

Farhan Rana

List of Publications by Year in descending order

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38
papers

2,570
citations

566801

15
h-index

414034

32
g-index

39
all docs

39
docs citations

39
times ranked

4147
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement of ultrafast carrier dynamics in epitaxial graphene. Applied Physics Letters, 2008, 92, .	1.5	669
2	Measurement of the optical absorption spectra of epitaxial graphene from terahertz to visible. Applied Physics Letters, 2008, 93, .	1.5	459
3	Graphene Terahertz Plasmon Oscillators. IEEE Nanotechnology Magazine, 2008, 7, 91-99.	1.1	441
4	Ultrafast relaxation dynamics of hot optical phonons in graphene. Applied Physics Letters, 2010, 96, .	1.5	234
5	Surface Recombination Limited Lifetimes of Photoexcited Carriers in Few-Layer Transition Metal Dichalcogenide MoS ₂ . Nano Letters, 2015, 15, 8204-8210.	4.5	153
6	Ultrafast response of monolayer molybdenum disulfide photodetectors. Nature Communications, 2015, 6, 8831.	5.8	147
7	Tunable excitons in bilayer graphene. Science, 2017, 358, 907-910.	6.0	126
8	Schottky barrier inhomogeneities at the interface of few layer epitaxial graphene and silicon carbide. Applied Physics Letters, 2012, 100, .	1.5	75
9	Subwavelength Nanopatch Cavities for Semiconductor Plasmon Lasers. IEEE Journal of Quantum Electronics, 2008, 44, 435-447.	1.0	50
10	Emission of terahertz radiation from SiC. Applied Physics Letters, 2009, 95, 051912.	1.5	31
11	Broken Symmetry Effects due to Polarization on Resonant Tunneling Transport in Double-Barrier Nitride Heterostructures. Physical Review Applied, 2019, 11, .	1.5	25
12	Fundamental and Subharmonic Hybrid Mode-Locking of a High-Power (220 mW) Monolithic Semiconductor Laser. IEEE Photonics Technology Letters, 2008, 20, 1308-1310.	1.3	22
13	Passively Mode-Locked High-Power (210 mW) Semiconductor Lasers at 1.55- μm Wavelength. IEEE Photonics Technology Letters, 2008, 20, 190-192.	1.3	20
14	Measurement of ultrafast dynamics of photoexcited carriers in $\text{In}^2\text{-Ga}_2\text{O}_3$ by two-color optical pump-probe spectroscopy. Applied Physics Letters, 2018, 113, .	1.5	19
15	Exciton-Trion Polaritons in Doped Two-Dimensional Semiconductors. Physical Review Letters, 2021, 126, 127402.	2.9	15
16	Many-body theory of radiative lifetimes of exciton-trion superposition states in doped two-dimensional materials. Physical Review B, 2021, 103, .	1.1	12
17	Fighting Broken Symmetry with Doping: Toward Polar Resonant Tunneling Diodes with Symmetric Characteristics. Physical Review Applied, 2020, 13, .	1.5	11
18	Intra- and inter-conduction band optical absorption processes in $\text{In}^2\text{-Ga}_2\text{O}_3$. Applied Physics Letters, 2020, 117, 072103.	1.5	10

#	ARTICLE	IF	CITATIONS
19	Unconventional valley-dependent optical selection rules and Landau level mixing in bilayer graphene. Nature Communications, 2020, 11, 2941.	5.8	9
20	Tapered Cavities for High-Modulation-Efficiency and Low-Distortion Semiconductor Lasers. IEEE Journal of Quantum Electronics, 2007, 43, 1083-1087.	1.0	7
21	SiGeC/Si Electrooptic Modulators. Journal of Lightwave Technology, 2007, 25, 866-874.	2.7	6
22	Ultrafast dynamics of gallium vacancy charge states in O_3 . Physical Review Research, 2021, 3, .	1.3	6
23	Structure and dispersion of exciton-trion-polaritons in two-dimensional materials: Experiments and theory. Physical Review Research, 2021, 3, .	1.3	6
24	Graphene Terahertz Plasmon Laser: A Laser in a Circuit. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	3
25	Relaxation Oscillations and Pulse Stability in Harmonically Mode-Locked Semiconductor Lasers. IEEE Journal of Quantum Electronics, 2007, 43, 1109-1119.	1.0	3
26	Measurement of Ultrafast Carrier Dynamics in Epitaxial Graphene. Materials Research Society Symposia Proceedings, 2008, 1081, 1.	0.1	3
27	Ultrafast All-optical Switches Based on Intersubband Transitions in GaN/AlN Multiple Quantum Wells for Tb/s Operation. Materials Research Society Symposia Proceedings, 2004, 831, 591.	0.1	2
28	Integrated Terahertz Waveguide-Coupled Microcavity Resonators. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	2
29	HIGH PERFORMANCE SiGeC/Si NEAR-IR ELECTROOPTIC MODULATORS AND PHOTODETECTORS. International Journal of High Speed Electronics and Systems, 2007, 17, 153-162.	0.3	1
30	Active and Hybrid Modelocking of a High Power (100 mW) Monolithic Semiconductor Laser at 1550 nm. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
31	High Power (> 150 mW) Electrically Pumped Semiconductor Modelocked Lasers at 1550 nm with Pulse Widths Approaching 6 ps. LEOS Summer Topical Meeting, 2007, , .	0.0	1
32	Integrated Terahertz Biophotonics: Terahertz Spectroscopy of Proteins in Microfluidic Devices. LEOS Summer Topical Meeting, 2007, , .	0.0	1
33	Widely Tunable (1.0-1.7 μm) Yb-doped Fiber Mode-Locked Laser Source with \sim 100 fs Pulse Widths based on Raman Frequency Shift. , 2007, , .		0
34	Probing ultrafast dynamics of electrons and holes in graphene. , 2008, , .		0
35	Measurement of the optical properties of graphene from THz to near-IR. , 2008, , .		0
36	Amplification of high energy picosecond pulses using slab-coupled waveguide amplifiers at 1550 nm. , 2008, , .		0

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37	Hybrid modelocking in high power (220 mW) electrically pumped semiconductor lasers. , 2008, , .		0
38	HIGH PERFORMANCE SIGEC/SI NEAR-IR ELECTROOPTIC MODULATORS AND PHOTODETECTORS. , 2007, , .		0