

Miquel Garriga

List of Publications by Year in descending order

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123
papers

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109137

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123
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123
docs citations

123
times ranked

4715
citing authors

#	ARTICLE	IF	CITATIONS
1	Interband critical points of GaAs and their temperature dependence. <i>Physical Review B</i> , 1987, 35, 9174-9189.	1.1	786
2	Temperature dependence of the dielectric function and interband critical points in silicon. <i>Physical Review B</i> , 1987, 36, 4821-4830.	1.1	717
3	Optical spectra of SixGe_{1-x} alloys. <i>Journal of Applied Physics</i> , 1989, 65, 2827-2832.	1.1	245
4	Temperature dependence of the interband critical-point parameters of InP. <i>Physical Review B</i> , 1987, 36, 4813-4820.	1.1	213
5	Temperature dependence of the dielectric function and the interband critical points of CdSe. <i>Physical Review B</i> , 1986, 34, 2458-2469.	1.1	176
6	Optical functions of chalcopyrite $\text{CuGa}_x\text{In}_{1-x}\text{Se}_2$ alloys. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, 659-664.	1.1	160
7	Exciton-phonon coupling in diindenoperylene thin films. <i>Physical Review B</i> , 2008, 78, .	1.1	91
8	Photoinduced σ -to π -type Switching in Thermoelectric Polymer-Carbon Nanotube Composites. <i>Advanced Materials</i> , 2016, 28, 2782-2789.	11.1	89
9	Interband transitions of thin-layer GaAs/AlAs superlattices. <i>Physical Review B</i> , 1987, 36, 3254-3258.	1.1	86
10	Enhanced Fano Resonance in Asymmetrical Au:Ag Heterodimers. <i>Journal of Physical Chemistry C</i> , 2011, 115, 6410-6414.	1.5	83
11	Temperature dependence of the dielectric function and the interband critical-point parameters of GaP. <i>Physical Review B</i> , 1993, 48, 7915-7929.	1.1	79
12	Temperature dependence of the dielectric function and the interband critical-point parameters of GaSb. <i>Physical Review B</i> , 1991, 43, 4349-4360.	1.1	77
13	One-Step Macroscopic Alignment of Conjugated Polymer Systems by Epitaxial Crystallization during Spin-Coating. <i>Advanced Functional Materials</i> , 2013, 23, 2368-2377.	7.8	73
14	Temperature dependence of the dielectric function and the interband critical-point parameters of $\text{Al}_x\text{Ga}_{1-x}\text{As}$. <i>Physical Review B</i> , 1991, 43, 11950-11965.	1.1	66
15	Equal Footing of Thermal Expansion and Electron-Phonon Interaction in the Temperature Dependence of Lead Halide Perovskite Band Gaps. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 2971-2977.	2.1	64
16	Anisotropic optical properties of single crystalline PTCDA studied by spectroscopic ellipsometry. <i>Organic Electronics</i> , 2002, 3, 23-31.	1.4	63
17	Controlled Molecular Alignment in Phthalocyanine Thin Films on Stepped Sapphire Surfaces. <i>Advanced Functional Materials</i> , 2002, 12, 455-460.	7.8	62
18	Optical properties of AlAs. <i>Solid State Communications</i> , 1987, 61, 157-160.	0.9	59

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19	Anisotropy of the dielectric function in YBa ₂ Cu ₃ O ₆ . <i>Physical Review B</i> , 1989, 40, 7368-7371.	1.1	57
20	Evidence of quantum confinement effects on interband optical transitions in Si nanocrystals. <i>Physical Review B</i> , 2010, 82, .	1.1	56
21	Effects of oxygen deficiency on the optical spectra of YBa ₂ Cu ₃ O _{7-x} . <i>Solid State Communications</i> , 1988, 66, 1231-1235.	0.9	54
22	Composition dependence of the phonon strain shift coefficients of SiGe alloys revisited. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	51
23	Temperature dependence of optical excitations in M ₂ Ba ₂ Cu ₃ O ₆ (M = Y,Sm). <i>Solid State Communications</i> , 1988, 67, 589-592.	0.9	49
24	Optical properties of chalcopyrite CuAl _{1-x} In _{1-x} Se ₂ alloys. <i>Journal of Applied Physics</i> , 2000, 88, 5796-5801.	1.1	45
25	Interband Transitions in Ultrathin GaAs-AlAs Superlattices. <i>Physical Review Letters</i> , 1988, 61, 1643-1646.	2.9	42
26	Pressure-Induced Locking of Methylammonium Cations versus Amorphization in Hybrid Lead Iodide Perovskites. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22073-22082.	1.5	42
27	Phase Diagram of Methylammonium/Formamidinium Lead Iodide Perovskite Solid Solutions from Temperature-Dependent Photoluminescence and Raman Spectroscopies. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3448-3458.	1.5	42
28	Ellipsometric measurements of high-T _c compounds. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1989, 6, 470.	0.9	41
29	Uniaxial macroscopic alignment of conjugated polymer systems by directional crystallization during blade coating. <i>Journal of Materials Chemistry C</i> , 2014, 2, 3303-3310.	2.7	39
30	Resonant Raman scattering in short-period (Si) _n /(Ge) _m superlattices. <i>Physical Review B</i> , 1989, 40, 1361-1364.	1.1	38
31	Poly(3-hexylthiophene) nanowires in porous alumina: internal structure under confinement. <i>Soft Matter</i> , 2014, 10, 3335.	1.2	38
32	Strong optical anisotropies of F16CuPc thin films studied by spectroscopic ellipsometry. <i>Journal of Chemical Physics</i> , 2003, 119, 6335-6340.	1.2	37
33	E ₂ interband transitions in Al _x Ga _{1-x} As alloys. <i>Physical Review B</i> , 1990, 41, 2959-2965.	1.1	36
34	Structure, morphology, and optical properties of thin films of F16CuPc grown on silicon dioxide. <i>Organic Electronics</i> , 2004, 5, 135-140.	1.4	36
35	Optical transitions near the band edge in bulk Cu _{1-x} Ga _{1-x} Se ₂ from ellipsometric measurements. <i>Materials Chemistry and Physics</i> , 2001, 70, 300-304.	2.0	35
36	Organic solar cells based on nanoporous P3HT obtained from self-assembled P3HT:PS templates. <i>Journal of Materials Chemistry</i> , 2012, 22, 20017.	6.7	35

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37	Optical response of $\text{MBa}_2\text{CuZr}_3\text{O}_7$ 8-type materials. <i>Physica C: Superconductivity and Its Applications</i> , 1988, 153-155, 643-644.	0.6	33
38	One-pot synthesis of polymer/inorganic hybrids: toward readily accessible, low-loss, and highly tunable refractive index materials and patterns. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 65-74.	2.4	32
39	Tailoring thermal conductivity by engineering compositional gradients in $\text{Si}_{1-x}\text{Ge}_x$ superlattices. <i>Nano Research</i> , 2015, 8, 2833-2841.	5.8	31
40	Optical properties of CuAlSe_2 . <i>Journal of Applied Physics</i> , 2000, 88, 1923-1928.	1.1	29
41	Synthesis of nanocrystalline ceria thin films by low-temperature thermal decomposition of Ce-propionate. <i>Thin Solid Films</i> , 2012, 520, 1949-1953.	0.8	29
42	Ultrathin Semiconductor Superabsorbers from the Visible to the Near-Infrared. <i>Advanced Materials</i> , 2018, 30, 1705876.	11.1	29
43	Ellipsometric spectra of $\text{YBa}_2\text{Cu}_3\text{O}_7$ in the 1.7 – 5.3 eV range. <i>Solid State Communications</i> , 1988, 66, 1071-1075.	0.9	26
44	Determination of Thermal Transition Depth Profiles in Polymer Semiconductor Films with Ellipsometry. <i>Macromolecules</i> , 2013, 46, 7325-7331.	2.2	26
45	POSITION AND CHARACTER (ϵ'' OR χ) OF ENERGY STATES IN SHORT-PERIOD $(\text{GaAs})_m(\text{AlAs})_n$ SUPERLATTICES. <i>Journal De Physique Colloque</i> , 1987, 48, C5-495-C5-498.	0.2	25
46	Chalcogenide glass-based rib ARROW waveguide. <i>Journal of Non-Crystalline Solids</i> , 2003, 326-327, 455-459.	1.5	23
47	On the complex refractive index of polymer:fullerene photovoltaic blends. <i>Thin Solid Films</i> , 2014, 571, 371-376.	0.8	23
48	On the determination of anisotropy in polymer thin films: A comparative study of optical techniques. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 1270-1273.	0.8	21
49	Probing local strain and composition in Ge nanowires by means of tip-enhanced Raman scattering. <i>Nanotechnology</i> , 2013, 24, 185704.	1.3	21
50	Optical studies of gap, hopping energies, and the Anderson-Hubbard parameter in the zigzag-chain compound SrCuO_2 . <i>Physical Review B</i> , 2001, 63, .	1.1	20
51	Phonon pressure coefficient as a probe of the strain status of self-assembled quantum dots. <i>Applied Physics Letters</i> , 2007, 91, 081914.	1.5	20
52	Uniaxial anisotropy of organic thin films determined by ellipsometry. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 927-930.	0.8	20
53	In-Plane Epitaxial Growth of Self-Assembled Ge Nanowires on Si Substrates Patterned by a Focused Ion Beam. <i>Crystal Growth and Design</i> , 2011, 11, 3190-3197.	1.4	20
54	Surface vs bulk phase transitions in semiconducting polymer films for OPV and OLED applications. <i>Synthetic Metals</i> , 2012, 161, 2570-2574.	2.1	20

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55	Ultrafast initial relaxation of hot electrons and holes in tetrahedral semiconductors via deformation potential interaction: Theory and experiment. <i>Applied Physics Letters</i> , 1990, 57, 2838-2840.	1.5	19
56	Optical response of Bi ₂ Sr ₂ CaCu ₂ O ₈ superconductors. <i>Solid State Communications</i> , 1990, 73, 127-130.	0.9	19
57	Optical properties of anisotropic materials: an experimental approach. <i>Thin Solid Films</i> , 2004, 455-456, 124-131.	0.8	19
58	Ellipsometric and reflectance studies of GaAs/AlAs superlattices. <i>Applied Physics A: Solids and Surfaces</i> , 1989, 49, 407-412.	1.4	18
59	Self-organization of phthalocyanines on Al ₂ O ₃ (1120) in aligned and ordered films. <i>Journal of Materials Research</i> , 2004, 19, 2061-2067.	1.2	18
60	Density control on self-assembling of Ge islands using carbon-alloyed strained SiGe layers. <i>Applied Physics Letters</i> , 2006, 89, 101921.	1.5	18
61	Influence of alloy inhomogeneities on the determination by Raman scattering of composition and strain in Si _{1-x} Ge _x /Si(001) layers. <i>Journal of Applied Physics</i> , 2012, 112, 023512.	1.1	18
62	Optical properties of ceria-zirconia epitaxial films grown from chemical solutions. <i>Materials Chemistry and Physics</i> , 2013, 138, 462-467.	2.0	18
63	Influence of Si interdiffusion on carbon-induced growth of Ge quantum dots: a strategy for tuning island density. <i>Nanotechnology</i> , 2006, 17, 2602-2608.	1.3	17
64	Resonant Raman scattering in the Pb ₂ Sr ₂ (Y,Ca)Cu ₃ O ₈ superconductor. <i>Physical Review B</i> , 1990, 41, 830-833.	1.1	16
65	Interband transitions in YBa ₂ Cu ₃ O ₇ . <i>Physica C: Superconductivity and Its Applications</i> , 1992, 192, 473-480.	0.6	16
66	Temperature dependence of the dielectric function and interband critical points of AlAs obtained on an MBE grown layer. <i>Thin Solid Films</i> , 1993, 233, 122-125.	0.8	16
67	Determination of the dielectric tensor in anisotropic materials. <i>Applied Physics Letters</i> , 1995, 67, 596-598.	1.5	16
68	Vapour printing: patterning of the optical and electrical properties of organic semiconductors in one simple step. <i>Journal of Materials Chemistry</i> , 2012, 22, 4519.	6.7	16
69	Optical characterization of InAs monolayer structures grown on (113)A and (001) GaAs substrates. <i>Applied Physics Letters</i> , 1993, 62, 1000-1002.	1.5	15
70	Evolution of strain and composition during growth and capping of Ge quantum dots with different morphologies. <i>Nanotechnology</i> , 2007, 18, 475401.	1.3	15
71	Real-time studies during coating and post-deposition annealing in organic semiconductors. <i>Thin Solid Films</i> , 2011, 519, 2678-2681.	0.8	15
72	Temperature dependence of the dielectric function and the interband critical-point parameters of GaP. <i>Thin Solid Films</i> , 1993, 233, 185-188.	0.8	14

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73	Using high pressure to unravel the mechanism of visible emission in amorphous Si/SiO _x nanoparticles. Physical Review B, 2014, 89, .	1.1	14
74	Dependence on pressure of the refractive indices of wurtzite ZnO, GaN, and AlN. Physical Review B, 2014, 90, .	1.1	13
75	Quantifying thermal transport in buried semiconductor nanostructures via cross-sectional scanning thermal microscopy. Nanoscale, 2021, 13, 10829-10836.	2.8	12
76	Raman spectroscopy as a probe of molecular order, orientation, and stacking of fluorinated copper phthalocyanine (CuPc) thin films. Journal of Raman Spectroscopy, 2013, 44, 597-607.	1.2	11
77	Photoluminescence of Bound Exciton Complexes and Assignment to Shallow Defects in Methylammonium/Formamidinium Lead Iodide Mixed Crystals. Advanced Optical Materials, 2021, 9, 2001969.	3.6	11
78	Quantum well laser with single InAs monolayer in active region. Electronics Letters, 1992, 28, 935-937.	0.5	10
79	Influence of tensile and compressive strain on the band gap energy of ordered InGaP. Applied Physics Letters, 2001, 79, 2758-2760.	1.5	10
80	Ellipsometric study of crystallization of amorphous Ge thin films embedded in SiO ₂ . Thin Solid Films, 2008, 516, 4277-4281.	0.8	10
81	Temperature dependence of the refractive index of crystalline germanium-silicon alloys. Applied Physics A: Materials Science and Processing, 1993, 56, 259-261.	1.1	9
82	Ellipsometric measurement of the dielectric tensor of Nd _{2-x} Ce _x CuO ₄ . Physical Review B, 1997, 55, 3216-3221.	1.1	9
83	Growth of Si nuclei on SiO ₂ for quantum dot memory applications. Microelectronic Engineering, 1999, 48, 431-434.	1.1	9
84	Ellipsometry on Very Thick Multilayer Structures. Physica Status Solidi (B): Basic Research, 1999, 215, 247-251.	0.7	9
85	Thermal transport in epitaxial Si _{1-x} Ge _x alloy nanowires with varying composition and morphology. Nanotechnology, 2017, 28, 505704.	1.3	9
86	Beating the Thermal Conductivity Alloy Limit Using Long-Period Compositionally Graded Si _{1-x} Ge _x Superlattices. Journal of Physical Chemistry C, 2020, 124, 19864-19872.	1.5	9
87	Optical anisotropy in the Pb ₂ Sr ₂ (Y, Ca)Cu ₃ O ₈ superconductor. Physica C: Superconductivity and Its Applications, 1991, 174, 377-382.	0.6	8
88	Optical determination of growth variants in ordered GaInP. Solid State Communications, 1997, 101, 757-760.	0.9	8
89	Raman scattering interferences as a probe of vertical coherence in multilayers of carbon-induced Ge quantum dots. Physical Review B, 2007, 76, .	1.1	8
90	Effect of strain and ordering on the band-gap energy of InGaP. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 88, 139-142.	1.7	7

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91	Measurement of phonon pressure coefficients for a precise determination of deformation potentials in SiGe alloys. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 548-552.	0.7	7
92	Spectroscopic ellipsometry study of FA _{1-x} MA _{1-x} PbI ₃ hybrid perovskite single crystals. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019, 37, .	0.6	7
93	Composition and Strain Imaging of Epitaxial In-Plane SiGe Alloy Nanowires by Micro-Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 22154-22163.	1.5	6
94	Evaluation of the dielectric function of colloidal Cd _{1-x} Hg _x Te quantum dot films by spectroscopic ellipsometry. <i>Applied Surface Science</i> , 2017, 421, 295-300.	3.1	6
95	Doping dependence of the ellipsometric spectra of Nd _{2-x} Ce _x CuO ₄ single crystals. <i>Physica C: Superconductivity and Its Applications</i> , 1998, 299, 41-51.	0.6	5
96	The 2:1 complex of 4-aminobenzoic acid and 4,4'-bipyridylN,N'-dioxide. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2003, 59, o495-o497.	0.2	5
97	Raman scattering of capped and uncapped carbon-induced Ge dots under hydrostatic pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 76-81.	0.7	5
98	Growth dynamics of C-induced Ge dots on Si _{1-x} Ge _x strained layers. <i>Surface Science</i> , 2007, 601, 2783-2786.	0.8	5
99	The dielectric tensor of monoclinic 3,4,9,10-perylene tetracarboxylic dianhydride in the visible spectral range. <i>Thin Solid Films</i> , 2014, 571, 420-425.	0.8	5
100	Growth of Nanoscale Si Nuclei on SiO ₂ by Rapid Thermal Chemical Vapor Deposition. <i>Journal of the Electrochemical Society</i> , 1999, 146, 4219-4225.	1.3	4
101	Ellipsometric measurements of quantum confinement effects on higher interband transitions of Ge nanocrystals. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 888-891.	0.8	4
102	Growth and Characterization of Epitaxial In-plane SiGe Alloy Nanowires. <i>Materials Today: Proceedings</i> , 2015, 2, 548-556.	0.9	4
103	Growth and characterization of AlAs/GaNAs multiple quantum wells. <i>Journal of Crystal Growth</i> , 1993, 127, 611-615.	0.7	3
104	Spectral ellipsometry of a nanodiamond composite. <i>Semiconductors</i> , 2006, 40, 829-833.	0.2	3
105	Valence band structure engineering of thin SiGe/Si quantum wells for piezoresistive applications. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 760-764.	0.7	3
106	Localized thinning for strain concentration in suspended germanium membranes and optical method for precise thickness measurement. <i>AIP Advances</i> , 2018, 8, 115131.	0.6	3
107	Optical Properties of Semiconductors. <i>Springer Series in Optical Sciences</i> , 2018, , 89-113.	0.5	3
108	Optical characterization of AlAs/GaNAs multiple quantum wells. <i>Superlattices and Microstructures</i> , 1992, 12, 207-210.	1.4	2

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109	Quantum well lasers with InAs monolayers in the active region grown at low temperature by atomic layer molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 1993, 127, 46-49.	0.7	2
110	Patterned optical anisotropy in woven conjugated polymer systems. <i>Applied Physics Letters</i> , 2012, 101, 171907.	1.5	2
111	Efficient infrared sunlight absorbers based on gold-covered, inverted silicon pyramid arrays. <i>Materials Advances</i> , 2022, 3, 2364-2372.	2.6	2
112	Spectral ellipsometry of semiconductors and semiconductor structures. , 1990, 1286, 111.		1
113	X-ray characterization of InAs laser structures grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 1992, 72, 2528-2530.	1.1	1
114	Structural and optical characterization of alternately strained GaAs/GaP/GaAs/InP superlattices grown by atomic layer molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 1993, 127, 623-626.	0.7	1
115	Ellipsometric characterisation of ordered Ga ^{0.5} In ^{0.5} P. <i>Materials Science and Technology</i> , 1998, 14, 1283-1285.	0.8	1
116	Development of Zirconia Plasma Sprayed Coatings for Dental Implants and for Knee Prostheses. <i>Key Engineering Materials</i> , 2001, 218-220, 515-520.	0.4	1
117	Polarized Raman study of self-assembled Ge/Si dots under hydrostatic pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 482-485.	0.7	1
118	Spectroscopic imaging ellipsometry of self-assembled SiGe/Si nanostructures. <i>Applied Surface Science</i> , 2017, 421, 547-552.	3.1	1
119	Spin orientation by optical pumping in In _x Ga _{1-x} As/AlAs multiple quantum wells. <i>Solid State Communications</i> , 1994, 91, 703-707.	0.9	0
120	Spectral ellipsometry of amorphous hydrogenated carbon grown by magnetron sputtering of graphite. <i>Semiconductors</i> , 2003, 37, 1211-1213.	0.2	0
121	SNOM Characterization of Self-Assembled Organic Nanocrystals. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	0
122	Caracterización estructural mediante elipsometría espectral de multicapas basadas en SiO ₂ . <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2000, 39, 729-734.	0.9	0
123	Characterisation of complex multilayer structures using spectroscopic ellipsometry. <i>European Physical Journal Special Topics</i> , 1999, 09, Pr8-1195-Pr8-1202.	0.2	0