

Anthony Levi

List of Publications by Year in descending order

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174
papers

6,840
citations

76196

40
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64668

79
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183
all docs

183
docs citations

183
times ranked

4189
citing authors

#	ARTICLE	IF	CITATIONS
1	Supersymmetry with self-consistent Schrödinger-Poisson equations: finding partner potentials and breaking symmetry. New Journal of Physics, 2021, 23, 063026.	1.2	1
2	Density of states and particle statistics. , 2020, , 1-20.		0
3	Toward Quantum Engineering. , 2020, , 1-10.		0
4	Expectation value $\langle \hat{H} \rangle$. , 2020, , 1-4.		0
5	Non-Equilibrium Minority Carrier Transport. , 2020, , 1-24.		0
6	Physical Values. , 2020, , 1-2.		0
7	Semiconductors and Quantized States. , 2020, , 1-34.		0
8	Optimal heterostructure device design. , 2020, , 1-14.		0
9	The Boltzmann transport equation. , 2020, , 1-6.		0
10	Non-equilibrium electron scattering in n-type semiconductors. , 2020, , 1-32.		0
11	Semiclassical Electron Transport. , 2020, , 1-24.		0
12	Graphene. , 2020, , 1-6.		0
13	Electron Transmission. , 2020, , 1-28.		0
14	Electron-Phonon Scattering in Semiconductors. , 2020, , 1-20.		0
15	The Lindhard dielectric function. , 2020, , 1-12.		0
16	Crystal systems and the reciprocal lattice. , 2020, , 1-4.		0
17	Permittivity and effective potential in the linear response approximation. , 2020, , 1-2.		0
18	Behavioral regimes and long-lived emitter states in mesolasers. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 245401.	0.6	0

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19	Quantum Behavior in Mesoscale Lasers. , 2019, , .		0
20	Three-dimensional imaging of integrated circuits with macro- to nanoscale zoom. Nature Electronics, 2019, 2, 464-470.	13.1	96
21	Nanoscale x-ray imaging of circuit features without wafer etching. Physical Review B, 2017, 95, .	1.1	40
22	Quantification and control of non-Markovian evolution in finite quantum systems via feedback. Physical Review A, 2014, 89, .	1.0	3
23	Coherent control of non-Markovian photon-resonator dynamics. Physical Review A, 2014, 90, .	1.0	2
24	Gate tunable graphene-silicon Ohmic/Schottky contacts. Applied Physics Letters, 2012, 101, .	1.5	40
25	Optimal design of heterostructure tunnel diode with nonlinear current-voltage characteristic. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 44, 1503-1509.	1.3	4
26	Photonic microwave down-conversion based on linear modulation and filtering. , 2011, , .		0
27	Graphene-Silicon Schottky Diodes. Nano Letters, 2011, 11, 1863-1867.	4.5	435
28	Optimal design of a semiconductor heterostructure tunnel diode with linear current-voltage characteristic. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 44, 322-326.	1.3	2
29	Ring resonator-based photonic microwave receiver modulator with picowatt sensitivity. IET Optoelectronics, 2011, 5, 36-39.	1.8	7
30	Quantum fluctuations and saturable absorption in mesoscale lasers. Physical Review A, 2011, 83, .	1.0	9
31	Quantum fluctuations in very small laser diodes. Physical Review A, 2010, 81, .	1.0	15
32	Quantum and semiclassical inelastic electron transport. Physical Review B, 2010, 81, .	1.1	1
33	A Novel Formulation of the Adjoint Method in the Optimal Design of Quantum Electronic Devices. SIAM Journal on Control and Optimization, 2010, 48, 3191-3223.	1.1	14
34	Frontiers in device engineering. , 2009, , 1-31.		0
35	Atoms-up design. , 2009, , 32-50.		0
36	Electron devices and electron transport. , 2009, , 51-87.		0

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37	Design at the classicalâ€“quantum boundary. , 2009, , 123-148.		0
38	Robust optimization in high dimensions. , 2009, , 149-188.		0
39	Mathematical framework for optimal design. , 2009, , 189-245.		0
40	Quantum Fluctuations in Small Lasers. Physical Review Letters, 2009, 102, 053902.	2.9	24
41	Plasmonic excitations in tight-binding nanostructures. Physical Review B, 2009, 80, .	1.1	17
42	Behavior of lasers in the small particle number limit. , 2009, , .		0
43	Self-homodyne photonic microwave receiver architecture based on linear optical modulation and filtering. Microwave and Optical Technology Letters, 2008, 50, 345-350.	0.9	6
44	Towards Quantum Engineering. Proceedings of the IEEE, 2008, 96, 335-342.	16.4	13
45	Electro-optic bistability in a LiNbO3 microdisk resonator. IET Optoelectronics, 2008, 2, 111-114.	1.8	0
46	Optimal control of electromagnetic field using metallic nanoclusters. New Journal of Physics, 2008, 10, 043017.	1.2	18
47	Frontiers in device engineering: synthesis for nonintuitive design. Proceedings of SPIE, 2008, , .	0.8	0
48	Design of resonators using materials with negative refractive index. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 2791.	0.9	2
49	14.6-GHz LiNbO/sub 3/ microdisk photonic self-homodyne RF receiver. IEEE Transactions on Microwave Theory and Techniques, 2006, 54, 821-831.	2.9	31
50	Optimization of aperiodic dielectric structures. Journal of Applied Physics, 2006, 100, 034310.	1.1	40
51	Synthesis of electron transmission in nanoscale semiconductor devices. Applied Physics Letters, 2006, 88, 013502.	1.5	14
52	Electromagnetic Response of Broken-Symmetry Nanoscale Clusters. Physical Review Letters, 2006, 97, 036806.	2.9	25
53	Self-homodyne RF-optical LiNbO3 microdisk receiver. Solid-State Electronics, 2005, 49, 1428-1434.	0.8	29
54	Synthesis for semiconductor device design. Journal of Applied Physics, 2005, 98, 044508.	1.1	1

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55	Aperiodic nanophotonic design. Journal of Applied Physics, 2004, 95, 1420-1426.	1.1	24
56	Adaptive quantum design of atomic clusters. Physical Review B, 2004, 69, .	1.1	9
57	Adaptive design of excitonic absorption in broken-symmetry quantum wells. Applied Physics Letters, 2004, 85, 121-123.	1.5	15
58	MAUI: Enabling Fiber-to-the-Processor With Parallel Multiwavelength Optical Interconnects. Journal of Lightwave Technology, 2004, 22, 2043-2054.	2.7	68
59	Accessing transmission-mode dispersion in super-prisms. Solid-State Electronics, 2003, 47, 1369-1377.	0.8	1
60	Polarization-dependent reflectivity from dielectric nanowires. Applied Physics Letters, 2003, 83, 996-998.	1.5	15
61	Adaptive design of nanoscale dielectric structures for photonics. Journal of Applied Physics, 2003, 94, 6065-6068.	1.1	14
62	<title>Intelligent monitoring and communication system</title>. , 2000, 3995, 566.		0
63	Active microdisk devices. , 2000, 3947, 185.		1
64	Wavelength switching in multi-cavity laser diodes. Journal of Applied Physics, 1998, 84, 1805-1812.	1.1	0
65	A multistate external cavity laser diode. Applied Physics Letters, 1998, 72, 2214-2216.	1.5	2
66	Wavelength switching in multicavity lasers. Applied Physics Letters, 1997, 71, 300-302.	1.5	5
67	Throughput optimization for multimedia applications over high speed networks. , 1997, , 101-114.		0
68	Where next for laser diodes?. Physics World, 1996, 9, 20-22.	0.0	0
69	<title>Video broadcast using an optically controlled serially fed phased-array antenna</title>. , 1996, 2844, 258.		2
70	Transient response of wavelength switching in multicavity mode-locked laser diodes. Applied Physics Letters, 1996, 69, 3647-3649.	1.5	6
71	The effect of scaling microlasers on modal noise. Applied Physics Letters, 1996, 69, 3459-3461.	1.5	0
72	The spectrum of microdisk lasers. Journal of Applied Physics, 1996, 80, 644-653.	1.1	74

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73	Transferred-electron induced current instabilities in heterojunction bipolar transistors. Applied Physics Letters, 1995, 66, 3319-3321.	1.5	8
74	Polarization of lasing emission in microdisk laser diodes. Applied Physics Letters, 1995, 66, 1859-1861.	1.5	20
75	Resonant modes and laser spectrum of microdisk lasers. Applied Physics Letters, 1995, 66, 2932-2934.	1.5	70
76	Comparison of plasma chemistries for patterning InP-based laser structures. Plasma Sources Science and Technology, 1994, 3, 19-24.	1.3	5
77	InGaAs/GaAs quantum well lasers with dry-etched mirror passivated by vacuum atomic layer epitaxy. Applied Physics Letters, 1994, 65, 1748-1750.	1.5	8
78	Comparison of graded and abrupt junction In _{0.53} Ga _{0.47} As heterojunction bipolar transistors. Applied Physics Letters, 1994, 64, 67-69.	1.5	16
79	<title>Microdisk lasers</title>., 1994, , .		1
80	Forward transit delay in In _{0.53} /Ga _{0.47} /As heterojunction bipolar transistors with nonequilibrium electron transport. IEEE Transactions on Electron Devices, 1993, 40, 1942-1949.	1.6	9
81	Directional light coupling from microdisk lasers. Applied Physics Letters, 1993, 62, 561-563.	1.5	174
82	Forward delay in scaled Al _{0.48} In _{0.52} As/In _{0.53} Ga _{0.47} As heterojunction bipolar transistors. Applied Physics Letters, 1993, 63, 2231-2233.	1.5	5
83	Threshold characteristics of semiconductor microdisk lasers. Applied Physics Letters, 1993, 63, 1310-1312.	1.5	241
84	Wavelength dependence of T ₀ in InGaAsP semiconductor laser diodes. Applied Physics Letters, 1993, 62, 2009-2011.	1.5	6
85	Direct observation of the electron spectral function in the integer and fractional quantum Hall regimes by resonant tunneling. Physical Review B, 1993, 47, 16608-16611.	1.1	12
86	Carrier pinning by mode fluctuations in laser diodes. Applied Physics Letters, 1993, 62, 1454-1456.	1.5	10
87	Room-temperature lasing action in In _{0.51} Ga _{0.49} P/In _{0.2} Ga _{0.8} As microcylinder laser diodes. Applied Physics Letters, 1993, 62, 2021-2023.	1.5	80
88	Semiconductor microlasers. Physics World, 1993, 6, 32-35.	0.0	0
89	<title>GeSi infrared photodetectors grown by rapid thermal CVD</title>., 1993, , .		2
90	High Speed Limits of Coplanar Transmission Lines. , 1993, , .		0

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91	Vertical scaling in heterojunction bipolar transistors with nonequilibrium base transport. Applied Physics Letters, 1992, 60, 460-462.	1.5	42
92	On the temperature sensitivity of semiconductor lasers. Applied Physics Letters, 1992, 60, 157-159.	1.5	39
93	Temperature dependence of long wavelength semiconductor lasers. Applied Physics Letters, 1992, 60, 1058-1060.	1.5	36
94	Cavity formation in semiconductor lasers. Applied Physics Letters, 1992, 61, 889-891.	1.5	8
95	Nonlinear spectroscopy near half-bandgap in bulk and quantum well GaAs/AlGaAs waveguides. Journal of Applied Physics, 1992, 71, 1927-1935.	1.1	50
96	Temperature dependence of semiconductor lasers (Invited Paper). , 1992, , .		2
97	Whispering-gallery mode microdisk lasers. Applied Physics Letters, 1992, 60, 289-291.	1.5	1,335
98	Schottky-barrier inhomogeneity at epitaxial NiSi ₂ interfaces on Si(100). Physical Review Letters, 1991, 66, 72-75.	2.9	183
99	Picosecond pump and probe spectroscopy utilizing freely propagating terahertz radiation. Optics Letters, 1991, 16, 48.	1.7	81
100	All-optical timing restoration using a hybrid time-domain chirp switch. Optics Letters, 1991, 16, 1116.	1.7	4
101	Log-periodic antennas for pulsed terahertz radiation. Applied Physics Letters, 1991, 59, 262-264.	1.5	44
102	Single Crystal NiSi ₂ /Si Interfaces: Fabrication, Structures, and Schottky Barrier Heights. Materials Research Society Symposia Proceedings, 1991, 221, 71.	0.1	2
103	Asymmetric line broadening in intracavity loss modulated quantum well distributed feedback lasers. Applied Physics Letters, 1991, 58, 669-671.	1.5	5
104	Ordered monolayer structures of boron in Si(111) and Si(100). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 2269-2272.	0.9	21
105	Large nonlinear phase shifts in low-loss Al _x Ga _{1-x} As waveguides near half-bandgap. Applied Physics Letters, 1991, 59, 2558-2560.	1.5	51
106	Electrical conduction in the Si(111):B-($\sim 3 \text{ \AA} - \sim 3 \text{ \AA}$) ^o /a-Si interface reconstruction. Physical Review B, 1991, 43, 14711-14714.	1.1	23
107	Low-threshold GaAs/AlGaAs quantum-well lasers grown by organometallic vapor-phase epitaxy using trimethylamine alane. Journal of Applied Physics, 1991, 70, 432-435.	1.1	16
108	Saturable absorption in intracavity loss modulated quantum well lasers. Applied Physics Letters, 1991, 59, 16-18.	1.5	18

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109	Ultrahigh-Speed Bipolar Transistors. <i>Physics Today</i> , 1990, 43, 58-64.	0.3	18
110	Dynamic optoelectronic read/write memory. <i>Applied Physics Letters</i> , 1990, 56, 1501-1503.	1.5	1
111	Nonequilibrium electron transport in heterostructure bipolar transistors probed by magnetic field. <i>Applied Physics Letters</i> , 1990, 56, 2660-2662.	1.5	20
112	Direct observation of two-dimensional magnetopolarons in a resonant tunnel junction. <i>Physical Review Letters</i> , 1990, 65, 235-238.	2.9	70
113	Ultrafast coplanar airâ€ transmission lines. <i>Applied Physics Letters</i> , 1990, 57, 1123-1125.	1.5	34
114	Dynamic and static response of multielectrode lasers. <i>Applied Physics Letters</i> , 1990, 57, 968-970.	1.5	26
115	Largeâ€ signal picosecond response of InGaAs/InP quantum well lasers with an intracavity loss modulator. <i>Applied Physics Letters</i> , 1990, 56, 1629-1631.	1.5	7
116	Si(100)â€(2Å-1)boron reconstruction: Selfâ€ limiting monolayer doping. <i>Applied Physics Letters</i> , 1990, 57, 2779-2781.	1.5	54
117	Multielectrode quantum well laser for digital switching. <i>Applied Physics Letters</i> , 1990, 56, 1095-1097.	1.5	19
118	High index contrast mirrors for optical microcavities. <i>Applied Physics Letters</i> , 1990, 57, 1387-1389.	1.5	44
119	Wavelength switching in InGaAs/InP quantum well lasers. <i>Applied Physics Letters</i> , 1990, 56, 122-124.	1.5	16
120	Base doping limits in heterostructure bipolar transistors. <i>Applied Physics Letters</i> , 1990, 56, 1460-1462.	1.5	31
121	Electron transport in an AlSb/InAs/GaSb tunnel emitter hotâ€ electron transistor. <i>Applied Physics Letters</i> , 1989, 55, 1891-1893.	1.5	15
122	AlAs/GaAs tunnel emitter bipolar transistor. <i>Applied Physics Letters</i> , 1989, 54, 2250-2252.	1.5	24
123	Tunneling in the presence of phonons: A solvable model. <i>Physical Review Letters</i> , 1989, 62, 1683-1686.	2.9	88
124	Very low threshold InGaAs/InGaAsP graded index separate confinement heterostructure quantum well lasers grown by atmospheric pressure metalorganic vapor phase epitaxy. <i>Applied Physics Letters</i> , 1989, 55, 2283-2285.	1.5	57
125	Nonrandom doping and elastic scattering of carriers in semiconductors. <i>Applied Physics Letters</i> , 1989, 54, 940-942.	1.5	56
126	Pair-breaking description of the vortex-depinning critical field in YBa ₂ Cu ₃ O ₇ thin films. <i>Physical Review B</i> , 1989, 40, 5243-5246.	1.1	64

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127	Numerical study of nonequilibrium electron transport in AlGaAs/GaAs heterojunction bipolar transistors. Applied Physics Letters, 1989, 55, 250-252.	1.5	19
128	Electrical response of superconducting YBa ₂ Cu ₃ O _{7-δ} to light. Applied Physics Letters, 1989, 54, 1175-1177.	1.5	69
129	Bias-controlled intersubband wavelength switching in a GaAs/AlGaAs quantum well laser. Applied Physics Letters, 1989, 55, 1382-1384.	1.5	22
130	High-frequency study of nonequilibrium transport in heterostructure bipolar transistors. Applied Physics Letters, 1989, 55, 1789-1791.	1.5	20
131	High-field transport in GaAs transistors. Applied Physics Letters, 1989, 54, 813-815.	1.5	21
132	Near-ideal lateral scaling in abrupt Al _{0.48} In _{0.52} As/In _{0.53} Ga _{0.47} As heterostructure bipolar transistors prepared by molecular beam epitaxy. Applied Physics Letters, 1989, 54, 2333-2335.	1.5	52
133	Voltage-controlled Q-switching of InGaAs/InP single quantum well lasers. Applied Physics Letters, 1989, 55, 1940-1942.	1.5	11
134	Ion-beam-induced metal-insulator transition in YBa ₂ Cu ₃ O _{7-δ} : A mobility edge. Physical Review B, 1989, 39, 11599-11602.	1.1	144
135	Ion beam thinning and polishing of YBa ₂ Cu ₃ O ₇ films. Applied Physics Letters, 1989, 55, 1915-1917.	1.5	44
136	Epitaxial NiSi ₂ and CoSi ₂ Interfaces. NATO ASI Series Series B: Physics, 1989, , 167-181.	0.2	5
137	Origin of the Excess Capacitance at Intimate Schottky Contacts. Physical Review Letters, 1988, 60, 53-56.	2.9	202
138	Inelastic scattering of electrons traversing semiconductor heterojunctions. Applied Physics Letters, 1988, 52, 236-238.	1.5	10
139	GaInAs/GaInAsP/InP heterostructure bipolar transistors with very thin base (150 Å...) grown by chemical beam epitaxy. Applied Physics Letters, 1988, 53, 983-985.	1.5	16
140	Controllable reduction of critical currents in YBa ₂ Cu ₃ O _{7-δ} films. Applied Physics Letters, 1988, 53, 1010-1012.	1.5	98
141	Normal-state transport parameters of epitaxial thin films of YBa ₂ Cu ₃ O _{7-δ} . Physical Review B, 1988, 38, 2472-2476.	1.1	80
142	Coreless defects and the continuity of epitaxial NiSi ₂ /Si(100) thin films. Applied Physics Letters, 1988, 52, 828-830.	1.5	32
143	Summary Abstract: Hot-electron transport in the AlSb/InAs/GaSb double heterostructure prepared by molecular-beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1988, 6, 674.	1.6	3
144	Preparation of superconducting thin films of calcium strontium bismuth copper oxides by coevaporation. Applied Physics Letters, 1988, 52, 1828-1830.	1.5	73

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145	Ion-beam-induced destruction of superconducting phase coherence in YBa ₂ Cu ₃ O _{7-x} . Physical Review B, 1988, 37, 3755-3758.	1.1	100
146	Extreme nonequilibrium electron transport in heterojunction bipolar transistors. Applied Physics Letters, 1988, 52, 2247-2249.	1.5	25
147	Quantum reflections and inelastic scattering of electrons in semiconductor heterostructures. Physical Review B, 1988, 38, 9843-9849.	1.1	9
148	Unipolar Hot Electron Transistors. Physica Scripta, 1988, T23, 227-231.	1.2	4
149	Electroluminescence from the base of a GaAs/AlGaAs double heterojunction bipolar transistor. Applied Physics Letters, 1987, 50, 98-100.	1.5	19
150	Nonequilibrium electron transport in bipolar devices. Applied Physics Letters, 1987, 51, 42-44.	1.5	70
151	Room-temperature operation of hot-electron transistors. Applied Physics Letters, 1987, 51, 984-986.	1.5	114
152	Electron-transport dynamics in quantized intrinsic GaAs. Physical Review B, 1987, 36, 9402-9405.	1.1	22
153	Epitaxial yttrium silicide on (111)-silicon by vacuum annealing. Applied Physics Letters, 1987, 51, 311-313.	1.5	48
154	Hot Electron Transistors Using Si/CoSi ₂ . Materials Research Society Symposia Proceedings, 1987, 102, 361.	0.1	6
155	Hot Electron Transistors Using Si/CoSi ₂ . Materials Research Society Symposia Proceedings, 1987, 107, 259.	0.1	7
156	Growth of strained-layer semiconductor-metal-semiconductor heterostructures. Applied Physics Letters, 1986, 48, 1264-1266.	1.5	42
157	Ballistic injection devices in semiconductors. Applied Physics Letters, 1986, 48, 1609-1611.	1.5	48
158	Base transport dynamics in a heterojunction bipolar transistor. Applied Physics Letters, 1986, 49, 1481-1483.	1.5	29
159	Electron Transport Through Epitaxial Metal/Semiconductor Heterostructures. Materials Research Society Symposia Proceedings, 1986, 77, 271.	0.1	4
160	Epitaxial metal-semiconductor structures and their properties. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1986, 4, 1435.	1.6	38
161	States at epitaxial NiSi ₂ /Si heterojunctions studied by deep-level transient spectroscopy and hydrogenation. Physical Review B, 1986, 34, 4415-4418.	1.1	23
162	Control of a natural permeable CoSi ₂ base transistor. Applied Physics Letters, 1986, 48, 635-637.	1.5	127

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163	Schottky-barrier heights of single-crystal NiSi ₂ on Si(111): The effect of a surface-n-junction. Physical Review B, 1986, 33, 7077-7090.	1.1	83
164	Dynamics of injected electron cooling in GaAs. Applied Physics Letters, 1986, 48, 1365-1367.	1.5	7
165	Hot Electron Transistors. Springer Series in Electrophysics, 1986, , 19-23.	0.2	1
166	Injected-Hot-Electron Transport in GaAs. Physical Review Letters, 1985, 55, 2071-2073.	2.9	218
167	Transistor action in Si/CoSi ₂ /Si heterostructures. Applied Physics Letters, 1985, 47, 151-153.	1.5	171
168	Hot-Electron Spectroscopy of GaAs. Physical Review Letters, 1985, 54, 1570-1572.	2.9	140
169	Magnetic field dependence of hot-electron transport in GaAs. Applied Physics Letters, 1985, 47, 964-966.	1.5	11
170	Phonon Structure of Amorphous Germanium by Inelastic Electron Tunnelling Spectroscopy. , 1985, , 913-916.		0
171	Phonon structure of amorphous germanium by inelastic electron tunnelling spectroscopy. Journal of Physics C: Solid State Physics, 1984, 17, 1643-1653.	1.5	12
172	Gigabyte/s data communications with the POLO parallel optical link. , 0, , .		37
173	Aperiodic dielectric design. , 0, , 88-122.		0
174	Supersymmetry with scattering states. Europhysics Letters, 0, , .	0.7	0