

# Nikolay Ledentsov Jr

## List of Publications by Year in descending order

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g-index

78  
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78  
docs citations

78  
times ranked

414  
citing authors

#	ARTICLE	IF	CITATIONS
1	54 Gbit/s OOK transmission using single-mode VCSEL up to 2.2 km MMF. Electronics Letters, 2016, 52, 633-635.	0.5	66
2	Anti-waveguiding vertical-cavity surface-emitting laser at 850 nm: From concept to advances in high-speed data transmission. Optics Express, 2018, 26, 445.	1.7	58
3	Effective 100 Gb/s IM/DD 850-nm Multi- and Single-Mode VCSEL Transmission Through OM4 MMF. Journal of Lightwave Technology, 2017, 35, 423-429.	2.7	48
4	Single-Mode Vertical Cavity Surface Emitting Laser via Oxide-Aperture-Engineering of Leakage of High-Order Transverse Modes. IEEE Journal of Quantum Electronics, 2014, 50, 990-995.	1.0	44
5	Error-Free Transmission Over 1-km OM4 Multimode Fiber at 25 Gb/s Using a Single Mode Photonic Crystal Vertical-Cavity Surface-Emitting Laser. IEEE Photonics Technology Letters, 2013, 25, 1823-1825.	1.3	40
6	107.5 Gb/s 850 nm multi- and single-mode VCSEL transmission over 10 and 100 m of multi-mode fiber. , 2016, , .		34
7	Effect of heterostructure design on carrier injection and emission characteristics of 295 nm light emitting diodes. Journal of Applied Physics, 2015, 117, .	1.1	32
8	High Speed 160 Gb/s DMT VCSEL Transmission Using Pre-equalization. , 2017, , .		32
9	Single-Mode 850-nm VCSELs for 54-Gb/s ON-OFF Keying Transmission Over 1-km Multi-Mode Fiber. IEEE Photonics Technology Letters, 2016, 28, 1367-1370.	1.3	29
10	High speed data transmission using directly modulated microdisk lasers based on InGaAs/GaAs quantum well-dots. Optics Letters, 2019, 44, 5442.	1.7	24
11	Tilted Wave Lasers: A Way to High Brightness Sources of Light. IEEE Journal of Quantum Electronics, 2011, 47, 1014-1027.	1.0	22
12	Progress on single mode VCSELs for data- and tele-communications. Proceedings of SPIE, 2012, , .	0.8	21
13	High Speed Optical Data Transmission With Compact 850 nm TO-Can Assemblies. IEEE Journal of Quantum Electronics, 2014, 50, 281-286.	1.0	21
14	High Speed VCSEL Technology and Applications. Journal of Lightwave Technology, 2022, 40, 1749-1763.	2.7	17
15	Direct Evidence of the Leaky Emission in Oxide-Confined Vertical Cavity Lasers. IEEE Journal of Quantum Electronics, 2016, 52, 1-7.	1.0	16
16	Wafer-fused 1300 nm VCSELs with an active region based on superlattice. Electronics Letters, 2021, 57, 697-698.	0.5	15
17	Energy Efficient 850 nm VCSEL Based Optical Transmitter and Receiver Link Capable of 80 Gbit/s NRZ Multi-Mode Fiber Data Transmission. Journal of Lightwave Technology, 2020, 38, 1747-1752.	2.7	13
18	Single-Mode 940 nm VCSELs With Narrow Divergence Angles and High-Power Performances for Fiber and Free-Space Optical Communications. IEEE Access, 2020, 8, 72095-72101.	2.6	13

#	ARTICLE	IF	CITATIONS
19	Non-Linear PAM-4 VCSEL Equalization and 22 nm SOI CMOS DAC for 112 Gbit/s Data Transmission. , 2019, , .		12
20	Serial data transmission at 224 Gbit/s applying directly modulated 850 and 910Ånm VCSELs. Electronics Letters, 2021, 57, 735-737.	0.5	11
21	Quantum dot 850Ånm VCSELs with extreme high temperature stability operating at bit rates up to 25ÅGbit/s at 150Å°C. Solid-State Electronics, 2019, 155, 150-158.	0.8	10
22	25.78ÅGbit/s data transmission over 2Åkm multiÅmodeÅ fibre with 850 and 910Ånm singleÅmode VCSELs and a commercial quad small formÅfactor pluggable transceiver. Electronics Letters, 2018, 54, 774-775.	0.5	9
23	Flexible MultiCAP Modulation and its Application to 850 nm VCSEL-MMF Links. Journal of Lightwave Technology, 2017, 35, 3168-3173.	2.7	8
24	Application of nanophotonics to the next generation of surface-emitting lasers. Nanophotonics, 2017, 6, 813-829.	2.9	7
25	168Gbps PAM-4 Multimode Fiber Transmission through 50m using 28GHz 850nm Multimode VCSELs. , 2020, , .		7
26	50 Gb/s NRZ and 4-PAM data transmission over OM5 fiber in the SWDM wavelength range. , 2018, , .		7
27	850 nm single-mode VCSEL for error-free 60 Gbit/s OOK operation and transmission through 800 m of multi-mode fiber. , 2019, , .		7
28	Optical Interconnects Using Single-Mode and Multi-Mode VCSEL and Multi-Mode Fiber. , 2020, , .		7
29	Ultrafast Zn-Diffusion and Oxide-Relief 940 nm Vertical-Cavity Surface-Emitting Lasers under High-Temperature Operation. IEEE Journal of Selected Topics in Quantum Electronics, 2019, , 1-1.	1.9	6
30	120Gbit/s multi-mode fiber transmission realized with feed forward equalization using 28GHz 850nm VCSELs. , 2019, , .		6
31	Development of VCSELs and VCSEL-based Links for Data Communication beyond 50Gb/s. , 2020, , .		6
32	Comprehensive Analysis of Electric Properties of Oxide-Confined Vertical-Cavity Surface-Emitting Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-9.	1.9	5
33	Virtual cavity in distributed Bragg reflectors. Optics Express, 2018, 26, 25280.	1.7	4
34	Narrow spectrum VCSEL development for high performance 100G transceivers and increased transmission distance over multimode fiber. , 2021, , .		4
35	Up to 600 Gbit/s data transmission over 100 m of single multi-mode fiber using 4Å—Å 850-940 nm VCSELs. , 2022, , .		4
36	Engineering of optical modes in vertical-cavity microresonators by aperture placement: applications to single-mode and near-field lasers. , 2015, , .		3

#	ARTICLE	IF	CITATIONS
37	High-speed modulation, wavelength, and mode control in vertical-cavity surface-emitting lasers. , 2015, , .		3
38	Design Considerations for Single-Mode Vertical-Cavity Surface-Emitting Lasers With Impurity-Induced Intermixing. IEEE Journal of Quantum Electronics, 2016, 52, 1-6.	1.0	3
39	Leaky cavity 850 nm Single-Mode VCSELs for high-speed data transmission over multi-mode fiber. , 2018, , .		3
40	Up to 30-Fold BER Improvement Using a Data-Dependent FFE Switching Technique for 112Gbit/s PAM-4 VCSEL Based Links. , 2020, , .		3
41	Oxide-confined leaky vertical-cavity surface-emitting lasers for single-mode operation. SPIE Newsroom, 0, , .	0.1	3
42	Zn-Diffusion/Oxide-Relief 940 nm VCSELs with Excellent High-Temperature Performance for 50 Gbit/sec Transmission. , 2018, , .		3
43	Thermally stable surface-emitting tilted wave laser. , 2018, , .		3
44	Advances in design and application of compact VCSEL arrays: from multicore fiber to optical wireless and beyond. , 2022, , .		3
45	850 nm single mode VCSEL-based 25Gx16 transmitter/receiver boards for parallel signal transmission over 1 km of multimode fiber. Proceedings of SPIE, 2015, , .	0.8	2
46	Close to 100 Gbps discrete multitone transmission over 100m of multimode fiber using a single transverse mode 850nm VCSEL. , 2016, , .		2
47	Robustness versus thermal effects of single-mode operation of vertical-cavity surface-emitting lasers with engineered leakage of high-order transverse optical modes. , 2017, , .		2
48	High speed transmission with 850 nm SM and MM VCSELs. , 2017, , .		2
49	100G Flexible IM-DD 850 nm VCSEL Transceiver with Fractional Bit Rate Using Eight-Dimensional PAM. , 2017, , .		2
50	A Design and New Functionality of Antiwaveguiding Vertical-Cavity Surface-Emitting Lasers for a Wavelength of 850 nm. Technical Physics Letters, 2018, 44, 36-39.	0.2	2
51	A 50Gbit/s Net NRZ Error-Free 850nm VCSEL Based Optical Interconnect. , 2019, , .		2
52	Speciality Fibre in High Speed Transmission Application. , 2020, , .		2
53	Towards 100 Gb/s Serial Optical Links over 300m of Multimode Fibre Using Single Transverse Mode 850nm VCSEL. , 2015, , .		2
54	54 Gbps OOK Transmission Using Single Mode VCSEL up to 1 km OM4 MMF. , 2016, , .		2

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55	High speed data transmission over multimode fiber based on single mode 850 nm leaky VCSELs. Proceedings of SPIE, 2017, , .	0.8	2
56	Ultra-Fast Zn-Diffusion/Oxide-Relief 940 nm VCSELs. , 2019, , .		2
57	Wavelength-stabilized near-field laser. , 2020, , .		2
58	Separated electrodes for the enhancement of high-speed data transmission in vertical-cavity surface-emitting laser arrays. Optics Express, 2022, 30, 26690.	1.7	2
59	Direct visualization of the in-plane leakage of high-order transverse modes in vertical-cavity surface-emitting lasers mediated by oxide-aperture engineering. Proceedings of SPIE, 2016, , .	0.8	1
60	Resonant cavity light-emitting diodes based on dielectric passive cavity structures. , 2017, , .		1
61	Relative intensity noise of single- and multi-mode 850 nm vertical-cavity surface-emitting lasers. , 2017, , .		1
62	Impact of the sample modal composition of 850nm VCSELs on high speed data transmission over multimode fiber applying different modulation formats. , 2017, , .		1
63	High speed 850 nm single mode and multi mode VCSEL transmission over multimode fiber. Proceedings of SPIE, 2017, , .	0.8	1
64	NRZ, DB, and DMT performance for short-reach VCSEL-based optical interconnects. , 2021, , .		1
65	Temperature stable oxide-confined 850-nm VCSELs operating at bit rates up to 25 Gbit/s at 150Å°C. , 2018, , .		1
66	Quantum-dot oxide-confined 850-nm VCSELs with extreme temperature stability operating at 25 Gbit/s up to 180deg C. , 2020, , .		1
67	Novel multi-aperture VCSELs for optical wireless and multimode fiber communication. , 2021, , .		1
68	Progress in design and development of anti-guiding vertical cavity surface emitting laser at 850 nm: Above 50 Gb/s and single mode. , 2017, , .		0
69	High speed data transmission with a modal filter. , 2017, , .		0
70	High Speed Transmission Over 1km Wideband-MMF Using Single Mode VCSELs in the SWDM Range Operating at 85Å°C. , 2018, , .		0
71	Electrical Properties of Oxide-Confined Vertical-Cavity Surface-Emitting Lasers. , 2019, , .		0
72	Edge- and Surface-Emitting Lasers Applying TM Mode Confined at the Distributed Bragg Reflector-Air Interface. , 2020, , .		0

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73	On high speed transmission with the 850nm VCSELs. , 2016, , .		0
74	Short-range links beyond 100Gb/s with vertical-cavity surface-emitting lasers. SPIE Newsroom, 0, , .	0.1	0
75	Small-signal modulation and 10 Gb/s data transmission by microdisk lasers based on InGaAs/GaAs quantum well-dots. , 2020, , .		0
76	Oxidation stress induced birefringence in vertical cavity surface emitting lasers. , 2020, , .		0