# Theoni Alexoudi

List of Publications by Year
in descending order



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|---|---|---|---|
| 46 papers | 731 citations | 567281 15 h-index | 552781 26 g-index |
| 46 all docs | 46 docs citations | 46 times ranked | 555 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Optical RAM and integrated optical memories: a survey. Light: Science and Applications, 2020, 9, 91. | 16.6 | 98 |
| 2 | Optics in Computing: From Photonic Network-on-Chip to Chip-to-Chip Interconnects and Disintegrated Architectures. Journal of Lightwave Technology, 2019, 37, 363-379. | 4.6 | 87 |
| 3 | Dual SOA-MZI Wavelength Converters Based on III-V Hybrid Integration on a $mu{m m}$-Scale Si Platform. IEEE Photonics Technology Letters, 2014, 26, 560-563. | 2.5 | 38 |
| 4 | IIIâ€“V-on-Si Photonic Crystal Nanocavity Laser Technology for Optical Static Random Access Memories. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 295-304. | 2.9 | 38 |
| 5 | Photonic (computational) memories: tunable nanophotonics for data storage and computing. Nanophotonics, 2022, 11, 3823-3854. | 6.0 | 37 |
| 6 | High-Port and Low-Latency Optical Switches for Disaggregated Data Centers: The Hipoî»aos Switch Architecture [Invited]. Journal of Optical Communications and Networking, 2018, 10, B102. | 4.8 | 35 |
| 7 | 10â€‰â€‰Gb/s optical random access memory (RAM) cell. Optics Letters, 2019, 44, 1821. | 3.3 | 34 |
| 8 | Silicon photonic 8 Ã— 8 cyclic Arrayed Waveguide Grating Router for O-band on-chip communication. Optics Express, 2018, 26, 6276. | 3.4 | 33 |
| 9 | Bringing WDM Into Optical Static RAM Architectures. Journal of Lightwave Technology, 2013, 31, 988-995. | 4.6 | 30 |
| 10 | Optical Cache Memory Peripheral Circuitry: Row and Column Address Selectors for Optical Static RAM Banks. Journal of Lightwave Technology, 2013, 31, 4098-4110. | 4.6 | 28 |
| 11 | All-Optical T-Flip-Flop Using a Single SOA-MZI-Based Latching Element. IEEE Photonics Technology Letters, 2012, 24, 748-750. | 2.5 | 25 |
| 12 | 4-channel 200 Gb/s WDM O-band silicon photonic transceiver sub-assembly. Optics Express, 2020, 28, 5706. | 3.4 | 25 |
| 13 | Ultra-compact IIIâ€’V-on-Si photonic crystal memory for flip-flop operation at 5 Gb/s. Optics Express, 2016, 24, 4270. | 3.4 | 21 |
| 14 | Column Address Selection in Optical RAMs With Positive and Negative Logic Row Access. IEEE Photonics Journal, 2013, 5, 7800410-7800410. | 2.0 | 18 |
| 15 | O-Band Silicon Photonic Transmitters for Datacom and Computercom Interconnects. Journal of Lightwave Technology, 2019, 37, 5140-5148. | 4.6 | 18 |
| 16 | A 40 Gb/s Chip-to-Chip Interconnect for 8-Socket Direct Connectivity Using Integrated Photonics. IEEE Photonics Journal, 2018, 10, 1-8. | 2.0 | 16 |
| 17 | WDM-Based Silicon Photonic Multi-Socket Interconnect Architecture With Automated Wavelength and Thermal Drift Compensation. Journal of Lightwave Technology, 2020, 38, 6000-6006. | 4.6 | 15 |
| 18 | 400 Gb/s Silicon Photonic Transmitter and Routing WDM Technologies for Glueless 8-Socket Chip-to-Chip Interconnects. Journal of Lightwave Technology, 2020, 38, 3366-3375. | 4.6 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | O-band Energy-efficient Broadcast-friendly Interconnection Scheme with SiPho Mach-Zehnder Modulator (MZM) & Arrayed Waveguide Grating Router (AWGR). , 2018, , . | | 14 |
| 20 | Ditheringâ€based realâ€time control of cascaded silicon photonic devices by means of nonâ€invasive detectors. IET Optoelectronics, 2021, 15, 111-120. | 3.3 | 13 |
| 21 | 52Âkm-Long Transmission Link Using a 50ÂGb/s O-Band Silicon Microring Modulator Co-Packaged With a 1V-CMOS Driver. IEEE Photonics Journal, 2019, 11, 1-7. | 2.0 | 11 |
| 22 | Optical RAM Row With 20 Gb/s Optical Word Read/Write. Journal of Lightwave Technology, 2021, 39, 7061-7069. | 4.6 | 8 |
| 23 | Deterministic Timing Jitter Analysis of SOA-Amplified Intensity-Modulated Optical Pulses. IEEE Photonics Journal, 2012, 4, 1947-1955. | 2.0 | 6 |
| 24 | Crosstalk-Aware Wavelength-Switched All-to-All Optical Interconnect Using Sub-Optimal AWGRs. IEEE Photonics Technology Letters, 2019, 31, 1507-1510. | 2.5 | 6 |
| 25 | Silicon Photonic 16 Ã— 16 Cyclic AWGR for DWDM O-Band Interconnects. IEEE Photonics Technology Letters, 2020, 32, 1233-1236. | 2.5 | 6 |
| 26 | Silicon circuits for chipâ€toâ€chip communications in multiâ€socket server board interconnects. IET Optoelectronics, 2021, 15, 102-110. | 3.3 | 6 |
| 27 | Multi-wavelength access gate for WDM-formatted words in optical RAM row architectures. Proceedings of SPIE, 2013, , . | 0.8 | 5 |
| 28 | Optical RAM Row Access With WDM-Enabled All-Passive Row/Column Decoders. IEEE Photonics Technology Letters, 2014, 26, 671-674. | 2.5 | 5 |
| 29 | Thick-SOI Echelle grating for any-to-any wavelength routing interconnection in multi-socket computing environments. , 2017, , . | | 5 |
| 30 | Monolithically Integrated InP Bistable Photonic Waveguide Memory. IEEE Photonics Technology Letters, 2021, 33, 1274-1277. | 2.5 | 5 |
| 31 | Low-Loss Highly Tolerant Flip-Chip Couplers for Hybrid Integration of Si<sub>3</sub>N<sub>4</sub> and Polymer Waveguides. IEEE Photonics Technology Letters, 2016, 28, 2748-2751. | 2.5 | 4 |
| 32 | Broadband 5Gb/s Optical RAM Cell over the C-band. , 2021, , . | | 4 |
| 33 | 480 Gbps WDM Transmission Through an Al<sub>2</sub>O<sub>3</sub>:Er<sup>3+</sup> Waveguide Amplifier. Journal of Lightwave Technology, 2022, 40, 735-743. | 4.6 | 4 |
| 34 | Lossless 1 Ã— 4 Silicon Photonic ROADM Based on a Monolithic Integrated Erbium Doped Waveguide Amplifier on a Si<sub>3</sub>N<sub>4</sub> Platform. Journal of Lightwave Technology, 2022, 40, 1718-1725. | 4.6 | 4 |
| 35 | An all-optical 8-bit RAM storage unit with 2Ã—4-bit WDM-formatted data words. , 2022, , . | | 4 |
| 36 | Optical Content Addressable Memory Matchline and RAM table Encoding/Decoding using an integrated CAM cell. , 2022, , . | | 3 |

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|---|---|---|---|
| 37 | 16-bit (4Ã—4) Optical Random Access Memory (RAM) Bank. , 2022, , . | | 3 |
| 38 | Optical memory architectures for fast routing address look-up (AL) table operation. JPhys Photonics, 2019, 1, 044005. | 4.6 | 1 |
| 39 | Guest editorial: IET optoelectronicsâ€"special issue on optical interconnects. IET Optoelectronics, 2021, 15, 75-76. | 3.3 | 1 |
| 40 | 8Ã—40 Gbps WDM Amplification in a Monolithically Integrated Al<sub>2</sub>O<sub>3</sub>:Er<sup>3+</sup>-Si<sub>3</sub>N<sub>4</sub> Waveguide Amplifier. IEEE Photonics Technology Letters, 2021, 33, 1177-1180. | 2.5 | 1 |
| 41 | Automated Thermal Drift Compensation in WDM-based Silicon Photonic Multi-Socket Interconnect Systems. , 2020, , . | | 1 |
| 42 | Dual-Layer Locality-Aware Optical Interconnection Architecture for Latency-Critical Resource Disaggregation Environments. Lecture Notes in Computer Science, 2020, , 299-309. | 1.3 | 1 |
| 43 | Silicon photonic-based transceivers and subsystems for on-board and inter-DC interconnects. , 2020, , . | | 0 |
| 44 | Highly reliable polymer waveguide platform for multi-port photonic chip-packaging. , 2021, , . | | 0 |
| 45 | Optics for Disaggregating Data Centers and Disintegrating Computing. Lecture Notes in Computer Science, 2020, , 274-285. | 1.3 | 0 |
| 46 | Temperature and Wavelength Drift Tolerant WDM Transmission and Routing in On-chip Silicon Photonic Interconnects. Optics Express, 0, , . | 3.4 | 0 |