

Mehdi Alouini

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.

132
papers

1,379
citations

20
h-index

30
g-index

188
ext. papers

1,816
ext. citations

2.7
avg, IF

4.22
L-index

#	Paper	IF	Citations
132	Electrically pumped shot-noise limited class A VECSEL at telecom wavelength. <i>Optics Letters</i> , 2021 , 46, 2465-2468	3	0
131	Label-free microscopy of mitotic chromosomes using the polarization orthogonality breaking technique. <i>Biomedical Optics Express</i> , 2021 , 12, 5290-5304	3.5	1
130	Imaging through fog using quadrature lock-in discrimination. <i>OSA Continuum</i> , 2021 , 4, 1649	1.4	1
129	Quantum dot membrane external-cavity surface-emitting laser at 1.5 μ m. <i>Applied Physics Letters</i> , 2021 , 118, 231101	3.4	1
128	Low Phase Noise Direct-Modulation Optoelectronic Oscillator. <i>Journal of Lightwave Technology</i> , 2021 , 1-1	4	2
127	Low Threshold 1550-nm Emitting QD Optically Pumped VCSEL. <i>IEEE Photonics Technology Letters</i> , 2021 , 33, 69-72	2.2	2
126	High-Power 760 nm VECSEL Based on Quantum Dot Gain Mirror. <i>IEEE Journal of Quantum Electronics</i> , 2020 , 56, 1-4	2	4
125	An all-optical technique enables instantaneous single-shot demodulation of images at high frequency. <i>Nature Communications</i> , 2020 , 11, 549	17.4	8
124	CW Operation of a Tunable 1550-nm VCSEL Integrating Liquid-Crystal Microcells. <i>IEEE Photonics Technology Letters</i> , 2020 , 32, 391-394	2.2	6
123	Delay-induced instability in phase-locked dual-polarization distributed-feedback fiber lasers. <i>Physical Review A</i> , 2020 , 101,	2.6	3
122	Orthogonality-breaking polarimetric sensing modalities for selective polarization imaging. <i>Optics Letters</i> , 2020 , 45, 1423-1426	3	1
121	Modeling the Lamb mode-coupling constant of quantum well semiconductor lasers. <i>Optics Express</i> , 2020 , 28, 21407-21419	3.3	
120	Brillouin Assisted Optoelectronic Self-Narrowing of Laser Linewidth. <i>IEEE Photonics Technology Letters</i> , 2019 , 31, 975-978	2.2	1
119	Microwave signal switching on a silicon photonic chip. <i>Scientific Reports</i> , 2019 , 9, 11166	4.9	1
118	InAs/InP quantum dot VECSEL emitting at 1.5 μ m. <i>Applied Physics Letters</i> , 2019 , 115, 171105	3.4	9
117	Characterization of a polarimetric infrared imager based on the orthogonality breaking technique. <i>Optical Engineering</i> , 2019 , 58, 1	1.1	2
116	Direct measurement of the spectral dependence of Lamb coupling constant in a dual frequency quantum well-based VECSEL. <i>Optics Express</i> , 2019 , 27, 21083-21091	3.3	3

115	Beat note stabilization in dual-polarization DFB fiber lasers by an optical phase-locked loop. <i>Optics Express</i> , 2018 , 26, 3483-3488	3-3	8
114	VSPIN: a new model relying on the vectorial description of the laser field for predicting the polarization dynamics of spin-injected V(e)CSELs. <i>Optics Express</i> , 2018 , 26, 6739-6757	3-3	11
113	Analytical modeling of dual-frequency solid-state lasers including a buffer reservoir for noise cancellation. <i>Optics Express</i> , 2018 , 26, 8805-8820	3-3	1
112	Intensity noise cancellation in solid-state laser at 1.5 μm using SHG depletion as a buffer reservoir. <i>Applied Optics</i> , 2018 , 57, 1524-1529	1-7	5
111	Liquid crystal-based tunable photodetector operating in the telecom C-band. <i>Optics Express</i> , 2018 , 26, 25952-25961	3-3	6
110	Lamb mode-coupling constant in quantum-dot semiconductor lasers. <i>Physical Review B</i> , 2018 , 98,	3-3	4
109	Hybrid opto-electronic oscillator for single-sideband microwave photonics. <i>Electronics Letters</i> , 2018 , 54, 706-708	1-1	2
108	Enhancement of VCSEL Performances Using Localized Copper Bonding Through Silicon Vias. <i>IEEE Photonics Technology Letters</i> , 2017 , 29, 1105-1108	2-2	3
107	Generation of a coherent light beam with precise and fast dynamic control of the state and degree of polarization. <i>Optics Letters</i> , 2017 , 42, 2898-2901	3	5
106	Self-stabilized optoelectronic oscillator using optical feedback on integrated heterodyne source 2017 ,		1
105	Class-A operation of an optically-pumped 1.6 μm -emitting quantum dash-based vertical-external-cavity surface-emitting laser on InP. <i>Optics Express</i> , 2017 , 25, 11760-11766	3-3	5
104	Compensation of the residual linear anisotropy of phase in a vertical-external-cavity-surface-emitting laser for spin injection. <i>Optics Letters</i> , 2017 , 42, 651-654	3	10
103	Free-space active polarimetric imager operating at 1.55 μm by orthogonality breaking sensing. <i>Optics Letters</i> , 2017 , 42, 723-726	3	10
102	Real-time imaging through strongly scattering media: seeing through turbid media, instantly. <i>Scientific Reports</i> , 2016 , 6, 25033	4-9	21
101	Investigation of the coupling between pump amplitude noise and differential phase noise in an Er,Yb:glass two-polarization dual-frequency solid-state laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2016 , 33, 589	1-7	
100	Theoretical and experimental investigation of optically spin-injected VECSEL 2016 ,		2
99	Self-Stabilized Optoelectronic Oscillator Using Frequency-Shifted Feedback and a Delay Line. <i>IEEE Photonics Technology Letters</i> , 2016 , 28, 1088-1091	2-2	9
98	Tunable optoelectronic oscillator based on an integrated heterodyne source 2016 ,		3

97	Demonstration of efficient spin injection in a CW VECSEL at RT and dynamic control of its polarization state 2016 ,		1
96	Orthogonality-breaking sensing model based on the instantaneous Stokes vector and the Mueller calculus. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2016 , 33, 434-46 ^{1.8}		6
95	Reduction of residual excess noise in class-A lasers using two-photon absorption. <i>Optics Letters</i> , 2016 , 41, 4237-40	3	3
94	Theoretical optimal modulation frequencies for scattering parameter estimation and ballistic photon filtering in diffusing media. <i>Optics Express</i> , 2016 , 24, 16066-83	3.3	5
93	Orthogonality breaking through few-mode optical fiber. <i>Applied Optics</i> , 2016 , 55, 2508-20	0.2	3
92	Mode-hopping suppression in long Brillouin fiber laser with non-resonant pumping. <i>Optics Letters</i> , 2016 , 41, 2362-5	3	7
91	In-phase and antiphase self-intensity regulated dual-frequency laser using two-photon absorption. <i>Optics Letters</i> , 2016 , 41, 2326-9	3	1
90	Adaptive polarimetric image representation for contrast optimization of a polarized beacon through fog. <i>Journal of Optics (United Kingdom)</i> , 2015 , 17, 065703	1.7	4
89	Accurate measurement of the residual birefringence in VECSEL: Towards understanding of the polarization behavior under spin-polarized pumping. <i>Optics Express</i> , 2015 , 23, 9573-88	3.3	22
88	Generalized Jones matrix method for homogeneous biaxial samples. <i>Optics Express</i> , 2015 , 23, 20428-38	3.3	3
87	Noise reduction in solid-state lasers using a SHG-based buffer reservoir. <i>Optics Letters</i> , 2015 , 40, 1149-52		13
86	Optoelectronic cross-injection locking of a dual-wavelength photonic integrated circuit for low-phase-noise millimeter-wave generation. <i>Optics Letters</i> , 2015 , 40, 3655-8	3	6
85	Full characterization of dichroic samples from a single measurement by circular polarization orthogonality breaking. <i>Optics Letters</i> , 2015 , 40, 1270-3	3	8
84	Intensity- and phase-noise correlations in a dual-frequency vertical-external-cavity surface-emitting laser operating at telecom wavelength. <i>Physical Review A</i> , 2015 , 91,	2.6	12
83	Optical fiber Sagnac interferometer for sensing scalar directional refraction: application to magnetochiral birefringence. <i>Review of Scientific Instruments</i> , 2014 , 85, 043109	1.7	
82	Phase Noise of the Radio Frequency (RF) Beatnote Generated by a Dual-Frequency VECSEL. <i>Journal of Lightwave Technology</i> , 2014 , 32, 1307-1316	4	13
81	Narrow Linewidth Tunable Terahertz Radiation By Photomixing Without Servo-Locking. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2014 , 4, 260-266	3.4	16
80	Polarimetric contrast microscopy by orthogonality breaking. <i>Journal of Optics (United Kingdom)</i> , 2014 , 16, 122001	1.7	7

79	Dual-Frequency 780-nm Ti:Sa Laser for High Spectral Purity Tunable CW THz Generation. <i>IEEE Photonics Technology Letters</i> , 2014 , 26, 1518-1521	2.2	7
78	Ultralow Noise and High-Power VECSEL for High Dynamic Range and Broadband RF/Optical Links. <i>Journal of Lightwave Technology</i> , 2014 , 32, 3489-3494	4	14
77	Buffer reservoir approach for cancellation of laser resonant noises. <i>Optics Letters</i> , 2014 , 39, 5014-7	3	9
76	Class-A dual-frequency VECSEL at telecom wavelength. <i>Optics Letters</i> , 2014 , 39, 5586-9	3	17
75	Optimal estimation in polarimetric imaging in the presence of correlated noise fluctuations. <i>Optics Express</i> , 2014 , 22, 4920-31	3-3	3
74	Dual frequency laser with two continuously and widely tunable frequencies for optical referencing of GHz to THz beatnotes. <i>Optics Express</i> , 2014 , 22, 17673-8	3-3	19
73	Long-range polarimetric imaging through fog. <i>Applied Optics</i> , 2014 , 53, 3854-65	1.7	56
72	Terahertz Optoelectronic Down-Conversion and Phase-Locking Through Four-Wave Mixing. <i>IEEE Photonics Technology Letters</i> , 2014 , 26, 1944-1947	2.2	4
71	Bridging the gap between THz and microwave photonics through optoelectronic generation of interleaved combs Invited paper 2014 ,		3
70	GHz bandwidth noise eater hybrid optical amplifier: design guidelines. <i>Optics Letters</i> , 2014 , 39, 4239-42	3	10
69	Control of light polarization using optically spin-injected vertical external cavity surface emitting lasers. <i>Applied Physics Letters</i> , 2013 , 103, 252402	3-4	32
68	High power and ultra-low noise VECSEL for high dynamic range and wideband microwave optical links 2013 ,		2
67	Experimental evidence and theoretical modeling of two-photon absorption dynamics in the reduction of intensity noise of solid-state Er:Yb lasers. <i>Optics Express</i> , 2013 , 21, 8773-80	3-3	15
66	Theoretical and experimental analysis of intensity noise correlations in an optically pumped, dual-frequency Nd:YAG laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013 , 30, 2830	1-7	4
65	Intensity noise correlations in a two-frequency VECSEL. <i>Optics Express</i> , 2013 , 21, 2538-50	3-3	18
64	Optoelectronic phase-locked loop for millimeter-wave and THz beat note stabilization 2012 ,		2
63	Polarimetric imaging beyond the speckle grain scale. <i>Applied Optics</i> , 2012 , 51, 7345-56	1.7	10
62	Experimental demonstration of a dual-frequency laser free from antiphase noise. <i>Optics Letters</i> , 2012 , 37, 4901-3	3	6

61	Computational polarization imaging from a single speckle image. <i>Optics Letters</i> , 2012 , 37, 386-8	3	4
60	Depolarization remote sensing by orthogonality breaking. <i>Physical Review Letters</i> , 2012 , 109, 043901	7.4	22
59	Stabilization of a dual-frequency VECSEL free of relaxation oscillations for microwave photonics applications 2012 ,		1
58	Experimental study of the delayed threshold phenomenon in a class-A VECSEL. <i>EPJ Applied Physics</i> , 2012 , 58, 10501	1.1	1
57	Opto-electronic down conversion: A novel approach for optical beat note stabilisation up to the THz domain 2011 ,		1
56	Beat note stabilization of a 10-60 GHz dual-polarization microlaser through optical down conversion. <i>Optics Express</i> , 2011 , 19, 4399-404	3.3	13
55	Observation of noise phase locking in a single-frequency VECSEL. <i>Optics Express</i> , 2011 , 19, 17250-9	3.3	2
54	Non-linear optoelectronic phase-locked loop for stabilization of opto-millimeter waves: towards a narrow linewidth tunable THz source. <i>Optics Express</i> , 2011 , 19, 17944-50	3.3	33
53	Time delay generation at high frequency using SOA based slow and fast light. <i>Optics Express</i> , 2011 , 19, 21180-8	3.3	49
52	Slow and Fast Light in Semiconductor Optical Amplifiers for Microwave Photonics Applications 2011 ,		2
51	Optoelectronic down conversion: a novel approach for optical beat note stabilisation up to the THz domain 2011 ,		1
50	Simulation of microwave optical links and proof of noise figure lower than electrical losses. <i>International Journal of Microwave and Wireless Technologies</i> , 2010 , 2, 497-503	0.8	5
49	Observation of slow light in the noise spectrum of a vertical external cavity surface-emitting laser. <i>Physical Review Letters</i> , 2010 , 105, 223902	7.4	16
48	Timing Jitter Reduction of a Mode-Locked VECSEL Using an Optically Triggered SESAM. <i>IEEE Photonics Technology Letters</i> , 2010 , 22, 1434-1436	2.2	9
47	Measurement of the coupling constant in a two-frequency VECSEL. <i>Optics Express</i> , 2010 , 18, 5008-14	3.3	33
46	Experimental demonstration of enhanced slow and fast light by forced coherent population oscillations in a semiconductor optical amplifier. <i>Optics Letters</i> , 2010 , 35, 2457-9	3	8
45	Intermodulation distortion in microwave phase shifters based on slow and fast light propagation in semiconductor optical amplifiers. <i>Optics Letters</i> , 2010 , 35, 2762-4	3	8
44	Dynamic saturation in Semiconductor Optical Amplifiers: accurate model, role of carrier density, and slow light. <i>Optics Express</i> , 2010 , 18, 685-93	3.3	10

43	Timing jitter reduction of a mode-locked VECSEL using an optically triggered SESAM 2010 ,		1
42	Detection in polarimetric images in the presence of additive noise and non-uniform illumination. <i>Journal of Physics: Conference Series</i> , 2010 , 206, 012015	0.3	
41	Snapshot active polarimetric and multispectral laboratory demonstrator 2009 ,		2
40	Direct observation of the class-B to class-A transition in the dynamical behavior of a semiconductor laser. <i>Europhysics Letters</i> , 2009 , 87, 44005	1.6	20
39	Slow light using semiconductor optical amplifiers: Model and noise characteristics. <i>Comptes Rendus Physique</i> , 2009 , 10, 991-999	1.4	2
38	Experimental demonstration of a tunable dual-frequency semiconductor laser free of relaxation oscillations. <i>Optics Letters</i> , 2009 , 34, 3421-3	3	46
37	Estimating the polarization degree of polarimetric images in coherent illumination using maximum likelihood methods. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2009 , 26, 1348-59	1.8	5
36	Target detection in active polarization images perturbed with additive noise and illumination nonuniformity. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2009 , 26, 1678-86	1.8	3
35	Theoretical study of the spurious-free dynamic range of a tunable delay line based on slow light in SOA. <i>Optics Express</i> , 2009 , 17, 20584-97	3.3	15
34	Near-infrared active polarimetric and multispectral laboratory demonstrator for target detection. <i>Applied Optics</i> , 2009 , 48, 1610-8	0.2	32
33	Design and experimental validation of a snapshot polarization contrast imager. <i>Applied Optics</i> , 2009 , 48, 5764-73	0.2	23
32	Influence of slow light effect in semiconductor amplifiers on the dynamic range of microwave-photonics links 2009 ,		1
31	Experimental investigation of relative intensity noise in Brillouin fiber ring lasers for microwave photonics applications. <i>Optics Letters</i> , 2008 , 33, 1681-3	3	21
30	Minimization of the influence of passive-light contribution in active imaging of the degree of polarization. <i>Optics Letters</i> , 2008 , 33, 2335-7	3	5
29	Experimental Investigation and Analytical Modeling of Excess Intensity Noise in Semiconductor Class-A Lasers. <i>Journal of Lightwave Technology</i> , 2008 , 26, 952-961	4	43
28	Degree of polarization estimation in the presence of nonuniform illumination and additive Gaussian noise. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2008 , 25, 919-29	1.8	6
27	Evidence of ultra low microwave additive phase noise for an optical RF link based on a class--a semiconductor laser. <i>Optics Express</i> , 2008 , 16, 10091-7	3.3	6
26	Ultra low microwave additive phase noise for an optical RF link based on a Class-A semiconductor laser 2008 ,		1

25	Experimental investigation of noise reduction in an opto-microwave link based on highly-dispersive low-loss fiber. <i>EPJ Applied Physics</i> , 2008 , 44, 65-70	1.1	
24	Active spectro-polarimetric imaging: signature modeling, imaging demonstrator and target detection. <i>EPJ Applied Physics</i> , 2008 , 42, 129-139	1.1	10
23	Precision of degree of polarization estimation in the presence of additive Gaussian detector noise. <i>Optics Communications</i> , 2007 , 278, 264-269	2	10
22	Shot-noise-limited operation of a monomode high-cavity-finesse semiconductor laser for microwave photonics applications. <i>Optics Letters</i> , 2007 , 32, 650-2	3	37
21	Dual-frequency single-axis laser using a lead lanthanum zirconate tantalate (PLZT) birefringent etalon for millimeter wave generation: beyond the standard limit of tunability. <i>Optics Letters</i> , 2007 , 32, 1090-2	3	20
20	Recent Breakthroughs in RF Photonics for Radar Systems. <i>IEEE Aerospace and Electronic Systems Magazine</i> , 2007 , 22, 3-8	2.4	15
19	Optical multibeamforming network based on WDM and dispersion fiber in receive mode. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2006 , 54, 402-411	4.1	27
18	Broad-bandwidth shot-noise-limited class-A operation of a monomode semiconductor fiber-based ring laser. <i>Optics Letters</i> , 2006 , 31, 62-4	3	24
17	Some practical issues in anomaly detection and exploitation of regions of interest in hyperspectral images. <i>Applied Optics</i> , 2006 , 45, 5223-36	1.7	4
16	Active polarimetric and multispectral laboratory demonstrator: contrast enhancement for target detection 2006 ,		6
15	Impact of the gain saturation dynamics in semiconductor optical amplifiers on the characteristics of an analog optical link. <i>Journal of Lightwave Technology</i> , 2005 , 23, 2420-2426	4	15
14	Two optronic identification techniques: lidar-radar and multispectral polarimetric imaging 2004 ,		2
13	Multispectral polarimetric imaging with coherent illumination: towards higher image contrast 2004 , 5432, 133		16
12	THz-dual-frequency Yb ³⁺ :KGd(WO ₄) ₂ laser for continuous wave THz generation through photomixing. <i>Electronics Letters</i> , 2004 , 40, 942	1.1	40
11	Two-Frequency Lasers: from Excess Quantum Noise to RF Photonics Applications. <i>Acta Physica Polonica A</i> , 2002 , 101, 7-20	0.6	
10	One- and two-axis laser cavities for dual-frequency operation and microwave generation 2001 , 4353, 145		3
9	Resonant diffraction losses in solid-state monomode lasers. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2001 , 18, 780	1.7	1
8	Offset phase locking of Er,Yb:glass laser eigenstates for RF photonics applications. <i>IEEE Photonics Technology Letters</i> , 2001 , 13, 367-369	2.2	61

7	Tunable absolute-frequency laser at 1.5 [micro sign]m. <i>Electronics Letters</i> , 2000 , 36, 1780	1.1	2
6	Existence of two coupling constants in microchip lasers. <i>Optics Letters</i> , 2000 , 25, 896-8	3	22
5	Experimental and theoretical study of longitudinally monomode vectorial solid-state lasers. <i>Physical Review A</i> , 1999 , 59, 831-840	2.6	18
4	Polarization self-modulated lasers with circular eigenstates. <i>Applied Physics Letters</i> , 1999 , 74, 3266-3268	3.4	13
3	Self-mode-locked pulsed monomode laser. <i>Optics Letters</i> , 1999 , 24, 229-31	3	6
2	Dual tunable wavelength Er,Yb:glass laser for terahertz beat frequency generation. <i>IEEE Photonics Technology Letters</i> , 1998 , 10, 1554-1556	2.2	48
1	Estimation precision of degree of polarization in the presence of signal-dependent and additive Poisson noises. <i>Journal of the European Optical Society-Rapid Publications</i> , 3,	2.5	12