

# Miquel Garriga

## List of Publications by Year in descending order

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123  
papers

4,982  
citations

109137

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95083

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123  
docs citations

123  
times ranked

4715  
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient infrared sunlight absorbers based on gold-covered, inverted silicon pyramid arrays. <i>Materials Advances</i> , 2022, 3, 2364-2372.	2.6	2
2	Quantifying thermal transport in buried semiconductor nanostructures via cross-sectional scanning thermal microscopy. <i>Nanoscale</i> , 2021, 13, 10829-10836.	2.8	12
3	Photoluminescence of Bound Exciton Complexes and Assignment to Shallow Defects in Methylammonium/Formamidinium Lead Iodide Mixed Crystals. <i>Advanced Optical Materials</i> , 2021, 9, 2001969.	3.6	11
4	Beating the Thermal Conductivity Alloy Limit Using Long-Period Compositionally Graded Si <sub>1-x</sub> Ge <sub>x</sub> Superlattices. <i>Journal of Physical Chemistry C</i> , 2020, 124, 19864-19872.	1.5	9
5	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
6	Spectroscopic ellipsometry study of FA <sub>1-x</sub> MA <sub>x</sub> PbI <sub>3</sub> hybrid perovskite single crystals. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019, 37, .	0.6	7
7	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
8	Ultrathin Semiconductor Superabsorbers from the Visible to the Near-Infrared. <i>Advanced Materials</i> , 2018, 30, 1705876.	11.1	29
9	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
10	Optical Properties of Semiconductors. <i>Springer Series in Optical Sciences</i> , 2018, , 89-113.	0.5	3
11	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
12	Thermal transport in epitaxial Si <sub>1-x</sub> Ge <sub>x</sub> alloy nanowires with varying composition and morphology. <i>Nanotechnology</i> , 2017, 28, 505704.	1.3	9
13	Spectroscopic imaging ellipsometry of self-assembled SiGe/Si nanostructures. <i>Applied Surface Science</i> , 2017, 421, 547-552.	3.1	1
14	Evaluation of the dielectric function of colloidal Cd <sub>1-x</sub> Hg <sub>x</sub> Te quantum dot films by spectroscopic ellipsometry. <i>Applied Surface Science</i> , 2017, 421, 295-300.	3.1	6
15	Photoinduced p-to n-type Switching in Thermoelectric Polymer-Carbon Nanotube Composites. <i>Advanced Materials</i> , 2016, 28, 2782-2789.	11.1	89
16	Growth and Characterization of Epitaxial In-plane SiGe Alloy Nanowires. <i>Materials Today: Proceedings</i> , 2015, 2, 548-556.	0.9	4
17	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
18	Tailoring thermal conductivity by engineering compositional gradients in Si <sub>1-x</sub> Ge <sub>x</sub> superlattices. <i>Nano Research</i> , 2015, 8, 2833-2841.	5.8	31

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19	The dielectric tensor of monoclinic $\hat{\epsilon}$ -3,4,9,10-perylene tetracarboxylic dianhydride in the visible spectral range. <i>Thin Solid Films</i> , 2014, 571, 420-425.	0.8	5
20	On the complex refractive index of polymer:fullerene photovoltaic blends. <i>Thin Solid Films</i> , 2014, 571, 371-376.	0.8	23
21	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
22	Using high pressure to unravel the mechanism of visible emission in amorphous Si/SiO <sub>2</sub> nanoparticles. <i>Physical Review B</i> , 2014, 89, .	1.1	14
23	Dependence on pressure of the refractive indices of wurtzite ZnO, GaN, and AlN. <i>Physical Review B</i> , 2014, 90, .	1.1	13
24	Poly(3-hexylthiophene) nanowires in porous alumina: internal structure under confinement. <i>Soft Matter</i> , 2014, 10, 3335.	1.2	38
25	Optical properties of ceria/zirconia epitaxial films grown from chemical solutions. <i>Materials Chemistry and Physics</i> , 2013, 138, 462-467.	2.0	18
26	Raman spectroscopy as a probe of molecular order, orientation, and stacking of fluorinated copper phthalocyanine (F <sub>16</sub> CuPc) thin films. <i>Journal of Raman Spectroscopy</i> , 2013, 44, 597-607.	1.2	11
27	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
28	Probing local strain and composition in Ge nanowires by means of tip-enhanced Raman scattering. <i>Nanotechnology</i> , 2013, 24, 185704.	1.3	21
29	Determination of Thermal Transition Depth Profiles in Polymer Semiconductor Films with Ellipsometry. <i>Macromolecules</i> , 2013, 46, 7325-7331.	2.2	26
30	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
31	Patterned optical anisotropy in woven conjugated polymer systems. <i>Applied Physics Letters</i> , 2012, 101, 171907.	1.5	2
32	Influence of alloy inhomogeneities on the determination by Raman scattering of composition and strain in Si <sub>1-x</sub> Ge <sub>x</sub> /Si(001) layers. <i>Journal of Applied Physics</i> , 2012, 112, 023512.	1.1	18
33	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
34	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
35	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
36	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

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37	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
38	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
39	Enhanced Fano Resonance in Asymmetrical Au:Ag Heterodimers. <i>Journal of Physical Chemistry C</i> , 2011, 115, 6410-6414.	1.5	83
40	Real-time studies during coating and post-deposition annealing in organic semiconductors. <i>Thin Solid Films</i> , 2011, 519, 2678-2681.	0.8	15
41	Evidence of quantum confinement effects on interband optical transitions in Si nanocrystals. <i>Physical Review B</i> , 2010, 82, .	1.1	56
42	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
43	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
44	Ellipsometric study of crystallization of amorphous Ge thin films embedded in SiO <sub>2</sub> . <i>Thin Solid Films</i> , 2008, 516, 4277-4281.	0.8	10
45	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
46	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
47	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
48	Composition dependence of the phonon strain shift coefficients of SiGe alloys revisited. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	51
49	Exciton-phonon coupling in diindenoperylene thin films. <i>Physical Review B</i> , 2008, 78, .	1.1	91
50	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
51	Raman scattering interferences as a probe of vertical coherence in multilayers of carbon-induced Ge quantum dots. <i>Physical Review B</i> , 2007, 76, .	1.1	8
52	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
53	SNOM Characterization of Self-Assembled Organic Nanocrystals. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	0
54	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

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55	Growth dynamics of C-induced Ge dots on Si <sub>1-x</sub> Ge <sub>x</sub> strained layers. <i>Surface Science</i> , 2007, 601, 2783-2786.	0.8	5
56	Spectral ellipsometry of a nanodiamond composite. <i>Semiconductors</i> , 2006, 40, 829-833.	0.2	3
57	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
58	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
59	Self-organization of phthalocyanines on Al <sub>2</sub> O <sub>3</sub> (1120) in aligned and ordered films. <i>Journal of Materials Research</i> , 2004, 19, 2061-2067.	1.2	18
60	Optical properties of anisotropic materials: an experimental approach. <i>Thin Solid Films</i> , 2004, 455-456, 124-131.	0.8	19
61	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
62	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
63	Spectral ellipsometry of amorphous hydrogenated carbon grown by magnetron sputtering of graphite. <i>Semiconductors</i> , 2003, 37, 1211-1213.	0.2	0
64	Chalcogenide glass-based rib ARROW waveguide. <i>Journal of Non-Crystalline Solids</i> , 2003, 326-327, 455-459.	1.5	23
65	Strong optical anisotropies of F16CuPc thin films studied by spectroscopic ellipsometry. <i>Journal of Chemical Physics</i> , 2003, 119, 6335-6340.	1.2	37
66	Controlled Molecular Alignment in Phthalocyanine Thin Films on Stepped Sapphire Surfaces. <i>Advanced Functional Materials</i> , 2002, 12, 455-460.	7.8	62
67	Optical functions of chalcopyrite CuGa <sub>x</sub> In <sub>1-x</sub> Se <sub>2</sub> alloys. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, 659-664.	1.1	160
68	Effect of strain and ordering on the band-gap energy of InGaP. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 88, 139-142.	1.7	7
69	Anisotropic optical properties of single crystalline PTCDA studied by spectroscopic ellipsometry. <i>Organic Electronics</i> , 2002, 3, 23-31.	1.4	63
70	Optical transitions near the band edge in bulk CuIn <sub>x</sub> Ga <sub>1-x</sub> Se <sub>2</sub> from ellipsometric measurements. <i>Materials Chemistry and Physics</i> , 2001, 70, 300-304.	2.0	35
71	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
72	Influence of tensile and compressive strain on the band gap energy of ordered InGaP. <i>Applied Physics Letters</i> , 2001, 79, 2758-2760.	1.5	10

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73	Optical studies of gap, hopping energies, and the Anderson-Hubbard parameter in the zigzag-chain compound SrCuO <sub>2</sub> . Physical Review B, 2001, 63, .	1.1	20
74	Optical properties of CuAlSe <sub>2</sub> . Journal of Applied Physics, 2000, 88, 1923-1928.	1.1	29
75	Optical properties of chalcopyrite CuAl <sub>x</sub> In <sub>1-x</sub> Se <sub>2</sub> alloys. Journal of Applied Physics, 2000, 88, 5796-5801.	1.1	45
76	Caracterización estructural mediante elipsometría espectral de multicapas basadas en SiO <sub>2</sub> . Boletín De La Sociedad Española De Cerámica Y Vidrio, 2000, 39, 729-734.	0.9	0
77	Growth of Si nuclei on SiO <sub>2</sub> for quantum dot memory applications. Microelectronic Engineering, 1999, 48, 431-434.	1.1	9
78	Ellipsometry on Very Thick Multilayer Structures. Physica Status Solidi (B): Basic Research, 1999, 215, 247-251.	0.7	9
79	Growth of Nanoscale Si Nuclei on SiO <sub>2</sub> by Rapid Thermal Chemical Vapor Deposition. Journal of the Electrochemical Society, 1999, 146, 4219-4225.	1.3	4
80	Characterisation of complex multilayer structures using spectroscopic ellipsometry. European Physical Journal Special Topics, 1999, 09, Pr8-1195-Pr8-1202.	0.2	0
81	Doping dependence of the ellipsometric spectra of Nd <sub>2-x</sub> Ce <sub>x</sub> CuO <sub>4</sub> single crystals. Physica C: Superconductivity and Its Applications, 1998, 299, 41-51.	0.6	5
82	Ellipsometric characterisation of ordered Ga <sub>0.5</sub> In <sub>0.5</sub> P. Materials Science and Technology, 1998, 14, 1283-1285.	0.8	1
83	Ellipsometric measurement of the dielectric tensor of Nd <sub>2-x</sub> Ce <sub>x</sub> CuO <sub>4</sub> . Physical Review B, 1997, 55, 3216-3221.	1.1	9
84	Optical determination of growth variants in ordered GaInP. Solid State Communications, 1997, 101, 757-760.	0.9	8
85	Determination of the dielectric tensor in anisotropic materials. Applied Physics Letters, 1995, 67, 596-598.	1.5	16
86	Spin orientation by optical pumping in In <sub>x</sub> Ga <sub>1-x</sub> As/AlAs multiple quantum wells. Solid State Communications, 1994, 91, 703-707.	0.9	0
87	Temperature dependence of the dielectric function and interband critical points of AlAs obtained on an MBE grown layer. Thin Solid Films, 1993, 233, 122-125.	0.8	16
88	Temperature dependence of the dielectric function and the interband critical-point parameters of GaP. Thin Solid Films, 1993, 233, 185-188.	0.8	14
89	Quantum well lasers with InAs monolayers in the active region grown at low temperature by atomic layer molecular beam epitaxy. Journal of Crystal Growth, 1993, 127, 46-49.	0.7	2
90	Growth and characterization of AlAs/GaInAs multiple quantum wells. Journal of Crystal Growth, 1993, 127, 611-615.	0.7	3

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91	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
92	Temperature dependence of the refractive index of crystalline germanium-silicon alloys. <i>Applied Physics A: Materials Science and Processing</i> , 1993, 56, 259-261.	1.1	9
93	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
94	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
95	Quantum well laser with single InAs monolayer in active region. <i>Electronics Letters</i> , 1992, 28, 935-937.	0.5	10
96	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
97	Optical characterization of AlAs/GaInAs multiple quantum wells. <i>Superlattices and Microstructures</i> , 1992, 12, 207-210.	1.4	2
98	Interband transitions in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . <i>Physica C: Superconductivity and Its Applications</i> , 1992, 192, 473-480.	0.6	16
99	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
100	Optical anisotropy in the Pb <sub>2</sub> Sr <sub>2</sub> (Y, Ca)Cu <sub>3</sub> O <sub>8</sub> + $\delta$ superconductor. <i>Physica C: Superconductivity and Its Applications</i> , 1991, 174, 377-382.	0.6	8
101	Temperature dependence of the dielectric function and the interband critical-point parameters of Al <sub>x</sub> Ga <sub>1-x</sub> As. <i>Physical Review B</i> , 1991, 43, 11950-11965.	1.1	66
102	Resonant Raman scattering in the Pb <sub>2</sub> Sr <sub>2</sub> (Y,Ca)Cu <sub>3</sub> O <sub>8</sub> + $\delta$ superconductor. <i>Physical Review B</i> , 1990, 41, 830-833.	1.1	16
103	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
104	Spectral ellipsometry of semiconductors and semiconductor structures. , 1990, 1286, 111.		1
105	E <sub>2</sub> interband transitions in Al <sub>x</sub> Ga <sub>1-x</sub> As alloys. <i>Physical Review B</i> , 1990, 41, 2959-2965.	1.1	36
106	Optical response of Bi <sub>2</sub> Sr <sub>2</sub> CaCu <sub>2</sub> O <sub>8</sub> superconductors. <i>Solid State Communications</i> , 1990, 73, 127-130.	0.9	19
107	Anisotropy of the dielectric function in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6</sub> . <i>Physical Review B</i> , 1989, 40, 7368-7371.	1.1	57
108	Resonant Raman scattering in short-period (Si) <sub>n</sub> /(Ge) <sub>m</sub> superlattices. <i>Physical Review B</i> , 1989, 40, 1361-1364.	1.1	38

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109	Ellipsometric and reflectance studies of GaAs/AlAs superlattices. Applied Physics A: Solids and Surfaces, 1989, 49, 407-412.	1.4	18
110	Ellipsometric measurements of high-Tc compounds. Journal of the Optical Society of America B: Optical Physics, 1989, 6, 470.	0.9	41
111	Optical spectra of SixGe1-x alloys. Journal of Applied Physics, 1989, 65, 2827-2832.	1.1	245
112	Effects of oxygen deficiency on the optical spectra of YBa2Cu3O7-x. Solid State Communications, 1988, 66, 1231-1235.	0.9	54
113	Optical response of MBa2Cu3O7-x-type materials. Physica C: Superconductivity and Its Applications, 1988, 153-155, 643-644.	0.6	33
114	Temperature dependence of optical excitations in MBa2Cu3O6 (M = Y,Sm). Solid State Communications, 1988, 67, 589-592.	0.9	49
115	Ellipsometric spectra of YBa2Cu3O7 in the 1.7 - 5.3 eV range. Solid State Communications, 1988, 66, 1071-1075.	0.9	26
116	Interband Transitions in Ultrathin GaAs-AlAs Superlattices. Physical Review Letters, 1988, 61, 1643-1646.	2.9	42
117	Temperature dependence of the interband critical-point parameters of InP. Physical Review B, 1987, 36, 4813-4820.	1.1	213
118	Interband critical points of GaAs and their temperature dependence. Physical Review B, 1987, 35, 9174-9189.	1.1	786
119	Interband transitions of thin-layer GaAs/AlAs superlattices. Physical Review B, 1987, 36, 3254-3258.	1.1	86
120	Optical properties of AlAs. Solid State Communications, 1987, 61, 157-160.	0.9	59
121	Temperature dependence of the dielectric function and interband critical points in silicon. Physical Review B, 1987, 36, 4821-4830.	1.1	717
122	POSITION AND CHARACTER (E% OR X) OF ENERGY STATES IN SHORT-PERIOD (GaAs)m(AlAs)n SUPERLATTICES. Journal De Physique Colloque, 1987, 48, C5-495-C5-498.	0.2	25
123	Temperature dependence of the dielectric function and the interband critical points of CdSe. Physical Review B, 1986, 34, 2458-2469.	1.1	176