

# David S Bradshaw

## List of Publications by Year in descending order

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82  
papers

1,544  
citations

331670

21  
h-index

315739

38  
g-index

86  
all docs

86  
docs citations

86  
times ranked

1097  
citing authors

#	ARTICLE	IF	CITATIONS
1	Resonance Energy Transfer: From Fundamental Theory to Recent Applications. <i>Frontiers in Physics</i> , 2019, 7, .	2.1	161
2	Virtual photons, dipole fields and energy transfer: a quantum electrodynamical approach. <i>European Journal of Physics</i> , 2004, 25, 845-858.	0.6	149
3	Resonance energy transfer: The unified theory revisited. <i>Journal of Chemical Physics</i> , 2003, 119, 2264-2274.	3.0	148
4	Optically induced forces and torques: Interactions between nanoparticles in a laser beam. <i>Physical Review A</i> , 2005, 72, .	2.5	72
5	Chiral discrimination in optical trapping and manipulation. <i>New Journal of Physics</i> , 2014, 16, 103021.	2.9	52
6	Signatures of material and optical chirality: Origins and measures. <i>Chemical Physics Letters</i> , 2015, 626, 106-110.	2.6	50
7	Interactions between spherical nanoparticles optically trapped in Laguerre-Gaussian modes. <i>Optics Letters</i> , 2005, 30, 3039.	3.3	47
8	Laser optical separation of chiral molecules. <i>Optics Letters</i> , 2015, 40, 677.	3.3	43
9	Optical Vortex Generation from Molecular Chromophore Arrays. <i>Physical Review Letters</i> , 2013, 111, 153603.	7.8	41
10	Optically nonlinear energy transfer in light-harvesting dendrimers. <i>Journal of Chemical Physics</i> , 2004, 121, 2445-2454.	3.0	39
11	Laser-induced forces between carbon nanotubes. <i>Optics Letters</i> , 2005, 30, 783.	3.3	39
12	Optically controlled resonance energy transfer: Mechanism and configuration for all-optical switching. <i>Journal of Chemical Physics</i> , 2008, 128, 144506.	3.0	39
13	Manipulating particles with light: radiation and gradient forces. <i>European Journal of Physics</i> , 2017, 38, 034008.	0.6	39
14	Optical binding of nanoparticles. <i>Nanophotonics</i> , 2020, 9, 1-17.	6.0	39
15	Quantum electrodynamics in modern optics and photonics: tutorial. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 1153.	2.1	35
16	Mechanisms of Light Energy Harvesting in Dendrimers and Hyperbranched Polymers. <i>Polymers</i> , 2011, 3, 2053-2077.	4.5	33
17	Direct generation of optical vortices. <i>Physical Review A</i> , 2014, 89, .	2.5	31
18	QUANTUM CHANNELS IN NONLINEAR OPTICAL PROCESSES. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2009, 18, 285-299.	1.8	30

#	ARTICLE	IF	CITATIONS
19	Chirality in Optical Trapping and Optical Binding. <i>Photonics</i> , 2015, 2, 483-497.	2.0	29
20	The role of virtual photons in nanoscale photonics. <i>Annalen Der Physik</i> , 2014, 526, 173-186.	2.4	28
21	Chiral nanoemitter array: A launchpad for optical vortices. <i>Laser and Photonics Reviews</i> , 2013, 7, 1088-1092.	8.7	26
22	Interparticle Interactions: Energy Potentials, Energy Transfer, and Nanoscale Mechanical Motion in Response to Optical Radiation. <i>Journal of Physical Chemistry A</i> , 2013, 117, 75-82.	2.5	20
23	Optically induced inter-particle forces: from the bonding of dimers to optical electrostriction in molecular solids. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, S637-S650.	1.5	19
24	Mechanism for Optical Enhancement and Suppression of Fluorescence. <i>Journal of Physical Chemistry A</i> , 2009, 113, 6537-6539.	2.5	18
25	Identifying the development in phase and amplitude of dipole and multipole radiation. <i>European Journal of Physics</i> , 2012, 33, 345-358.	0.6	18
26	Perturbation theory and the two-level approximation: A corollary and critique. <i>Chemical Physics Letters</i> , 2011, 503, 153-156.	2.6	17
27	All-optical control of molecular fluorescence. <i>Physical Review A</i> , 2010, 81, .	2.5	16
28	All-optical switching between quantum dot nanoarrays. <i>Superlattices and Microstructures</i> , 2010, 47, 308-313.	3.1	15
29	Electromagnetic trapping of chiral molecules: orientational effects of the irradiating beam. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015, 32, B25.	2.1	15
30	Identifying diamagnetic interactions in scattering and nonlinear optics. <i>Physical Review A</i> , 2016, 94, .	2.5	15
31	Dynamics of the dispersion interaction in an energy transfer system. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 5250.	2.8	14
32	A photonic basis for deriving nonlinear optical response. <i>European Journal of Physics</i> , 2009, 30, 239-251.	0.6	14
33	Influence of chirality on fluorescence and resonance energy transfer. <i>Journal of Chemical Physics</i> , 2019, 151, 034305.	3.0	14
34	Laser-Controlled Fluorescence in Two-Level Systems. <i>Journal of Physical Chemistry B</i> , 2011, 115, 5227-5233.	2.6	13
35	Off-Resonance Control and All-Optical Switching: Expanded Dimensions in Nonlinear Optics. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4252.	2.5	12
36	Off-resonant activation of optical emission. <i>Optics Communications</i> , 2010, 283, 4365-4367.	2.1	11

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37	All-optical switching based on controlled energy transfer between nanoparticles in film arrays. Journal of Nanophotonics, 2009, 3, 031503.	1.0	10
38	Expanded horizons for generating and exploring optical angular momentum in vortex structures. Proceedings of SPIE, 2013, , .	0.8	9
39	Competing mechanisms for energy transfer in two-photon absorbing systems. Chemical Physics Letters, 2006, 430, 191-194.	2.6	8
40	Dendrimer light-harvesting: intramolecular electrodynamics and mechanisms. Dalton Transactions, 2009, , 10006.	3.3	8
41	Multiple light scattering and optomechanical forces. Journal of Nanophotonics, 2010, 4, 041565.	1.0	8
42	Raman scattering mediated by neighboring molecules. Journal of Chemical Physics, 2016, 144, 174304.	3.0	8
43	The control of near-field optics: imposing direction through coupling with off-resonant laser light. Applied Physics B: Lasers and Optics, 2008, 93, 13-20.	2.2	7
44	Signatures of Exciton Coupling in Paired Nanoemitters. Journal of Physical Chemistry C, 2013, 117, 12393-12396.	3.1	7
45	Laser-modified one- and two-photon absorption: Expanding the scope of optical nonlinearity. Physical Review A, 2013, 88, .	2.5	6
46	Optically tailored access to metastable electronic states. Chemical Physics Letters, 2013, 590, 235-238.	2.6	5
47	Quantum field representation of photon-molecule interactions. European Journal of Physics, 2020, 41, 025406.	0.6	5
48	Optical forces between dielectric nanoparticles in an optical vortex. Proceedings of SPIE, 2005, , .	0.8	4
49	Introduction to Photon Science and Technology. , 2018, , .		4
50	Optical control and switching of excitation transfer in nano-arrays. , 2008, , .		3
51	Optical Control through Light Transmission. Optics and Photonics News, 2011, 22, 52.	0.5	3
52	Limitations and improvements upon the two-level approximation for molecular nonlinear optics. Proceedings of SPIE, 2011, , .	0.8	3
53	Laser conferral of a directed character to near-field energy transfer. Laser Physics, 2009, 19, 125-128.	1.2	2
54	Optically Controlled Energy Transfer in Stacked and Coplanar Polycyclic Chromophores. Journal of Physical Chemistry Letters, 2010, 1, 2705-2708.	4.6	2

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55	Sculpting optical energy landscapes for multi-particle nanoscale assembly. , 2014, , .		2
56	On the viability of achieving chiral separation through the optical manipulation of molecules. Proceedings of SPIE, 2015, , .	0.8	2
57	Symmetry analysis of Raman scattering mediated by neighboring molecules. Journal of Chemical Physics, 2016, 145, 184301.	3.0	2
58	Nonlinear energy pooling in nanophotonic materials. , 2004, , .		1
59	Nanoparticle manipulation through inter-particle optical forces and torques. , 2005, 5930, 583.		1
60	Optical ordering of nanoparticles trapped by Laguerre-Gaussian laser modes. , 2006, , .		1
61	Energy migration in molecular assemblies: the characterisation and differentiation of two-photon mechanisms. , 2006, , .		1
62	The optical control of electronic energy transfer through single and dual auxiliary beams. , 2008, , .		1
63	Nonlinear optical techniques for improved data capture in fluorescence microscopy and imaging. Proceedings of SPIE, 2010, , .	0.8	1
64	Optical transistor action by nonlinear coupling of stimulated emission and coherent scattering. , 2010, , .		1
65	Controlling nanoscale optical emission with off-resonant laser light. Proceedings of SPIE, 2010, , .	0.8	1
66	Nanoarrays for the generation of complex optical wave-forms. , 2014, , .		1
67	Principles of vortex light generation from electronically excited nanoscale arrays. , 2014, , .		1
68	Quantum issues with structured light. Proceedings of SPIE, 2016, , .	0.8	1
69	Chiral separation and twin-beam photonics. , 2016, , .		1
70	Electronic coupling mechanisms and characteristics for optically nonlinear photoactive nanomaterials. , 2004, , .		0
71	All-optical switching based on optical control of energy transfer between thin-film layers. Proceedings of SPIE, 2008, , .	0.8	0
72	London force and energy transportation between interfacial surfaces. , 2008, , .		0

#	ARTICLE	IF	CITATIONS
73	Resonance energy transfer and interface forces: quantum electrodynamical analysis. , 2008, , .		0
74	Controlling the localization and migration of optical excitation. , 2012, , .		0
75	Near-field manipulation of interparticle forces through resonant absorption, optical binding, and dispersion forces. Proceedings of SPIE, 2013, , .	0.8	0
76	On the detection of characteristic optical emission from electronically coupled nanoemitters. , 2013, , .		0
77	Optical vortex mode generation by nanoarrays with a tailored geometry. Proceedings of SPIE, 2014, , .	0.8	0
78	Engaging new dimensions in nonlinear optical spectroscopy using auxiliary beams of light. Proceedings of SPIE, 2014, , .	0.8	0
79	Discriminatory effects in the optical binding of chiral nanoparticles. Proceedings of SPIE, 2015, , .	0.8	0
80	Advanced electrodynamic mechanisms for the nanoscale control of light by light. , 2015, , .		0
81	On the emergence of Raman signals characterizing multicenter nanoscale interactions. , 2016, , .		0
82	Developments in the Photonic Theory of Fluorescence. Reviews in Fluorescence, 2016, , 235-268.	0.5	0