Trevor M Benson

List of Publications by Year
in descending order

73 papers	2,313 citations	331259 21 h-index	205818 48 g-index
74 all docs	74 docs citations	74 times ranked	1774 citing authors

#	Article	IF	Citations
1	A Fast Converging Resonance-Free Global Multi-Trace Method for Scattering by Partially Coated Composite Structures. IEEE Transactions on Antennas and Propagation, 2022, 70, 9534-9543.	3.1	6
2	Modeling of Resonant Tunneling Diode Oscillators Based on the Time-Domain Boundary Element Method. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2022, 7, 161-167.	1.4	2
3	Evaluating the cytotoxicity of Geâ€“Sbâ€“Se chalcogenide glass optical fibres on 3T3 mouse fibroblasts. RSC Advances, 2021, 11, 8682-8693.	1.7	5
4	Gain-switched Dy³⁺:ZBLAN fiber laser operating around 3 Î¼m. JPhys Photonics, 2020, 2, 014003.	2.2	15
5	Impact of In Situ Radome Lightning Diverter Strips on Antenna Performance. IEEE Transactions on Antennas and Propagation, 2020, 68, 7287-7296.	3.1	8
6	An Effective Stretched Coordinate TLM-PML Suitable for Analyzing Planar Periodic Structures. IEEE Microwave and Wireless Components Letters, 2020, 30, 725-728.	2.0	0
7	Bright Mid-Infrared (MIR) Photoluminescence Sources and their Application in Imaging and Sensing. , 2020, , .		1
8	Experimental Investigation of Actively Q-Switched Er3+:ZBLAN Fiber Laser Operating at around 2.8 Âµm. Sensors, 2020, 20, 4642.	2.1	12
9	Stretchedâ€coordinate PML in 2D TLM simulations. IET Science, Measurement and Technology, 2020, 14, 272-277.	0.9	0
10	Milliwatt-Level Spontaneous Emission Across the 3.5â€“8 Âµm Spectral Region from Pr3+ Doped Selenide Chalcogenide Fiber Pumped with a Laser Diode. Applied Sciences (Switzerland), 2020, 10, 539.	1.3	20
11	Time-Domain Modelling of Solid State RF Receiver Protection Systems. , 2020, , .		0
12	Low galliumâ€content, dysprosium <scp>III</scp>â€doped, Geâ€“Asâ€“Gaâ€“Se chalcogenide glasses for active midâ€infrared fiber optics. Journal of the American Ceramic Society, 2019, 102, 195-206.	1.9	9
13	Generating Radome Geometries for Full Lightning Protection Studies. , 2019, , .		5
14	Experimental observation of gain in a resonantly pumped Pr3+-doped chalcogenide glass mid-infrared fibre amplifier notwithstanding the signal excited-state absorption. Scientific Reports, 2019, 9, 11426.	1.6	16
15	Electromagnetic analysis of the lasing thresholds of hybrid plasmon modes of a silver tube nanolaser with active core and active shell. Beilstein Journal of Nanotechnology, 2019, 10, 294-304.	1.5	28
16	Why elliptic microcavity lasers emit light on bow-tie-like modes instead of whispering-gallery-like modes. Optics Communications, 2019, 439, 112-117.	1.0	24
17	Experimental and numerical investigation to rationalize both near-infrared and mid-infrared spontaneous emission inÂPr3+ doped selenide-chalcogenide fiber. Journal of Luminescence, 2019, 209, 14-20.	1.5	9
18	Holistic Appraisal of Modeling Installed Antennas for Aerospace Applications. IEEE Transactions on Antennas and Propagation, 2019, 67, 1396-1409.	3.1	10

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19	A refractive index sensor based on a D-shaped photonic crystal fiber with a nanoscale gold belt. Optical and Quantum Electronics, 2018, 50, 1.	1.5	46
20	Compositional dependence of crystallization in Geâ€“Sbâ€“Se glasses relevant to optical fiber making. Journal of the American Ceramic Society, 2018, 101, 208-219.	1.9	21
21	Comparative Modeling of Infrared Fiber Lasers. Photonics, 2018, 5, 48.	0.9	11
22	Numerical simulation of electromagnetic coupling in explicitly meshed wiring looms and bundles. IET Science, Measurement and Technology, 2018, 12, 176-181.	0.9	4
23	Experimental Investigation of Mid-Infrared Laser Action From Dy³⁺ Doped Fluorozirconate Fiber. IEEE Photonics Technology Letters, 2018, 30, 1083-1086.	1.3	26
24	Complexity Reduction of Multiscale UTLM Cell Clusters. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2017, 2, 18-28.	1.4	9
25	Promising emission behavior in Pr 3+ /In selenide-chalcogenide-glass small-core step index fiber (SIF). Optical Materials, 2017, 67, 98-107.	1.7	21
26	Coupled Electrothermal Two-Dimensional Model for Lightning Strike Prediction and Thermal Modeling Using the TLM Method. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2017, 2, 38-48.	1.4	6
27	Extracting modal field profiles from 3D unstructured transmission line modelling meshes for use as sources and observers. IET Science, Measurement and Technology, 2017, 11, 780-785.	0.9	8
28	Dy³⁺â€Doped Selenide Chalcogenide Glasses: Influence of Dy³⁺ Dopantâ€Additive and Containment. Journal of the American Ceramic Society, 2016, 99, 2283-2291.	1.9	10
29	Broadband terahertz spectroscopy of chalcogenide glass As<inf>30</inf>Se<inf>30</inf>Te<inf>40</inf>. , 2016, , .		0
30	Predictive, Miniature Coâ€Extrusion of Multilayered Glass Fiberâ€Optic Preforms. Journal of the American Ceramic Society, 2016, 99, 106-114.	1.9	5
31	Extended Capability Models for Carbon Fiber Composite (CFC) Panels in the Unstructured Transmission Line Modeling (UTLM) Method. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 811-819.	1.4	16
32	Effect of submicron deformations on the transmission of all-solid photonic bandgap fibre. Optical and Quantum Electronics, 2016, 48, 1.	1.5	0
33	Toward Mid-Infrared, Subdiffraction, Spectral-Mapping of Human Cells and Tissue: SNIM (Scanning) Tj ETQq1 1 0.784314 rgBT /Overlo	2.7	8
34	A note on material losses in unstructured transmission line modeling. Microwave and Optical Technology Letters, 2015, 57, 2218-2222.	0.9	4
35	Modernizing electromagnetics education: Incorporating a coursework element into an elementary exam-oriented electromagnetics module. , 2015, , .		1
36	Dispersion in the 2D unstructured transmission line modelling (UTLM) method. , 2015, , .		0

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37	Mid-infrared photoluminescence in small-core fiber of praseodymium-ion doped selenide-based chalcogenide glass. Optical Materials Express, 2015, 5, 870.	1.6	58
38	Photonic biosensor chip for early-stage cancer diagnosis. , 2015, , .		2
39	Low loss Ge-As-Se chalcogenide glass fiber, fabricated using extruded preform, for mid-infrared photonics. Optical Materials Express, 2015, 5, 1722.	1.6	79
40	Fabrication of stable, low optical loss rib-waveguides via embossing of sputtered chalcogenide glass-film on glass-chip. Optical and Quantum Electronics, 2015, 47, 351-361.	1.5	12
41	A novel photonic crystal band-pass filter using degenerate modes of a point-defect microcavity for terahertz communication systems. Microwave and Optical Technology Letters, 2014, 56, 792-797.	0.9	12
42	Resonant frequency and Q factor extraction from temporal responses of ultraâ€high Q optical resonators. IET Science, Measurement and Technology, 2014, 8, 277-284.	0.9	2
43	Mid-infrared integrated optics: versatile hot embossing of mid-infrared glasses for on-chip planar waveguides for molecular sensing. Optical Engineering, 2014, 53, 071824.	0.5	18
44	Numerical investigation of mid-infrared emission from Pr $$^{3+}$$ 3 + doped GeAsGaSe fibre. Optical and Quantum Electronics, 2014, 46, 593-602.	1.5	4
45	The local environment of Dy3+in selenium-rich chalcogenide glasses. RSC Advances, 2014, 4, 42364-42371.	1.7	8
46	Mid-infrared supercontinuum covering the 1.4â€“13.3â€…Î¼m molecular fingerprint region using ultra-high NA chalcogenide step-index fibre. Nature Photonics, 2014, 8, 830-834.	15.6	811
47	First Identification of Rareâ€Earth Oxide Nucleation in Chalcogenide Glasses and Implications for Fabrication of Midâ€Infrared Active Fibers. Journal of the American Ceramic Society, 2014, 97, 432-441.	1.9	13
48	Design of omnidirectional reflectors based on a cascaded one-dimensional photonic crystal structure. Journal of Modern Optics, 2013, 60, 1804-1812.	0.6	15
49	Assessment of accuracy and runtime trade-offs in unstructured TLM meshes for electromagnetic simulations. , 2013, , .		0
50	Coâ€Extrusion of Multilayer Glass Fiberâ€Optic Preforms: Prediction of Layer Dimensions in the Extrudate. Journal of the American Ceramic Society, 2013, 96, 118-124.	1.9	16
51	Efficient broadband simulations for thin optical structures. Optical and Quantum Electronics, 2013, 45, 343-348.	1.5	6
52	Explicit Solution of the Time Domain Volume Integral Equation Using a Stable Predictor-Corrector Scheme. IEEE Transactions on Antennas and Propagation, 2012, 60, 5203-5214.	3.1	77
53	Special issue of OQEL on silicon photonics and nanophotonics. Optical and Quantum Electronics, 2012, 44, 503-504.	1.5	0
54	Binary Grating of Subwavelength Silver and Quantum Wires as a Photonic-Plasmonic Lasing Platform With Nanoscale Elements. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1839-1846.	1.9	53

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55	The Influence of Dysprosium Addition on the Crystallization Behavior of a Chalcogenide Selenide Glass Close to the Fiber Drawing Temperature. Journal of the American Ceramic Society, 2012, 95, 3834-3841.	1.9	21
56	Crystallization behavior of Dy3+-doped selenide glasses. Journal of Non-Crystalline Solids, 2011, 357, 2453-2462.	1.5	39
57	Optical Theorem Helps Understand Thresholds of Lasing in Microcavities With Active Regions. IEEE Journal of Quantum Electronics, 2011, 47, 20-30.	1.0	93
58	Progress in rare-earth-doped mid-infrared fiber lasers. Optics Express, 2010, 18, 26704.	1.7	269
59	Low-threshold lasing eigenmodes of an infinite periodic chain of quantum wires. Optics Letters, 2010, 35, 3634.	1.7	55
60	Implicit Element Clustering for Tetrahedral Transmission-Line Modeling (TLM). IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 2005-2014.	2.9	23
61	Femtosecond Laser Processing as an Advantageous 3-D Technology for the Fabrication of Highly Nonlinear Chip-Scale Photonic Devices. Journal of Lightwave Technology, 2009, 27, 3275-3282.	2.7	9
62	A Simple Full-Vectorial Finite-Difference Equation for Arbitrarily Positioned Dielectric Interfaces. IEEE Photonics Technology Letters, 2009, 21, 1505-1507.	1.3	0
63	Solid Microstructured Chalcogenide Glass Optical Fibers for the Near- and Mid-Infrared Spectral Regions. IEEE Photonics Technology Letters, 2009, 21, 1804-1806.	1.3	30
64	Fourth-order accurate sub-sampling for finite-difference analysis of surface plasmon metallic waveguides. Microwave and Optical Technology Letters, 2008, 50, 995-1000.	0.9	5
65	Lasing frequencies and thresholds of the dipole supermodes in an active microdisk concentrically coupled with a passive microring. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 2884.	0.8	35
66	Efficient Analysis and Design of Low-Loss Whispering-Gallery-Mode Coupled Resonator Optical Waveguide Bends. Journal of Lightwave Technology, 2007, 25, 2487-2494.	2.7	33
67	Finite Difference Beam Propagation Method Applied to Photonic Crystal Fibres. , 2007, , .		0
68	Directional Emission, Increased Free Spectral Range, and Mode Q-Factors in 2-D Wavelength-Scale Optical Microcavity Structures. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1175-1182.	1.9	68
69	Threshold reduction in a cyclic photonic molecule laser composed of identical microdisks with whispering-gallery modes. Optics Letters, 2006, 31, 921.	1.7	52
70	Efficient Time Domain Modeling of Rib Waveguide RF Modulators. Journal of Lightwave Technology, 2006, 24, 5044-5053.	2.7	5
71	Subsampling of fine features in finite-difference frequency-domain simulations. Microwave and Optical Technology Letters, 2005, 44, 95-101.	0.9	9
72	Time domain simulation in photonics: A comparison of nonlinear dispersive polarisation models. Optical and Quantum Electronics, 2005, 37, 3-24.	1.5	15

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73	The 2002 International Workshop on Optical Waveguide Theory and Numerical Modelling. Optical and Quantum Electronics, 2003, 35, 295-296.	1.5	0