Bhavtosh Bansal

List of Publications by Year
in descending order

43 papers	584 citations	516215 16 h-index	642321 23 g-index
44 all docs	44 docs citations	44 times ranked	845 citing authors

#	Article	IF	Citations
1	On conversion of luminescence into absorption and the van Roosbroeck-Shockley relation. Applied Physics Letters, 2012, 100, 222103.	1.5	62
2	Charge separation and temperature-induced carrier migration in Ga<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:mrow></mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mi>x</mml:mi></mml:mrow	1.1	39
3	Magnetic, optical and transport properties of GaMnN films. Solid State Communications, 2003, 125, 55-57.	0.9	35
4	Extended excitons and compact heliumlike biexcitons in type-II quantum dots. Physical Review B, 2009, 80, .	1.1	30
5	Studies on high resolution x-ray diffraction, optical and transport properties of InAsxSb1â^'xâˆ•GaAs (xâ©½0.06) heterostructure grown using liquid phase epitaxy. Journal of Applied Physics, 2004, 96, 4989-4997.	1.1	23
6	Highâ€field magnetoâ€photoluminescence of semiconductor nanostructures. Luminescence, 2012, 27, 179-196.	1.5	22
7	A model for the temperature dependence of photoluminescence from self-assembled quantum dots. Journal of Applied Physics, 2006, 100, 093107.	1.1	21
8	Alloying induced degradation of the absorption edge of InAsxSb1â^'x. Applied Physics Letters, 2007, 90, 101905.	1.5	20
9	Excitonic Mott transition in type-II quantum dots. Physical Review B, 2008, 77, .	1.1	20
10	High-mobility InSb epitaxial films grown on a GaAs (001) substrate using liquid-phase epitaxy. Applied Physics Letters, 2002, 80, 2102-2104.	1.5	18
11	Critical Slowing Down at the Abrupt Mott Transition: When the First-Order Phase Transition Becomes Zeroth Order and Looks Like Second Order. Physical Review Letters, 2020, 124, 095703.	2.9	18
12	Alloy disorder effects on the room temperature optical properties of Ga1â^'xInxNyAs1â^'y quantum wells. Applied Physics Letters, 2006, 89, 032110.	1.5	17
13	InAs/InP quantum dots with bimodal size distribution: Two evolution pathways. Journal of Applied Physics, 2007, 101, 094303.	1.1	17
14	Kinetic Spinodal Instabilities in the Mott Transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">V</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:mrow><mml:m mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml: Evidence from Hysteresis Scaling and Dissipative Phase Ordering. Physical Review Letters, 2018, 121, 045	2.9	17
15	Temperature dependence of the energy gap and free carrier absorption in bulk InAs0.05Sb0.95 single crystals. Applied Physics Letters, 2003, 82, 4720-4722.	1.5	16
16	Detailed studies on the origin of nitrogen-related electron traps in dilute GaAsN layers grown by liquid phase epitaxy. Semiconductor Science and Technology, 2005, 20, 1168-1172.	1.0	16
17	Optical density of states in ultradilute GaAsN alloy: Coexistence of free excitons and impurity band of localized and delocalized states. Journal of Applied Physics, 2014, 116, 023103.	1.1	16
18	Measurements of the Electric Field of Zero-Point Optical Phonons in GaAs Quantum Wells Support the Urbach Rule for Zero-Temperature Lifetime Broadening. Physical Review Letters, 2015, 114, 047402.	2.9	16

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19	Structural, optical, and electrical properties of bulk single crystals of InAsxSb(1âˆ’x) grown by rotatory Bridgman method. Applied Physics Letters, 2002, 81, 1630-1632.	1.5	15
20	Collapse of the charge-ordering state at high magnetic fields in the rare-earth manganitePr0.63Ca0.37MnO3. Physical Review B, 2005, 71, .	1.1	15
21	Single-Slit Electron Diffraction with Aharonov-Bohm Phase: Feynmanâ€™s Thought Experiment with Quantum Point Contacts. Physical Review Letters, 2014, 112, 010403.	2.9	14
22	Magnetic field-dependent photoluminescence linewidths as a probe of disorder length scales in quantum wells. Applied Physics Letters, 2007, 91, 251108.	1.5	13
23	Photoluminescence from localized states in disordered indium nitride. Applied Physics Letters, 2008, 93, 021113.	1.5	13
24	Growth kinetics effects on self-assembled InAsâˆ•InP quantum dots. Applied Physics Letters, 2005, 87, 203104.	1.5	12
25	Highly Sensitive Upconverting Nanoplatform for Luminescent Thermometry from Ambient to Cryogenic Temperature. ChemPhysChem, 2020, 21, 1731-1736.	1.0	12
26	Competition between two- and three-photon upconversion in Er3+-doped microcrystals. Journal of Luminescence, 2020, 227, 117542.	1.5	8
27	Pauli blocking dynamics in optically excited quantum dots: A picosecond excitation-correlation spectroscopic study. Physical Review B, 2013, 87, .	1.1	7
28	Self-Assembly in Semiconductor Epitaxy. , 2015, , 1057-1099.		7
29	Classification of Transitions in Upconversion Luminescence of Lanthanides by Two-Dimensional Correlation Analysis. Journal of Physical Chemistry A, 2019, 123, 2457-2461.	1.1	6
30	Tuning and understanding the emission characteristics of MOVPE-grown self-assembled InAs/InP quantum dots. Journal of Crystal Growth, 2007, 298, 586-590.	0.7	5
31	Fiber optic based system for polarization sensitive spectroscopy of semiconductor quantum structures. Review of Scientific Instruments, 2010, 81, 083901.	0.6	5
32	Dissipation-induced symmetry breaking: Emphanitic transitions in lead- and tin-containing chalcogenides and halide perovskites. Applied Physics Letters, 2021, 118, .	1.5	5
33	Transport, optical and magnetotransport properties of hetero-epitaxial InAsxSb1âˆ’x/GaAs(xâ©½0.06) and bulk crystals: experiment and theoretical analysis. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 20, 272-277.	1.3	4
34	Anomalous effects of ultradilute impurities on heat diffusion in liquids. Optics Communications, 2015, 334, 184-189.	1.0	4
35	How pumpâ€"probe differential reflectivity at negative delay yields the perturbed-free-induction-decay: theory of the experiment and its verification. Journal of Physics Condensed Matter, 2018, 30, 505902.	0.7	4
36	Magnetic field induced band depopulation in intrinsic InSb: a revisit. Journal of Physics Condensed Matter, 2005, 17, 7053-7060.	0.7	2

#	Article	IF	Citations
37	Light emission despite doubly-forbidden radiative transitions in AlP/GaP quantum wells: Role of localized states. Journal of Applied Physics, 2013, 114, 163101.	1.1	2
38	Distinguishing quantum dot-like localized states from quantum well-like extended states across the exciton emission line in a quantum well. Journal of Physics Condensed Matter, 2018, 30, 105402.	0.7	2
39	Experimental determination of the bare energy gap of GaAs without the zero-point renormalization. Journal of Physics Condensed Matter, 2020, 32, 10LT01.	0.7	2
40	Scattering of carriers by charged dislocations in semiconductors. Journal of Applied Physics, 2013, 113, 163705.	1.1	1
41	Khatua, Bansal, and Shahar Reply:. Physical Review Letters, 2014, 113, 158902.	2.9	1
42	Anti-Stokes luminescence in the light of second order perturbation theory. Applied Physics Letters, 2014, 105, 191102.	1.5	1
43	Absolute calibration of the latent heat of transition using differential thermal analysis. Review of Scientific Instruments, 2021, 92, 075106.	0.6	1