1.1	54
10	Generation of large alkali vapor densities inside bare hollow-core photonic band-gap fibers. Optics Express, 2008, 16, 18976.	1.7	53
11	Synthesis, Structure, and Nonlinear Optical Properties of Cross-Conjugated Perphenylatediso-Polydiacetylenes. Chemistry - A European Journal, 2005, 11, 321-329.	1.7	51
12	Two-photon absorption in two-dimensional conjugated quadrupolar chromophores. Optics Letters, 2006, 31, 3315.	1.7	38
13	Multimodal CARS microscopy of structured carbohydrate biopolymers. Biomedical Optics Express, 2010, 1, 1347.	1.5	37
14	Hyperspectral multimodal CARS microscopy in the fingerprint region. Journal of Biophotonics, 2014, 7, 49-58.	1.1	37
15	On-demand all-optical generation of controlled Rb-vapor densities in photonic-band-gap fibers. Physical Review A, 2009, 79, .	1.0	27
16	Donor/Acceptor Effects on the Linear and Nonlinear Optical Properties of Geminal Diethynylethenes (g-DEEs). Helvetica Chimica Acta, 2007, 90, 909-927.	1.0	23
17	Forward-collected simultaneous fluorescence lifetime imaging and coherent anti-Stokes Raman scattering microscopy. Journal of Biomedical Optics, 2011, 16, 021103.	1.4	23
18	Unraveling the complexity of deep gas accumulations with three-dimensional multimodal CARS microscopy. Geology, 2012, 40, 1063-1066.	2.0	20

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19	Single laser source for multimodal coherent anti-Stokes Raman scattering microscopy. Applied Optics, 2010, 49, F10.	2.1	18
20	All-optical modulation of four-wave mixing in an Rb-filled photonic bandgap fiber. Optics Letters, 2010, 35, 2287.	1.7	17
21	Benfordâ€™s Law: Textbook Exercises and Multiple-Choice Testbanks. PLoS ONE, 2015, 10, e0117972.	1.1	17
22	Spectrally-broad coherent anti-Stokes Raman scattering hyper-microscopy utilizing a Stokes supercontinuum pumped at 800 nm. Biomedical Optics Express, 2016, 7, 4335.	1.5	16
23	Integrated testlets and the immediate feedback assessment technique. American Journal of Physics, 2013, 81, 782-791.	0.3	15
24	Interplay of pulse bandwidth and spectral resolution in spectral-focusing CARS microscopy. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 842.	0.9	15
25	Label-free hyperspectral nonlinear optical microscopy of the biofuel micro-algae Haematococcus Pluvialis. Biomedical Optics Express, 2014, 5, 3391.	1.5	14
26	Absorption of ultrashort optical pulses in water. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 3343.	0.8	13
27	Score Increase and Partial-Credit Validity When Administering Multiple-Choice Tests Using an Answer-Until-Correct Format. Journal of Chemical Education, 2016, 93, 1839-1846.	1.1	12
28	Application of spectral-focusing-CARS microscopy to pharmaceutical sample analysis. AIP Advances, 2018, 8, 095213.	0.6	12
29	Spatial-spectral coupling in coherent anti-Stokes Raman scattering microscopy. Optics Express, 2013, 21, 15298.	1.7	11
30	Pulse splitting in the anomalous group-velocity-dispersion regime. Optics Express, 2011, 19, 9309.	1.7	10
31	Brighter CARS hypermicroscopy via â€œspectral surfingâ€•of a Stokes supercontinuum. Optics Letters, 2017, 42, 2255.	1.7	10
32	Partial Credit in Answer-Until-Correct Multiple-Choice Tests Deployed in a Classroom Setting. Applied Measurement in Education, 2019, 32, 138-150.	0.5	9
33	Comparison of integrated testlet and constructed-response question formats. Physical Review Physics Education Research, 2014, 10, .	1.7	8
34	A Baseline for Multiple-Choice Testing in the University Classroom. SAGE Open, 2021, 11, 215824402110168.	0.8	7
35	Comparison of two photonic crystal fibers for supercontinuum-Stokes spectral-focusing-CARS hyperspectroscopy. OSA Continuum, 2018, 1, 1385.	1.8	7
36	Integrated Testlets: A New Form of Expert-Student Collaborative Testing. Collected Essays on Learning and Teaching, 0, 8, 201-210.	0.0	7

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37	Far-infrared optical properties of antiferromagneticSmTiO3. Physical Review B, 1999, 59, 6938-6942.	1.1	6
38	Mimicking Multimodal Contrast with Vertex Component Analysis of Hyperspectral CARS Images. Journal of Spectroscopy, 2015, 2015, 1-8.	0.6	6
39	Optical properties of cross-conjugated isopolydiacetylene oligomers as measured by ultravioletÂvisible spectroscopy and the optical Kerr effect. Journal of Optics, 2002, 4, S207-S211.	1.5	5
40	Microwave induced mechanical activation of hydrogel dimers. Soft Matter, 2019, 15, 5804-5809.	1.2	3
41	Using multimodal femtosecond CARS imaging to determine plaque burden in luminal atherosclerosis. Proceedings of SPIE, 2011, , .	0.8	2
42	In vivohyperspectral CARS and FWM microscopy of carotenoid accumulation inH. Pluvialis. , 2014, , .		2
43	Fruit photonics and the shape of water. Physics Today, 2020, 73, 62-63.	0.3	2
44	Synthesis, Structure, and Nonlinear Optical Properties of Diarylpolyynes.. ChemInform, 2005, 36, no.	0.1	1
45	Production of controllable Rb-vapor densities in photonic bandgap fibers. , 2008, , .		1
46	High performance multimodal CARS microscopy using a single femtosecond source. Proceedings of SPIE, 2010, , .	0.8	1
47	Spatial-spectral coupling in hyperspectral CARS microscopy image formation. Proceedings of SPIE, 2013, , .	0.8	1
48	Chip-Based Optical Interactions with Rubidium Vapor. , 2010, , .		1
49	Polarization-enabled spectral-focusing CARS microscopy. OSA Continuum, 2020, 3, 2766.	1.8	1
50	The effects of donor-acceptor substitution symmetry on the nonlinear absorption of two-dimensionally-conjugated isomeric chromophores. , 2005, , .		0
51	The one-dimensional nature of polyynes. , 2005, , .		0
52	Ultrafast time-resolved and spectrally resolved measurements of third-order nonlinearities in As 2 Se 3 chalcogenide glass. , 2005, , .		0
53	SIMS analysis of Rbâ€doped hollowâ€core photonic bandâ€gap silica fiber using a CAMECA 4550 instrument. Surface and Interface Analysis, 2011, 43, 566-568.	0.8	0
54	Diverse suggestions for improving physics teaching. Physics Today, 2014, 67, 12-12.	0.3	0

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55	Sub-mM Imaging of Carotenoids Using Electronic and Vibrational Nonlinear Optical Microscopy. , 2015, , .		0
56	Brighter CARS hypermicroscopy via â€œspectral surfingâ€• , 2017, , .		0
57	Grape balls of fire!: Photonic interactions of hyperfrequency radiation with aqueous dielectric spheres. , 2017, , .		0
58	Diffusion and Redistribution of Rubidium in Hollow-Core Photonic Bandgap Fibers. , 2009, , .		0
59	Ultralow-power nonlinear optics with Rb-filled photonic band-gap fibers. , 2009, , .		0
60	All-Optical Modulation of Four Wave Mixing in a Rb-Filled Hollow-Core Photonic Band-Gap Fiber. , 2009, , .		0
61	Optimizing Spectral Resolution in Supercontinuum-Generation-Based Multimodal fs CARS Microscopy. , 2010, , .		0
62	â€œMultimodal Contrastâ€•from the Vertex Component Analysis of Hyperspectral CARS Images. , 2015, , .		0
63	Ultra-broadband coherent anti-Stokes Raman scattering microscopy with a dynamically power-tuned Stokes supercontinuum. , 2017, , .		0
64	Spectral-surfing CARS hypermicroscopy of pharmaceutical samples with commercial supercontinuum generating photonic crystal fibres. , 2018, , .		0
65	10.1063/1.5027273.1. , 2018, , .		0
66	Integrated Testlets in Optics and Photonics: A Novel Assessment Tool and its Online Deployment. , 2021, , .		0