

Alessandro Pitanti

List of Publications by Year in descending order

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82
papers

1,294
citations

331259

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377514

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85
all docs

85
docs citations

85
times ranked

1883
citing authors

#	ARTICLE	IF	CITATIONS
1	Micromechanical Bolometers for Subterahertz Detection at Room Temperature. ACS Photonics, 2022, 9, 360-367.	3.2	17
2	Room-Temperature Silicon Platform for GHz-Frequency Nanoelectro-Opto-Mechanical Systems. ACS Photonics, 2022, 9, 413-419.	3.2	13
3	Electron localization in periodically strained graphene. Journal of Applied Physics, 2022, 131, 085103.	1.1	5
4	Unexpected Electron Transport Suppression in a Heterostructured Graphene-MoS ₂ Multiple Field-Effect Transistor Architecture. ACS Nano, 2022, 16, 1291-1300.	7.3	9
5	Optomechanical Modulation Spectroscopy of Bound States in the Continuum in a Dielectric Metasurface. Physical Review Applied, 2022, 17, .	1.5	6
6	Continuous wave vertical emission from terahertz microcavity lasers with a dual injection scheme. Optics Express, 2021, 29, 33602.	1.7	0
7	Injection locking in an optomechanical coherent phonon source. Nanophotonics, 2021, 10, 1319-1327.	2.9	12
8	Optomechanics of Chiral Dielectric Metasurfaces. Advanced Optical Materials, 2020, 8, 1901507.	3.6	24
9	Stress-strain in electron-beam activated polymeric micro-actuators. Journal of Applied Physics, 2020, 128, 115104.	1.1	3
10	High-Frequency Mechanical Excitation of a Silicon Nanosting with Piezoelectric Aluminum Nitride Layers. Physical Review Applied, 2020, 14, .	1.5	9
11	Efficient microwave frequency conversion mediated by a photonics compatible silicon nitride nanobeam oscillator. Quantum Science and Technology, 2020, 5, 034011.	2.6	9
12	Chiral Dielectric Metasurfaces: Optomechanics of Chiral Dielectric Metasurfaces (Advanced Optical) Tj ETQq0 0 0 rgBT /Overlap 10 Tf 5	3.6	1
13	Broadband Dynamic Polarization Conversion in Optomechanical Metasurfaces. Frontiers in Physics, 2020, 7, .	1.0	2
14	Ferromagnetic Resonance Assisted Optomechanical Magnetometer. Physical Review Letters, 2020, 125, 147201.	2.9	23
15	Synchronization of Optomechanical Nanobeams by Mechanical Interaction. Physical Review Letters, 2019, 123, 017402.	2.9	44
16	Local tuning of WS ₂ photoluminescence using polymeric micro-actuators in a monolithic van der Waals heterostructure. Applied Physics Letters, 2019, 115, .	1.5	9
17	Photonic bands, superchirality, and inverse design of a chiral minimal metasurface. Nanophotonics, 2019, 8, 2291-2301.	2.9	17
18	Optomechanical response with nanometer resolution in the self-mixing signal of a terahertz quantum cascade laser. Optics Letters, 2019, 44, 5663.	1.7	5

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19	Chiral metasurface optomechanics. , 2019, , .		0
20	Controlling local deformation in graphene using micrometric polymeric actuators. 2D Materials, 2018, 5, 045032.	2.0	14
21	Numerical emulation of Thru-Reflection-Line calibration for the de-embedding of Surface Acoustic Wave devices. Scientific Reports, 2018, 8, 9256.	1.6	1
22	Symmetry enhanced non-reciprocal polarization rotation in a terahertz metal-graphene metasurface. Optics Express, 2018, 26, 3328.	1.7	7
23	Continuous-wave laser operation of a dipole antenna terahertz microresonator. Light: Science and Applications, 2017, 6, e17054-e17054.	7.7	12
24	Selfmix and optomechanics with silicon nitride membrane. , 2017, , .		0
25	Terahertz quantum cascade dipole-antenna vertically emitting continuous wave laser. , 2017, , .		0
26	Thermal noise and optomechanical features in the emission of a membrane-coupled compound cavity laser diode. Scientific Reports, 2016, 6, 31489.	1.6	8
27	Ultrafast optical modulation of magneto-optical terahertz effects occurring in a graphene-loaded resonant metasurface. Proceedings of SPIE, 2016, , .	0.8	1
28	Quantum electromechanics on silicon nitride nanomembranes. Nature Communications, 2016, 7, 12396.	5.8	58
29	Hyperuniform disordered terahertz quantum cascade laser. Scientific Reports, 2016, 6, 19325.	1.6	40
30	Anisotropic straining of graphene using micropatterned SiN membranes. APL Materials, 2016, 4, .	2.2	11
31	A self-stabilized coherent phonon source driven by optical forces. Scientific Reports, 2015, 5, 15733.	1.6	39
32	Magneto-optic transmittance modulation observed in a hybrid graphene-“split ring resonator terahertz metasurface. Applied Physics Letters, 2015, 107, .	1.5	39
33	Far-field characterization of the thermal dynamics in lasing microspheres. Scientific Reports, 2015, 5, 14452.	1.6	2
34	Complete thermoelectric benchmarking of individual InSb nanowires using combined micro-Raman and electric transport analysis. Nano Research, 2015, 8, 4048-4060.	5.8	32
35	Distributed feedback terahertz frequency quantum cascade lasers with dual periodicity gratings. Applied Physics Letters, 2015, 106, .	1.5	18
36	Strong opto-electro-mechanical coupling in a silicon photonic crystal cavity. Optics Express, 2015, 23, 3196.	1.7	52

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37	THz quantum cascade lasers based on a hyperuniform design. Proceedings of SPIE, 2015, , .	0.8	9
38	Dynamical back-action at 5.5 GHz in a corrugated optomechanical beam. AIP Advances, 2014, 4, .	0.6	18
39	Electrical properties and band diagram of InSb-InAs nanowire type-III heterojunctions. Journal of Applied Physics, 2013, 113, .	1.1	4
40	Oscillatory Vertical Coupling between a Whispering-Gallery Resonator and a Bus Waveguide. Physical Review Letters, 2013, 110, 163901.	2.9	38
41	Room temperature terahertz detectors based on semiconductor nanowire field effect transistors. , 2012, , .		0
42	Electron beam induced current in InSb-InAs nanowire type-III heterostructures. Applied Physics Letters, 2012, 101, 063116.	1.5	15
43	Silicon nanocluster sensitization of erbium ions under low-energy optical excitation. Journal of Applied Physics, 2012, 111, 094314.	1.1	4
44	Semiconductor nanowire field-effect transistors: towards high-frequency THz detectors. , 2012, , .		1
45	Contacts shielding in nanowire field effect transistors. Journal of Applied Physics, 2012, 111, 064301.	1.1	6
46	Terahertz detection by heterostructured InAs/InSb nanowire based field effect transistors. Applied Physics Letters, 2012, 101, 141103.	1.5	25
47	Electrostatic Spin Control in InAs/InP Nanowire Quantum Dots. Nano Letters, 2012, 12, 4490-4494.	4.5	26
48	Room-Temperature Terahertz Detectors Based on Semiconductor Nanowire Field-Effect Transistors. Nano Letters, 2012, 12, 96-101.	4.5	171
49	Second-order susceptibility $\chi^{(2)}$ in Si waveguides. , 2011, , .		0
50	Nanowire-based architectures for the detection of THz radiation. , 2011, , .		0
51	Photoluminescence of hydrophilic silicon nanocrystals in aqueous solutions. Nanotechnology, 2011, 22, 215704.	1.3	20
52	Si nanoclusters coupled to Er ³⁺ ions in a SiO ₂ matrix for optical amplifiers. Optical Materials, 2011, 33, 1086-1090.	1.7	4
53	InAs/InP/InSb Nanowires as Low Capacitance n - n Heterojunction Diodes. Physical Review X, 2011, 1, .	2.8	21
54	Continuous wave spectroscopy of nonlinear dynamics of Si nanocrystals in a microdisk resonator. Physical Review B, 2011, 84, .	1.1	2

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55	Copropagating pump and probe experiments on Si-nc in SiO ₂ rib waveguides doped with Er: The optical role of non-emitting ions. Applied Physics Letters, 2011, 99, 231114.	1.5	8
56	Modeling of Slot Waveguide Sensors Based on Polymeric Materials. Sensors, 2011, 11, 7327-7340.	2.1	17
57	Probing the Spontaneous Emission Dynamics in Si-Nanocrystals-Based Microdisk Resonators. Physical Review Letters, 2010, 104, 103901.	2.9	22
58	Energy transfer mechanism and Auger effect in Er ³⁺ coupled silicon nanoparticle samples. Journal of Applied Physics, 2010, 108, 053518.	1.1	28
59	Purcell factor and superradiance in Si-patterned waveguides. Optics Letters, 2010, 35, 3384.	1.7	2
60	Spontaneous emission dynamics and Purcell enhancement in Si-nc-based microdisk resonators. , 2010, , .		0
61	Energy transfer between amorphous Si nanoclusters and Er ³⁺ ions in a SiO ₂ matrix. Physical Review B, 2009, 79, .	1.1	36
62	Optically active Er ³⁺ ions in SiO ₂ codoped with Si nanoclusters. Journal of Applied Physics, 2009, 106, 093107.	1.1	16
63	Silicon quantum dots in microdisk resonators: whispering-gallery modes, stress-induced Q-factor tuning and enhancement. , 2009, , .		0
64	Silicon Nanocrystals as an Enabling Material for Silicon Photonics. Proceedings of the IEEE, 2009, 97, 1250-1268.	16.4	74
65	Assessment of the main material issues for achieving an Er coupled to silicon nanoclusters infrared amplifier. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1029-1033.	1.3	12
66	Whispering-gallery mode micro-kylix resonators. Optics Express, 2009, 17, 9434.	1.7	10
67	NanoSi low loss horizontal slot waveguides coupled to high Q ring resonators. Optics Express, 2009, 17, 20762.	1.7	38
68	NanoSi low loss horizontal slot waveguides coupled to high Q ring resonators: Erratum. Optics Express, 2009, 17, 23556.	1.7	0
69	Q-factor tuning in all-active whispering-gallery mode resonators with Si-nc. , 2009, , .		0
70	Silicon quantum dots in microdisk resonators: Stress-engineering of disk core for q-factor tuning and enhancement. , 2009, , .		0
71	Er-doped Si nanoclusters waveguides longitudinally pumped by broad area lasers for optical amplification. Proceedings of SPIE, 2009, , .	0.8	0
72	Low dimensional silicon structures for photonic and sensor applications. Applied Surface Science, 2008, 255, 624-627.	3.1	8

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73	Whispering-gallery modes and light emission from a Si-nanocrystal-based single microdisk resonator. Optics Express, 2008, 16, 13218.	1.7	54
74	Er ³⁺ coupled to Si nanoclusters rib waveguides. , 2008, , .		0
75	Further improvements in Er ³⁺ coupled to Si nanoclusters rib waveguides. , 2008, , .		10
76	Coupled cavities in one-dimensional photonic crystal based on horizontal slot waveguide structure with Si-nc. , 2008, , .		2
77	Quantification of the carrier absorption losses in Si-nanocrystal rich rib waveguides at 1.54 μ m. Applied Physics Letters, 2008, 92, 051101.	1.5	45
78	Whispering-gallery modes and Purcell effect in a Si-nanocrystal-based single microdisk resonator. , 2008, , .		0
79	Assessment of the Excited Carrier absorption losses in Si-nc rib-waveguides. , 2007, , .		0
80	Erbium and Silicon nanocrystals for light amplification. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	2
81	Silicon Photonics at University of Trento. , 2007, , .		0
82	Mechanical Mode Engineering with Orthotropic Metamaterial Membranes. Advanced Materials Technologies, 0, , 2200337.	3.0	3