

Ilkka Juhani Tittonen

List of Publications by Year in descending order

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95
papers

1,975
citations

304368

22
h-index

288905

40
g-index

95
all docs

95
docs citations

95
times ranked

2087
citing authors

#	ARTICLE	IF	CITATIONS
1	Inkjet Printed Large-Area Flexible Few-Layer Graphene Thermoelectrics. <i>Advanced Functional Materials</i> , 2018, 28, 1800480.	7.8	136
2	Interferometric measurements of the position of a macroscopic body: Towards observation of quantum limits. <i>Physical Review A</i> , 1999, 59, 1038-1044.	1.0	125
3	A 12 MHz micromechanical bulk acoustic mode oscillator. <i>Sensors and Actuators A: Physical</i> , 2002, 101, 1-9.	2.0	125
4	All-optical atomic clock based on coherent population trapping in ^{85}Rb . <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 273.	0.9	120
5	Low-energy elementary excitations of a trapped Bose-condensed gas. <i>Physical Review A</i> , 1997, 56, R3346-R3349.	1.0	98
6	Anderson Localization Quenches Thermal Transport in Aperiodic Superlattices. <i>Physical Review Letters</i> , 2019, 122, 105901.	2.9	76
7	Gamma echo. <i>Physical Review Letters</i> , 1991, 66, 2037-2040.	2.9	69
8	CuI p-type thin films for highly transparent thermoelectric p-n modules. <i>Scientific Reports</i> , 2018, 8, 6867.	1.6	62
9	The fabrication of silicon nanostructures by focused-ion-beam implantation and TMAH wet etching. <i>Nanotechnology</i> , 2010, 21, 145301.	1.3	59
10	Quantum noise in the position measurement of a cavity mirror undergoing Brownian motion. <i>Physical Review A</i> , 1999, 60, 538-548.	1.0	53
11	Observation of Mössbauer resonance line splitting caused by Rabi oscillations. <i>Physical Review Letters</i> , 1992, 69, 2815-2818.	2.9	50
12	Highly transparent copper iodide thin film thermoelectric generator on a flexible substrate. <i>RSC Advances</i> , 2019, 9, 35384-35391.	1.7	44
13	Long-term stability of single-crystal silicon microresonators. <i>Sensors and Actuators A: Physical</i> , 2004, 115, 23-27.	2.0	41
14	Stepwise phase modulation of recoilless gamma radiation in a coincidence experiment: Gamma echo. <i>Physical Review B</i> , 1993, 47, 7840-7846.	1.1	35
15	Fabrication and characterization of an ultrasensitive acousto-optical cantilever. <i>Journal of Micromechanics and Microengineering</i> , 2007, 17, 852-859.	1.5	31
16	Measurement of thin film thermal conductivity using the laser flash method. <i>Nanotechnology</i> , 2015, 26, 195706.	1.3	29
17	Thermal conductivity of amorphous $\text{Al}_2\text{O}_3/\text{TiO}_2$ nanolaminates deposited by atomic layer deposition. <i>Nanotechnology</i> , 2016, 27, 445704.	1.3	27
18	Optimization of Cuprous Oxides Thin Films to be used as Thermoelectric Touch Detectors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6520-6529.	4.0	27

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19	Influence of aluminium doping on thermoelectric performance of atomic layer deposited ZnO thin films. Applied Physics Letters, 2013, 103, 203903.	1.5	26
20	Focused ion beam lithography for fabrication of suspended nanostructures on highly corrugated surfaces. Nanotechnology, 2014, 25, 335302.	1.3	26
21	Biomimetic zinc chlorinâ€™poly(4-vinylpyridine) assemblies: doping level dependent emissionâ€™absorption regimes. Journal of Materials Chemistry C, 2013, 1, 2166.	2.7	24
22	Semiclassical computations of time-dependent tunneling. Physical Review A, 1995, 51, 2826-2837.	1.0	22
23	High-quality crystallinity controlled ALD TiO ₂ for waveguiding applications. Optics Letters, 2013, 38, 3980.	1.7	22
24	Compact external-cavity diode laser with a novel transmission geometry. Optics Communications, 2000, 174, 175-180.	1.0	20
25	Transparent, Flexible, and Passive Thermal Touch Panel. Advanced Materials Technologies, 2016, 1, 1600204.	3.0	20
26	Size- and density-controlled photodeposition of metallic platinum nanoparticles on titanium dioxide for photocatalytic applications. Journal of Materials Chemistry A, 2019, 7, 14519-14525.	5.2	20
27	Atomic layer deposited alumina (Al ₂ O ₃) thin films on a high-Q-mechanical silicon oscillator. Journal of Micromechanics and Microengineering, 2007, 17, 737-742.	1.5	19
28	Characterization of superconducting Bi ₂ Sr ₂ Ca _n ~1Cu _n O _{4+2n} phases with Fe ⁵⁷ Mössbauer spectroscopy. Physical Review B, 1990, 42, 4212-4218.	1.1	18
29	Mössbauer-NMR double resonance. Physical Review B, 1995, 52, 10268-10277.	1.1	18
30	Improvement of the Conversion Performance of a Resonating Multimode Microelectromechanical Mixer-Filter Through Parametric Amplification. IEEE Electron Device Letters, 2007, 28, 970-972.	2.2	17
31	Short pulse, high peak power, diode pumped, passively Q-switched 946nm Nd:YAG laser. Optics Communications, 2007, 273, 496-499.	1.0	17
32	Sensitivity-improved silicon cantilever microphone for acousto-optical detection. Sensors and Actuators A: Physical, 2013, 190, 90-95.	2.0	17
33	Europium-based high-temperature superconductors studied by x-ray diffraction and Eu ¹⁵¹ Mössbauer spectroscopy. Physical Review B, 1992, 46, 8534-8541.	1.1	16
34	Atomic layer deposition enhanced rapid dry fabrication of micromechanical devices with cryogenic deep reactive ion etching. Journal of Micromechanics and Microengineering, 2007, 17, 1731-1736.	1.5	16
35	Effect of optical pumping on alkali-atom Doppler-limited spectra. Journal of Modern Optics, 2007, 54, 2779-2793.	0.6	16
36	Interaction-time-averaged optical pumping in alkali-metal-atom Doppler spectroscopy. Physical Review A, 2009, 80, .	1.0	16

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37	Enhanced Thermoelectric Transport and Stability in Atomic Layer Deposited-HfO ₂ /ZnO and TiO ₂ /ZnO-Sandwiched Multilayer Thin Films. ACS Applied Materials & Interfaces, 2020, 12, 49210-49218.	4.0	16
38	Hydrogen induced interface engineering in Fe ₂ O ₃ â€“TiO ₂ heterostructures for efficient charge separation for solar-driven water oxidation in photoelectrochemical cells. RSC Advances, 2021, 11, 4297-4307.	1.7	16
39	Solar-Powered Carbon Fixation for Food and Feed Production Using Microorganismsâ€™ A Comparative Techno-Economic Analysis. ACS Omega, 2020, 5, 33242-33252.	1.6	16
40	GHz-range FSK-reception with microelectromechanical resonators. Sensors and Actuators A: Physical, 2008, 142, 346-351.	2.0	15
41	Towards Micromechanical Radio: Overtone Excitations of a Microresonator Through the Nonlinearities of the Second and Third Order. Journal of Microelectromechanical Systems, 2008, 17, 363-369.	1.7	15
42	ALD-Assisted Multiorder Dispersion Engineering of Nanophotonic Strip Waveguides. Journal of Lightwave Technology, 2012, 30, 2488-2493.	2.7	15
43	Improved SERS Intensity from Silverâ€“Coated Black Silicon by Tuning Surface Plasmons. Advanced Materials Interfaces, 2014, 1, 1300008.	1.9	15
44	Large-area thermoelectric high-aspect-ratio nanostructures by atomic layer deposition. Nanotechnology, 2016, 27, 355403.	1.3	15
45	Thermal tuning of laser pulse parameters in passively Q-switched Nd:YAG lasers. Applied Optics, 2008, 47, 4262.	2.1	14
46	Broadband laser polarization control with aligned carbon nanotubes. Nanoscale, 2015, 7, 11199-11205.	2.8	14
47	Percolation models in granular high-T _c superconductors in the transition region. Physical Review B, 1989, 39, 7251-7254.	1.1	13
48	Effect of a phase step on two-level atoms in a cavity. Optics Communications, 1996, 124, 271-276.	1.0	13
49	Excitation-dependent fluorescence from atomic/molecular layer deposited sodium-uracil thin films. Scientific Reports, 2017, 7, 6982.	1.6	13
50	Synergies of co-doping in ultra-thin hematite photoanodes for solar water oxidation: In and Ti as representative case. RSC Advances, 2020, 10, 33307-33316.	1.7	13
51	Optical actuation of a macroscopic mechanical oscillator. Applied Physics B: Lasers and Optics, 2005, 81, 589-596.	1.1	12
52	Europium substitution effects in superconducting YBa ₂ Cu ₄ O ₈ synthesized under one atmosphere oxygen pressure. Physical Review B, 1994, 50, 4154-4158.	1.1	11
53	Towards broad-bandwidth polarization-independent nanostrip waveguide ring resonators. Optics Express, 2013, 21, 9974.	1.7	10
54	Large-Area Thermal Distribution Sensor Based on Multilayer Graphene Ink. Sensors, 2020, 20, 5188.	2.1	10

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55	Two-electron semiconductor gate. <i>Physical Review B</i> , 1995, 52, 10972-10978.	1.1	9
56	Realization of the luminous-flux unit using a LED scanner for the absolute integrating-sphere method. <i>Metrologia</i> , 2000, 37, 595-598.	0.6	9
57	Fluorescence-enhancing plasmonic silver nanostructures using azopolymer lithography. <i>RSC Advances</i> , 2016, 6, 48129-48136.	1.7	9
58	Thermal conductivity suppression in GaAs ϵ -AlAs core ϵ -shell nanowire arrays. <i>Nanoscale</i> , 2019, 11, 20507-20513.	2.8	9
59	Floquet-state perturbation theory for the radio-frequency modulation of the Mössbauer resonance. <i>Physical Review A</i> , 1996, 53, 1112-1119.	1.0	8
60	Effect of Synthesis Conditions of Nitrogen and Platinum Co-Doped Titania Films on the Photocatalytic Performance under Simulated Solar Light. <i>Catalysts</i> , 2020, 10, 1074.	1.6	8
61	Silicon Micromechanical Resonators for RF-Applications. <i>Physica Scripta</i> , 2004, T114, 181-183.	1.2	8
62	Studies of hyperfine interactions in $R\text{Ba}_2(\text{Cu}_{1-x}\text{Fe}_x)\text{O}_{7-\delta}$ high- T_c superconductors. <i>Hyperfine Interactions</i> , 1990, 55, 1399-1403.	0.2	7
63	Theoretical aspects of double resonance phenomena in Mn^{2+} Mössbauer spectroscopy. <i>Hyperfine Interactions</i> , 1993, 78, 397-401.	0.2	7
64	Non-tilting out-of-plane mode high-Q-mechanical silicon oscillator. <i>Journal of Micromechanics and Microengineering</i> , 2005, 15, 1848-1853.	1.5	7
65	Short pulse, diode pumped, passively Q-switched Nd:YAG laser at 946 nm quadrupled for UV production. <i>Journal of the European Optical Society-Rapid Publications</i> , 0, 3, .	0.9	7
66	Aluminum oxide mask fabrication by focused ion beam implantation combined with wet etching. <i>Nanotechnology</i> , 2013, 24, 175304.	1.3	7
67	Precise determination of the hyperfine parameters of europium in multiferroite perovskites by $\text{Eu}^{151}\text{Mössbauer}$ spectroscopy. <i>Physical Review B</i> , 1994, 49, 15280-15286.	1.1	6
68	Passively Q-switched Nd:YAG pumped UV lasers at 280 and 374nm. <i>Optics Communications</i> , 2009, 282, 2930-2933.	1.0	6
69	Drug precursor vapor phase sensing by cantilever enhanced photoacoustic spectroscopy and quantum cascade laser. <i>Proceedings of SPIE</i> , 2012, , .	0.8	6
70	Coherent Terahertz Control of Vertical Transport in Semiconductor Heterostructures. <i>Physical Review Letters</i> , 2015, 114, 116802.	2.9	6
71	Large-area implementation and critical evaluation of the material and fabrication aspects of a thin-film thermoelectric generator based on aluminum-doped zinc oxide. <i>Renewable Energy</i> , 2020, 147, 1292-1298.	4.3	6
72	Silicon dioxide mask by plasma enhanced atomic layer deposition in focused ion beam lithography. <i>Nanotechnology</i> , 2017, 28, 085303.	1.3	5

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73	Photodeposition of RuO ₂ Nanostructures on TiO ₂ Films with a Controllable Morphology. ACS Omega, 2020, 5, 10671-10679.	1.6	5
74	Characterization of the europium substituted superconducting Bi ₂ Sr ₂ CaCu ₂ O _{8+y} phase. Superconductor Science and Technology, 1992, 5, 476-481.	1.8	4
75	Direct GaAs Nanowire Growth and Monolithic Light-Emitting Diode Fabrication on Flexible Plastic Substrates. Advanced Photonics Research, 2022, 3, .	1.7	4
76	Eu ^{151m} Mössbauer spectroscopy and x-ray-diffraction studies on the Pb ₂ Ba ₂ EuCu ₃ O _{8+δ} system. Physical Review B, 1994, 50, 16040-16043.	1.1	3
77	Design and fabrication of a tuning fork shaped voltage controlled resonator with additional tuning electrodes for low-voltage applications. Procedia Engineering, 2010, 5, 882-885.	1.2	3
78	Electrostatic and RF-Properties of MEMS Structures. , 2010, , 221-237.		3
79	Computational Study Revealing the Influence of Surface Phenomena in p-GaAs Water-Splitting Cells. Journal of Physical Chemistry C, 2021, 125, 12478-12487.	1.5	3
80	Thermoelectric Characteristics of InAs Nanowire Networks Directly Grown on Flexible Plastic Substrates. ACS Applied Energy Materials, 0, , .	2.5	3
81	Invariant time object in particle tunnelling. Europhysics Letters, 1996, 33, 689-694.	0.7	2
82	Stepwise phase modulation of atoms coupled to a quasicontinuum of states in a cavity. Journal of Modern Optics, 1998, 45, 23-33.	0.6	2
83	Non-tilting out-of-plane mode high-Q mechanical silicon oscillator as a moving cavity mirror. Applied Physics B: Lasers and Optics, 2007, 88, 417-423.	1.1	2
84	Electrostatic and RF-Properties of MEMS Structures. , 2015, , 294-312.		2
85	Experiments with Coherent ³ F ₄ Fields: Gamma Echo and Related Phenomena. Hyperfine Interactions, 2001, 135, 167-190.	0.2	1
86	Localized Gallium Doping and Cryogenic Deep Reactive Ion etching in Fabrication of Silicon Nanostructures. Materials Research Society Symposia Proceedings, 2009, 1181, 84.	0.1	1
87	Drugs and precursor sensing by complementing low cost multiple techniques: overview of the European FP7 project CUSTOM. , 2012, , .		1
88	Fabrication of large-area plasmonic nanostructures for surface enhanced fluorescence. , 2013, , .		1
89	Light-harvesting zinc chlorin-poly(4-vinylpyridine) complexes. , 2014, , .		1
90	InSb Nanowire Direct Growth on Plastic for Monolithic Flexible Device Fabrication. ACS Applied Electronic Materials, 2022, 4, 539-545.	2.0	1

#	ARTICLE	IF	CITATIONS
91	<title>Optical interferometric detection of a mechanical silicon oscillator</title>. , 2002, 4755, 430.		0
92	Correction to "Towards micromechanical radio: overtone excitations of a microresonator through the nonlinearities of the second and third order". Journal of Microelectromechanical Systems, 2008, 17, 1557-1557.	1.7	0
93	Cast Monocrystalline Silicon: New Alternative for Micro- and Nano-Electromechanical Systems?. Journal of Microelectromechanical Systems, 2019, 28, 695-699.	1.7	0
94	Coherent Control of Correlation Transport between Semiconductor Quantum Wells. , 2015, , .		0
95	Electrostatic and RF-properties of MEMS structures. , 2020, , 305-324.		0