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Rank	No. of Downloads	Year Published	Article Title	Author(s)
1	5,744	1987	Electrooptical effects in silicon	Soref, Richard A.; Bennett, B.R.
2	4,716	1982	Theory of the linewidth of semiconductor lasers	Henry, C.H.
3	3,931	1990	A review of the optical properties of biological tissues	Cheong, W.-F.; Prael, S.A.; Welch, A.J.
4	3,875	1973	Coupled-mode theory for guided-wave optics	Yariv, A.
5	3,687	1990	Sensitive measurement of optical nonlinearities using a single beam	Sheik-Bahae, M.; Said, A.A.; Wei, T.-H.; Hagan, D.J.; Van Stryland, E.W.
6	3,128	1997	Laser ablation and micromachining with ultrashort laser pulses	Liu, X.; Du, D.; Mourou, G.
7	2,926	1980	External optical feedback effects on semiconductor injection laser properties	Lang, R.; Kobayashi, K.
8	2,768	1969	Optical pulse compression with diffraction gratings	Treacy, E.
9	2,765	1997	Ytterbium-doped fiber amplifiers	Paschotta, R.; Nilsson, J.; Tropper, A.C.; Hanna, D.C.
10	2,459	1992	Quasi-phase-matched second harmonic generation: tuning and tolerances	Fejer, M.M.; Magel, G.A.; Jundt, Dieter H.; Byer, R.L.
11	2,326	2002	An out-of-plane grating coupler for efficient butt-coupling between compact planar waveguides and single-mode fibers	Taillaert, D.; Bogaerts, W.; Bienstman, P.; Krauss, T.F.; Van Daele, P.; Moerman, I.; Verstuyft, S.; De Mesel, K.; Baets, R.
12	2,245	1997	Resonant grating waveguide structures	Rosenblatt, David; Sharon, A.; Friesem, A.A.
13	2,104	1990	Carrier-induced change in refractive index of InP, GaAs and InGaAsP	Bennett, B.R.; Soref, Richard A.; del Alamo, J.A.
14	1,801	1989	Self-phase modulation and spectral broadening of optical pulses in semiconductor laser amplifiers	Agrawal, G.P.; Olsson, N.A.
15	1,778	1975	Analysis of curved optical waveguides by conformal transformation	Heiblum, M.; Harris, J.
16	1,772	1982	Parametric amplification and frequency conversion in optical fibers	Stolen, R.H.; Bjorkholm, John E.
17	1,730	1989	Theoretical description of transient stimulated Raman scattering in optical fibers	Blow, K.J.; Wood, D.
18	1,527	1993	Evaluation of absorption and emission properties of Yb ³⁺ doped crystals for laser applications	DeLoach, Laura D.; Payne, S.A.; Chase, L.L.; Smith, Larry K.; Kway, Wayne L.; Krupke, William F.
19	1,513	1982	Injection locking properties of a semiconductor laser	Lang, R.
20	1,454	1991	Large single-mode rib waveguides in GeSi-Si and Si-on-SiO ₂	Soref, Richard A.; Schmidtchen, J.; Petermann, K.
21	1,424	2002	Full-vectorial imaginary-distance beam propagation method based on a finite element scheme: application to photonic crystal fibers	Saitoh, K.; Koshiba, M.
22	1,406	2007	Improved Bend Loss Formula Verified for Optical Fiber by Simulation and Experiment	Schermer, R.T.; Cole, J.H.
23	1,384	1987	Linewidth broadening factor in semiconductor lasers—An overview	Osinski, M.; Buus, J.
24	1,354	1981	Polarization in optical fibers	Kaminow, I.
25	1,337	1987	3000 times grating compressor with positive group velocity dispersion: Application to fiber compensation in 1.3-1.6 μm region	Martinez, O.E.
26	1,309	1974	Principles of distributed feedback and distributed Bragg-reflector lasers	Wang, Shyh

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27	1,301	1990	Solving the Schrodinger equation in arbitrary quantum-well potential profiles using the transfer matrix method	Jonsson, B.; Eng, S.
28	1,297	1993	Theory, design, and performance of extended tuning range semiconductor lasers with sampled gratings	Jayaraman, V.; Chuang, Z.-M.; Coldren, L.A.
29	1,289	1993	Simulation of three-dimensional optical waveguides by a full-vector beam propagation method	Huang, W.-P.; Xu, C.L.
30	1,276	1999	Laser-induced plasma formation in water at nanosecond to femtosecond time scales: calculation of thresholds, absorption coefficients, and energy density	Noack, J.; Vogel, A.
31	1,274	1986	Linewidth determination from self-heterodyne measurements with subcoherence delay times	Richter, L.; Mandelberg, H.I.; Kruger, M.; McGrath, P.
32	1,273	1994	Analytical model for rare-earth-doped fiber amplifiers and lasers	Barnard, C.; Myslinski, P.; Chrostowski, J.; Kavehrad, M.
33	1,264	2014	Quality Improvement of GaN on Si Substrate for Ultraviolet Photodetector Application	Chao-Wei Hsu; Yung-Feng Chen; Yan-Kuin Su
34	1,257	1999	Coupling of modes analysis of resonant channel add-drop filters	Manolatou, C.; Khan, M.J.; Shanhui Fan; Villeneuve, Pierre R.; Haus, H.A.; Joannopoulos, J.D.
35	1,225	1987	Phase-mismatch dependence of efficiency of wave generation through four-wave mixing in a single-mode optical fiber	Shibata, N.; Braun, R.; Waarts, R.
36	1,225	1988	Generation of ultrahigh peak power pulses by chirped pulse amplification	Maine, P.; Strickland, D.; Bado, P.; Pessot, M.; Mourou, G.
37	1,219	1992	Infrared cross-section measurements for crystals doped with Er^{3+} , Tm^{3+} , and Ho^{3+}	Payne, S.A.; Chase, L.L.; Smith, Larry K.; Kway, Wayne L.; Krupke, William F.
38	1,214	2001	Thermal, stress, and thermo-optic effects in high average power double-clad silica fiber lasers	Brown, D.C.; Hoffman, H.J.
39	1,211	2001	Optical delay lines based on optical filters	Lenz, G.; Eggleton, B.J.; Madsen, C.K.; Slusher, R.E.
40	1,170	1988	Diode laser-pumped solid-state lasers	Tso Yee Fan; Byer, R.L.
41	1,131	1988	Subpicosecond photoconducting dipole antennas	Smith, P.R.; Auston, D.H.; Nuss, M.C.
42	1,108	2001	Solid-state time-of-flight range camera	Lange, R.; Seitz, P.
43	1,096	1995	Optimization of passively Q-switched lasers	Degnan, J.J.
44	1,059	1991	Vertical-cavity surface-emitting lasers: Design, growth, fabrication, characterization	Jewell, J.L.; Harbison, J.P.; Scherer, A.; Lee, Y.H.; Florez, L.T.
45	1,056	1990	An assessment of finite difference beam propagation method	Youngchul Chung; Dagli, N.
46	1,052	1991	Dispersion of bound electron nonlinear refraction in solids	Sheik-Bahae, M.; Hutchings, D.C.; Hagan, D.J.; Van Stryland, E.W.
47	1,043	2010	Frequency-Dependent Complex Conductivities and Dielectric Responses of Indium Tin Oxide Thin Films From the Visible to the Far-Infrared	Chen, Ching-Wei; Yen-Cheng Lin; Chia-Hua Chang; Peichen Yu; Jia-Min Shieh; Ci-Ling Pan
48	1,035	2011	Optical and Electrical Properties of GaN-Based Light Emitting Diodes Grown on Micro- and Nano-Scale Patterned Si Substrate	Ching-Hsueh Chiu; Chien-Chung Lin; Deng, Dong-Mei; Da-Wei Lin; Jin-Chai Li; Zhen-Yu Li; Gia-Wei Shu; Tien-Chang Lu; Ji-Lin Shen; Hao-Chung Kuo; Lau, Kei-May
49	1,034	1987	Principles of optical phase-locking: Application to internal mirror He-Ne lasers phase-locked via fast control of the discharge current	Hall, J.L.; Ma Long-Sheng; Kramer, G.
50	1,002	1990	Optical reflectance and transmittance of tissues: principles and applications	Wilson, B.C.; Jacques, Steven L.