

Richard Mildren

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

120 papers	2,250 citations	25 h-index	42 g-index
169 ext. papers	2,843 ext. citations	3.3 avg, IF	5.13 L-index

#	Paper	IF	Citations
120	Spectral synthesis of multimode lasers to the Fourier limit in integrated Fabry-Berot diamond resonators. <i>Optica</i> , 2022 , 9, 317	8.6	4
119	Integrated room temperature single-photon source for quantum key distribution.. <i>Optics Letters</i> , 2022 , 47, 1673-1676	3	1
118	Tunable spectral squeezers based on monolithically integrated diamond Raman resonators. <i>Applied Physics Letters</i> , 2022 , 120, 151101	3.4	1
117	Enhanced stimulated Brillouin scattering utilizing Raman conversion in diamond. <i>Applied Physics Letters</i> , 2022 , 120, 181103	3.4	4
116	Design and analysis of Pound-Drever-Hall-based free-space and fiber-based frequency discriminators: A comparison. <i>Infrared Physics and Technology</i> , 2022 , 124, 104219	2.7	
115	Comprehensive Thermal Analysis of Diamond in a High-Power Raman Cavity Based on FVM-FEM Coupled Method. <i>Nanomaterials</i> , 2021 , 11,	5.4	6
114	Cascaded Stokes polarization conversion in cubic Raman crystals. <i>Optics Express</i> , 2021 , 29, 291-304	3.3	1
113	Modelling and characterisation of continuous wave resonantly pumped diamond Raman lasers. <i>Optics Express</i> , 2021 , 29, 18427-18436	3.3	1
112	Absorptive laser threshold magnetometry: combining visible diamond Raman lasers and nitrogen-vacancy centres. <i>Materials for Quantum Technology</i> , 2021 , 1, 025003		1
111	Morphogenesis of mesoscopic surface patterns formed in polarized two-photon etching of diamond. <i>Carbon</i> , 2021 , 173, 271-285	10.4	1
110	Quantum-randomized polarization of laser pulses derived from zero-point diamond motion. <i>Optics Express</i> , 2021 , 29, 894-902	3.3	
109	Widely-tunable single-frequency diamond Raman laser. <i>Optics Express</i> , 2021 , 29, 29449-29457	3.3	7
108	Diamond Brillouin laser in the visible. <i>APL Photonics</i> , 2020 , 5, 031301	5.2	18
107	Broadly tunable linewidth-invariant Raman Stokes comb for selective resonance photoionization. <i>Optics Express</i> , 2020 , 28, 8589-8600	3.3	4
106	Analysis of a thermal lens in a diamond Raman laser operating at 1.1 kW output power. <i>Optics Express</i> , 2020 , 28, 15232-15239	3.3	9
105	Diamond sodium guide star laser. <i>Optics Letters</i> , 2020 , 45, 1898-1901	3	19
104	Enhanced etch rate of deep-UV laser induced etching of diamond in low pressure conditions. <i>Applied Physics Letters</i> , 2020 , 117, 111601	3.4	1

103	Generalised theory of polarisation modes for resonators containing birefringence and anisotropic gain. <i>Optics Express</i> , 2019 , 27, 17209-17220	3.3	4
102	Single-frequency 620 nm diamond laser at high power, stabilized via harmonic self-suppression and spatial-hole-burning-free gain. <i>Optics Letters</i> , 2019 , 44, 839-842	3	24
101	1.2 kW quasi-steady-state diamond Raman laser pumped by an M = 15 beam. <i>Optics Letters</i> , 2019 , 44, 2506-2509	3	20
100	Continuously tunable diamond Raman laser for resonance laser ionization. <i>Optics Letters</i> , 2019 , 44, 3924-3927	3.3	7
99	Single-longitudinal-mode diamond laser stabilization using polarization-dependent Raman gain. <i>OSA Continuum</i> , 2019 , 2, 1028	1.4	9
98	Photochemical Etching of Carbonyl Groups from a Carbon Matrix: The (001) Diamond Surface. <i>Physical Review Letters</i> , 2019 , 122, 016802	7.4	3
97	High Power Diamond Raman Lasers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2018 , 24, 1-14	3.8	33
96	Large brightness enhancement for quasi-continuous beams by diamond Raman laser conversion. <i>Optics Letters</i> , 2018 , 43, 563-566	3	21
95	Wavelength diversification of high-power external cavity diamond Raman lasers using intracavity harmonic generation. <i>Optics Express</i> , 2018 , 26, 1930-1941	3.3	11
94	302 W quasi-continuous cascaded diamond Raman laser at 1.5 microns with large brightness enhancement. <i>Optics Express</i> , 2018 , 26, 19797-19803	3.3	17
93	A 900-Watt quasi-CW diamond Raman laser 2018 ,		1
92	Demonstration of 2.5 J, 10 Hz, nanosecond laser beam combination system based on non-collinear Brillouin amplification. <i>Optics Express</i> , 2018 , 26, 32717-32727	3.3	10
91	Stimulated Brillouin scattering materials, experimental design and applications: A review. <i>Optical Materials</i> , 2018 , 75, 626-645	3.3	48
90	Diamond-based concept for combining beams at very high average powers. <i>Laser and Photonics Reviews</i> , 2017 , 11, 1600130	8.3	11
89	Cascaded continuous-wave Raman frequency conversion in external-cavity diamond lasers 2017 ,		1
88	Single-longitudinal-mode ring diamond Raman laser. <i>Optics Letters</i> , 2017 , 42, 1229-1232	3	17
87	Polarization conversion in cubic Raman crystals. <i>Scientific Reports</i> , 2017 , 7, 41702	4.9	6
86	High-power continuous-wave Raman frequency conversion from 1.06 μm to 1.49 μm in diamond. <i>Optics Express</i> , 2017 , 25, 749-757	3.3	28

85	Birefringence and piezo-Raman analysis of single crystal CVD diamond and effects on Raman laser performance. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2016 , 33, B56	1.7	14
84	High-gain 87 cm ⁻¹ Raman line of KYW and its impact on continuous-wave Raman laser operation. <i>Optics Express</i> , 2016 , 24, 21463-73	3.3	6
83	Single longitudinal mode diamond Raman laser in the eye-safe spectral region for water vapor detection. <i>Optics Express</i> , 2016 , 24, 27812-27820	3.3	28
82	Intrinsically stable high-power single longitudinal mode laser using spatial hole burning free gain. <i>Optica</i> , 2016 , 3, 876	8.6	35
81	Efficient diamond Raman laser generating 65 fs pulses. <i>Optics Express</i> , 2015 , 23, 15504-13	3.3	23
80	Modelling and optimization of continuous-wave external cavity Raman lasers. <i>Optics Express</i> , 2015 , 23, 8590-602	3.3	24
79	SRS in the strong-focusing regime for Raman amplifiers. <i>Optics Express</i> , 2015 , 23, 15012-20	3.3	7
78	PumpProbe Measurements of the Raman Gain Coefficient in Crystals Using Multi-Longitudinal-Mode Beams. <i>IEEE Journal of Quantum Electronics</i> , 2015 , 51, 1-8	2	17
77	Efficient Raman frequency conversion of high-power fiber lasers in diamond. <i>Laser and Photonics Reviews</i> , 2015 , 9, 405-411	8.3	55
76	Simultaneous brightness enhancement and wavelength conversion to the eye-safe region in a high-power diamond Raman laser. <i>Laser and Photonics Reviews</i> , 2014 , 8, L37-L41	8.3	41
75	Ti:sapphire-pumped diamond Raman laser with sub-100-fs pulse duration. <i>Optics Letters</i> , 2014 , 39, 2975-8		16
74	Multi-octave frequency comb generation by (B)-nonlinear optical processes in CVD diamond at low temperatures. <i>Laser Physics Letters</i> , 2014 , 11, 086101	1.5	16
73	Nanostructuring and oxidation of diamond by two-photon ultraviolet surface excitation: An XPS and NEXAFS study. <i>Physical Review B</i> , 2014 , 89,	3.3	12
72	Non-Collinear Beam Combining of Kilowatt Beams in a Diamond Raman Amplifier 2014 ,		2
71	Diamond Raman laser with continuously tunable output from 3.38 to 3.80 μ m. <i>Optics Letters</i> , 2014 , 39, 4037-40	3	47
70	Highly efficient picosecond diamond Raman laser at 1240 and 1485 nm. <i>Optics Express</i> , 2014 , 22, 3325-33.3	3.3	38
69	Thermal lens evolution and compensation in a high power KGW Raman laser. <i>Optics Express</i> , 2014 , 22, 6707-18	3.3	6
68	Investigating diamond Raman lasers at the 100 W level using quasi-continuous-wave pumping. <i>Optics Letters</i> , 2014 , 39, 4152-5	3	41

67	Mid-infrared diamond Raman laser with tuneable output 2014 ,		2
66	High power tungstate-crystal Raman laser operating in the strong thermal lensing regime. <i>Optics Express</i> , 2014 , 22, 707-15	3.3	12
65	An investigation into the inhibitory effect of ultraviolet radiation on <i>Trichophyton rubrum</i> . <i>Lasers in Medical Science</i> , 2014 , 29, 157-63	3.1	12
64	Two-photon polarization-selective etching of emergent nano-structures on diamond surfaces. <i>Nature Communications</i> , 2014 , 5, 3341	17.4	24
63	An efficient 14.5 W diamond Raman laser at high pulse repetition rate with first (1240 nm) and second (1485 nm) Stokes output. <i>Laser Physics Letters</i> , 2013 , 10, 105801	1.5	23
62	Diamond Raman Laser Design and Performance 2013 , 239-276		24
61	High average power (11 W) eye-safe diamond Raman laser 2012 ,		4
60	Recent Progress in Diamond Raman Lasers. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1395, 1		
59	Continuous-wave wavelength conversion for high-power applications using an external cavity diamond Raman laser. <i>Optics Letters</i> , 2012 , 37, 2790-2	3	49
58	Deep ultraviolet diamond Raman laser. <i>Optics Express</i> , 2011 , 19, 10857-63	3.3	59
57	Efficient conversion of a 1.064 μ m Nd:YAG laser to the eye-safe region using a diamond Raman laser. <i>Optics Express</i> , 2011 , 19, 23554-60	3.3	51
56	Side-pumped crystalline Raman laser. <i>Optics Letters</i> , 2011 , 36, 235-7	3	5
55	Characteristics of 2-photon ultraviolet laser etching of diamond. <i>Optical Materials Express</i> , 2011 , 1, 576	2.6	19
54	Efficient 1064 nm conversion to the eye-safe region using an external cavity diamond Raman laser 2011 ,		1
53	Dynamics of the Electrical Breakdown Phase of a Pulsed Dielectric Barrier Discharge in Neon. <i>IEEE Transactions on Plasma Science</i> , 2011 , 39, 2162-2163	1.3	1
52	Streak Images of the Breakdown Phase of a Pulsed Dielectric Barrier Discharge in Nitrogen. <i>IEEE Transactions on Plasma Science</i> , 2011 , 39, 2132-2133	1.3	
51	Mode-locked picosecond diamond Raman laser. <i>Optics Letters</i> , 2010 , 35, 556-8	3	45
50	1240 nm diamond Raman laser operating near the quantum limit. <i>Optics Letters</i> , 2010 , 35, 3874-6	3	90

49	KGW and diamond picosecond visible Raman lasers 2010 ,		1
48	The Outlook for Diamond in Raman Laser Applications. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1203, 1		1
47	Highly efficient diamond Raman laser. <i>Optics Letters</i> , 2009 , 34, 2811-3	3	74
46	All-solid-state parametric Raman anti-Stokes laser at 508 nm. <i>Optics Express</i> , 2009 , 17, 810-8	3.3	25
45	Increased wavelength options in the visible and ultraviolet for Raman lasers operating on dual Raman modes. <i>Optics Express</i> , 2008 , 16, 3261-72	3.3	9
44	An investigation into Raman mode locking of fiber lasers. <i>Optics Express</i> , 2008 , 16, 5277-89	3.3	6
43	CVD-diamond external cavity Raman laser at 573 nm. <i>Optics Express</i> , 2008 , 16, 18950-5	3.3	85
42	Wavelength-versatile visible and UV sources based on crystalline Raman lasers. <i>Progress in Quantum Electronics</i> , 2008 , 32, 121-158	9.1	120
41	Optical field dynamics in a wavelength-versatile, all-solid-state intracavity cascaded pulsed Raman laser. <i>Applied Physics B: Lasers and Optics</i> , 2008 , 93, 507-513	1.9	21
40	Solid-state Raman laser generating discretely tunable ultraviolet between 266 and 320 nm. <i>Optics Letters</i> , 2007 , 32, 814-6	3	18
39	Mode locking using stimulated Raman scattering. <i>Optics Express</i> , 2007 , 15, 8170-5	3.3	8
38	SURFACE CLEANING OF OPTICAL MATERIALS USING NOVEL VUV SOURCES 2007 , 243-256		1
37	Simple method enabling pulse on command from high power, high frequency lasers. <i>Review of Scientific Instruments</i> , 2006 , 77, 093103	1.7	
36	Anomalous discharge mode in a kinetically-enhanced copper vapor laser: visualization by "Hook" method. <i>IEEE Transactions on Plasma Science</i> , 2005 , 33, 376-377	1.3	
35	Laser design and energy dynamics in a wavelength-versatile, all-solid-state intracavity cascaded Raman laser 2005 ,		1
34	Discretely tunable, all-solid-state laser in the green, yellow, and red. <i>Optics Letters</i> , 2005 , 30, 1500-2	3	49
33	Reply to comment on "Microstructured polymer fiber laser" <i>Optics Letters</i> , 2005 , 30, 1829	3	3
32	Second generation kinetically enhanced copper vapor lasers: recent advances 2005 ,		2

31	Investigation of the pump wavelength influence on pulsed laser pumped Alexandrite lasers. <i>Applied Physics B: Lasers and Optics</i> , 2005 , 81, 637-644	1.9	8
30	Dynamics of a homogeneous dielectric barrier discharge in xenon excited by short-voltage pulses. <i>IEEE Transactions on Plasma Science</i> , 2005 , 33, 330-331	1.3	6
29	Advances in copper laser technology: kinetic enhancement. <i>Progress in Quantum Electronics</i> , 2004 , 28, 165-196	9.1	45
28	High-pressure (>11bar) dielectric barrier discharge lamps generating short pulses of high-peak power vacuum ultraviolet radiation. <i>Journal Physics D: Applied Physics</i> , 2004 , 37, 2399-2407	3	55
27	Efficient, all-solid-state, Raman laser in the yellow, orange and red. <i>Optics Express</i> , 2004 , 12, 785-90	3.3	78
26	Microstructured polymer fiber laser. <i>Optics Letters</i> , 2004 , 29, 1882-4	3	21
25	Pulsed VUV sources and their application to surface cleaning of optical materials 2004 ,		4
24	Optical microscopy imaging and image-analysis issues in laser cleaning. <i>Applied Physics A: Materials Science and Processing</i> , 2003 , 77, 847-853	2.6	3
23	Computer modelling of a short-pulse excited dielectric barrier discharge xenon excimer lamp (λ 72 nm). <i>Journal Physics D: Applied Physics</i> , 2003 , 36, 19-33	3	78
22	Compact and efficient kinetically enhanced copper-vapor lasers of high (100-W) average power. <i>Optics Letters</i> , 2003 , 28, 1936-8	3	9
21	. <i>IEEE Journal of Quantum Electronics</i> , 2003 , 39, 592-599	2	4
20	Input/output power scaling of a compact (0.8 L) kinetically enhanced copper-vapor laser. <i>IEEE Journal of Quantum Electronics</i> , 2003 , 39, 773-777	2	2
19	Computer modeling of electrical breakdown in a pulsed dielectric barrier discharge in xenon. <i>IEEE Transactions on Plasma Science</i> , 2002 , 30, 154-155	1.3	16
18	Visible and VUV emission from a xenon dielectric barrier discharge using pulsed and sinusoidal voltage excitation waveforms. <i>IEEE Transactions on Plasma Science</i> , 2002 , 30, 192-193	1.3	25
17	Plasma kinetics issues for repetition rate scaling of kinetically enhanced copper vapor lasers 2001 ,		4
16	Visible and VUV images of dielectric barrier discharges in Xe. <i>Journal Physics D: Applied Physics</i> , 2001 , 34, 3378-3382	3	44
15	Enhanced performance of a dielectric barrier discharge lamp using short-pulsed excitation. <i>Journal Physics D: Applied Physics</i> , 2001 , 34, L1-L6	3	110
14	Exploring the explosive ablation regime of metals in nanosecond micromachining 2000 , 3885, 453		3

13	Electron energy distribution functions for modelling the plasma kinetics in dielectric barrier discharges. <i>Journal Physics D: Applied Physics</i> , 2000 , 33, L99-L103	3	23
12	Modeling the plasma kinetics in a kinetically enhanced copper vapor laser utilizing HCl+H/sub 2/ admixtures. <i>IEEE Journal of Quantum Electronics</i> , 2000 , 36, 438-449	2	19
11	The role of buffer-gas flow in copper HybriD lasers. <i>IEEE Journal of Quantum Electronics</i> , 2000 , 36, 1145-1150	2	
10	Afterglow ground-state copper density behavior in kinetically enhanced copper vapor lasers. <i>IEEE Journal of Quantum Electronics</i> , 1998 , 34, 2275-2278	2	10
9	Study of second harmonic emissions for characterization of laser-plasma X-ray sources. <i>Laser and Particle Beams</i> , 1998 , 16, 397-404	0.9	10
8	A 100 W, near diffraction limited, copper HybriD laser oscillator. <i>Journal Physics D: Applied Physics</i> , 1998 , 31, 1812-1816	3	10
7	Ground-state depletion mechanisms in pulsed barium vapor lasers. <i>Journal of Applied Physics</i> , 1997 , 82, 2039-2048	2.5	8
6	Hook method: recovery of density information from interferograms distorted by large spatial gradients. <i>Applied Optics</i> , 1997 , 36, 4526-34	1.7	4
5	Evolution of excited and ground-state species during burst-mode excitation of a barium vapor laser. <i>IEEE Journal of Quantum Electronics</i> , 1997 , 33, 1717-1726	2	3
4	Characteristics of copper HybriD-type lasers which use HCl reactive gas. <i>Optical and Quantum Electronics</i> , 1997 , 29, 991-998	2.4	3
3	Limiting factors in PRF scaling of barium vapour lasers. <i>Optics Communications</i> , 1997 , 137, 299-302	2	5
2	The Effects of Impurities on Metal Vapour Laser Performance 1996 , 161-168		
1	The effect of hydrogen additive on population densities in the afterglow of barium vapour lasers. <i>Optics Communications</i> , 1995 , 120, 112-120	2	13