

MarÃ-a de la Mata

List of Publications by Year in descending order

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citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrathin High Surface Area Nickel Boride (Ni _x B) Nanosheets as Highly Efficient Electrocatalyst for Oxygen Evolution. <i>Advanced Energy Materials</i> , 2017, 7, 1700381.	10.2	348
2	Polarity Assignment in ZnTe, GaAs, ZnO, and GaN-AlN Nanowires from Direct Dumbbell Analysis. <i>Nano Letters</i> , 2012, 12, 2579-2586.	4.5	161
3	Whispering Gallery Mode Lasing from Hexagonal Shaped Layered Lead Iodide Crystals. <i>ACS Nano</i> , 2015, 9, 687-695.	7.3	118
4	Exciton-phonon coupling in individual ZnTe nanorods studied by resonant Raman spectroscopy. <i>Physical Review B</i> , 2012, 85, .	1.1	109
5	Atomic Scale Strain Relaxation in Axial Semiconductor III-V Nanowire Heterostructures. <i>Nano Letters</i> , 2014, 14, 6614-6620.	4.5	94
6	Enhanced thermoelectric performance of solution-derived bismuth telluride based nanocomposites via liquid-phase Sintering. <i>Nano Energy</i> , 2016, 30, 630-638.	8.2	78
7	Twin-Induced InSb Nanosails: A Convenient High Mobility Quantum System. <i>Nano Letters</i> , 2016, 16, 825-833.	4.5	74
8	Solution-based synthesis and processing of Sn- and Bi-doped Cu ₃ SbSe ₄ nanocrystals, nanomaterials and ring-shaped thermoelectric generators. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2592-2602.	5.2	73
9	Mn ₃ O ₄ @CoMn ₂ O ₄ Co _x O _y Nanoparticles: Partial Cation Exchange Synthesis and Electrocatalytic Properties toward the Oxygen Reduction and Evolution Reactions. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 17435-17444.	4.0	72
10	Position-Controlled Growth of GaN Nanowires and Nanotubes on Diamond by Molecular Beam Epitaxy. <i>Nano Letters</i> , 2015, 15, 1773-1779.	4.5	69
11	A review of MBE grown 0D, 1D and 2D quantum structures in a nanowire. <i>Journal of Materials Chemistry C</i> , 2013, 1, 4300.	2.7	66
12	Twinning, Polytypism, and Polarity-Induced Morphological Modulation in Nonplanar Nanostructures with van der Waals Epitaxy. <i>Advanced Functional Materials</i> , 2013, 23, 1636-1646.	7.8	59
13	UV Photosensing Characteristics of Nanowire-Based GaN/AlN Superlattices. <i>Nano Letters</i> , 2016, 16, 3260-3267.	4.5	53
14	Towards defect-free 1-D GaAs/AlGaAs heterostructures based on GaAs nanomembranes. <i>Nanoscale</i> , 2015, 7, 19453-19460.	2.8	46
15	Highly Enhanced Exciton Recombination Rate by Strong Electron-Phonon Coupling in Single ZnTe Nanobelt. <i>Nano Letters</i> , 2012, 12, 6420-6427.	4.5	43
16	Germanium doping of self-assembled GaN nanowires grown by plasma-assisted molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	41
17	Heterometallic Titanium-Organic Frameworks by Metal-Induced Dynamic Topological Transformations. <i>Journal of the American Chemical Society</i> , 2020, 142, 6638-6648.	6.6	40
18	Phonon Engineering in Isotopically Disordered Silicon Nanowires. <i>Nano Letters</i> , 2015, 15, 3885-3893.	4.5	36

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19	High Yield of GaAs Nanowire Arrays on Si Mediated by the Pinning and Contact Angle of Ga. Nano Letters, 2015, 15, 2869-2874.	4.5	34
20	Fe ₃ O ₄ @NiFe ₂ O ₄ Nanoparticles with Enhanced Electrocatalytic Properties for Oxygen Evolution in Carbonate Electrolyte. ACS Applied Materials & Interfaces, 2016, 8, 29461-29469.	4.0	34
21	Intraband Absorption in Self-Assembled Ge-Doped GaN/AlN Nanowire Heterostructures. Nano Letters, 2014, 14, 1665-1673.	4.5	33
22	Disentangling Epitaxial Growth Mechanisms of Solution Derived Functional Oxide Thin Films. Advanced Materials Interfaces, 2016, 3, 1600392.	1.9	33
23	Orientationally Ordered Silicon Nanocrystal Cuboctahedra in Superlattices. Nano Letters, 2016, 16, 7814-7821.	4.5	33
24	The Role of Polarity in Nonplanar Semiconductor Nanostructures. Nano Letters, 2019, 19, 3396-3408.	4.5	31
25	Bandgap engineering in a nanowire: self-assembled 0, 1 and 2D quantum structures. Materials Today, 2013, 16, 213-219.	8.3	30
26	Development of carbon fiber acrylonitrile styrene acrylate composite for large format additive manufacturing. Materials and Design, 2020, 191, 108577.	3.3	30
27	Ultrafast Epitaxial Growth Kinetics in Functional Oxide Thin Films Grown by Pulsed Laser Annealing of Chemical Solutions. Chemistry of Materials, 2016, 28, 6136-6145.	3.2	28
28	Solution phase van der Waals epitaxy of ZnO wire arrays. Nanoscale, 2013, 5, 7242.	2.8	27
29	Insights into Preformed Human Serum Albumin Corona on Iron Oxide Nanoparticles: Structure, Effect of Particle Size, Impact on MRI Efficiency, and Metabolization. ACS Applied Bio Materials, 2019, 2, 3084-3094.	2.3	27
30	Tuning Transport Properties in Thermoelectric Nanocomposites through Inorganic Ligands and Heterostructured Building Blocks. ACS Nano, 2019, 13, 6572-6580.	7.3	27
31	Passivation layers for nanostructured photoanodes: ultra-thin oxides on InGaN nanowires. Journal of Materials Chemistry A, 2018, 6, 565-573.	5.2	26
32	Surface Hydrogen Enables Subeutectic Vapor-Liquid-Solid Semiconductor Nanowire Growth. Nano Letters, 2016, 16, 6717-6723.	4.5	25
33	Screening of the quantum-confined Stark effect in AlN/GaN nanowire superlattices by germanium doping. Applied Physics Letters, 2014, 104, .	1.5	23
34	Probing the Internal Electric Field in GaN/AlGaIn Nanowire Heterostructures. Nano Letters, 2014, 14, 5118-5122.	4.5	23
35	Ultraviolet pulsed laser crystallization of Ba _{0.8} Sr _{0.2} TiO ₃ films on LaNiO ₃ -coated silicon substrates. Ceramics International, 2016, 42, 4039-4047.	2.3	23
36	Te-seeded growth of few-quintuple layer Bi ₂ Te ₃ nanoplates. Nano Research, 2014, 7, 1243-1253.	5.8	22

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37	Growth of ferroelectric Ba _{0.8} Sr _{0.2} TiO ₃ epitaxial films by ultraviolet pulsed laser irradiation of chemical solution derived precursor layers. Applied Physics Letters, 2015, 106, 262903.	1.5	22
38	Purcell Enhancement and Wavelength Shift of Emitted Light by CsPb ₃ Perovskite Nanocrystals Coupled to Hyperbolic Metamaterials. ACS Photonics, 2020, 7, 3152-3160.	3.2	22
39	The Growth of Ultralong ZnTe Micro/Nanostructures: The Influence of Polarity and Twin Direction on the Morphogenesis of Nanobelts and Nanosheets. Crystal Growth and Design, 2013, 13, 2590-2596.	1.4	18
40	Low-Temperature Growth of Axial Si/Ge Nanowire Heterostructures Enabled by Trisilane. Chemistry of Materials, 2017, 29, 3397-3402.	3.2	18
41	Long-lived excitons in GaN/AlN nanowire heterostructures. Physical Review B, 2015, 91, .	1.1	17
42	Unveiling the Nucleation and Coarsening Mechanisms of Solution-Derived Self-Assembled Epitaxial Ce _{0.9} Gd _{0.1} O ₂ Nanostructures. Crystal Growth and Design, 2017, 17, 504-516.	1.4	17
43	Growth and Luminescence of Polytypic InP on Epitaxial Graphene. Advanced Functional Materials, 2018, 28, 1705592.	7.8	17
44	Solution-Processed Ni-Based Nanocomposite Electrocatalysts: An Approach to Highly Efficient Electrochemical Water Splitting. ACS Applied Energy Materials, 2021, 4, 5255-5264.	2.5	16
45	Ultrafast Crystallization of Ce _{0.9} Zr _{0.1} O ₂ Epitaxial Films on Flexible Technical Substrates by Pulsed Laser Irradiation of Chemical Solution Derived Precursor Layers. Crystal Growth and Design, 2015, 15, 1957-1967.	1.4	15
46	Quality improvement of AlIn/p-Si heterojunctions with AlN buffer layer deposited by RF-sputtering. Journal of Alloys and Compounds, 2018, 769, 824-830.	2.8	15
47	Induced shape controllability by tailored precursor design in thermal and microwave-assisted synthesis of Fe_3O_4 nanoparticles. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	14
48	Strain-induced spatially indirect exciton recombination in zinc-blende/wurtzite CdS heterostructures. Nano Research, 2015, 8, 3035-3044.	5.8	14
49	Colloidal Silicon-Germanium Nanorod Heterostructures. Chemistry of Materials, 2017, 29, 9786-9792.	3.2	14
50	Growth of Au-Pd ₂ Sn Nanorods via Galvanic Replacement and Their Catalytic Performance on Hydrogenation and Sonogashira Coupling Reactions. Langmuir, 2018, 34, 10634-10643.	1.6	13
51	Synthesis of Silver Nanocomposites for Stereolithography: In Situ Formation of Nanoparticles. Polymers, 2022, 14, 1168.	2.0	12
52	Au-NiO _x nanocomposite for hot electron-assisted plasmonic photocatalysis. Journal of Materials Chemistry C, 2020, 8, 9885-9897.	2.7	11
53	Interfacial effects on the tunneling magnetoresistance in $\text{L}_a\text{S}_c\text{Mn}_{0.7}\text{Mn}$	1.1	9
54	Reduction of Thermal Conductivity in Nanowires by Combined Engineering of Crystal Phase and Isotope Disorder. Nano Letters, 2018, 18, 3066-3075.	4.5	9

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55	Orientation symmetry breaking in self-assembled Ce _{1-x} Gd _x O _{2-y} nanowires derived from chemical solutions. RSC Advances, 2016, 6, 97226-97236.	1.7	8
56	High Spatial Resolution Mapping of Localized Surface Plasmon Resonances in Single Gallium Nanoparticles. Small, 2019, 15, 1902920.	5.2	8
57	STEM Tools for Semiconductor Characterization: Beyond High-Resolution Imaging. Nanomaterials, 2022, 12, 337.	1.9	8
58	Role of Silicon Nanowire Diameter for Alkyl (Chain Lengths C ₁ –C ₁₈) Passivation Efficiency through Si–C Bonds. Langmuir, 2015, 31, 2430-2437.	1.6	7
59	Optical properties of metamorphic type-I InAs _{1-x} Sb _x /Al _y In _{1-y} As quantum wells grown on GaAs for the mid-infrared spectral range. Journal Physics D: Applied Physics, 2019, 52, 465102.	1.3	7
60	Growth of self-assembled and position-controlled InN nanowires on Si (1 1 1) by molecular beam epitaxy. Journal of Crystal Growth, 2019, 510, 56-64.	0.7	7
61	Influence of the AlN interlayer thickness on the photovoltaic properties of in-rich AlInN on Si heterojunctions deposited by RF sputtering. AIP Advances, 2018, 8, .	0.6	6
62	Hybrid hierarchically structured materials combining breath figures and thermal decomposition of KAuCl ₄ . Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 624, 126766.	2.3	6
63	Bottom-up engineering of InAs at the nanoscale: From V-shaped nanomembranes to nanowires. Journal of Crystal Growth, 2015, 420, 47-56.	0.7	5
64	Understanding GaAs Nanowire Growth in the Ag–Au Seed Materials System. Crystal Growth and Design, 2018, 18, 6702-6712.	1.4	5
65	Self-Assembly of CsPbBr ₃ Perovskites in Micropatterned Polymeric Surfaces: Toward Luminescent Materials with Self-Cleaning Properties. ACS Applied Materials & Interfaces, 2022, 14, 20023-20031.	4.0	5
66	Probing inhomogeneous composition in core/shell nanowires by Raman spectroscopy. Journal of Applied Physics, 2014, 116, 184303.	1.1	4
67	Optical Analysis of Oxygen Self-Diffusion in Ultrathin CeO ₂ Layers at Low Temperatures. Advanced Energy Materials, 2018, 8, 1802120.	10.2	4
68	Induced damage during STEM-EELS analyses on acrylic-based materials for Stereolithography. Polymer Degradation and Stability, 2022, 203, 110044.	2.7	4
69	Modification of the Mechanical Properties of Core–Shell Liquid Gallium Nanoparticles by Thermal Oxidation at Low Temperature. Particle and Particle Systems Characterization, 2021, 38, 2100141.	1.2	3
70	Additive Manufacturing of Gold Nanostructures Using Nonlinear Photoreduction under Controlled Ionic Diffusion. International Journal of Molecular Sciences, 2021, 22, 7465.	1.8	2
71	Effect of the cap layer growth temperature on the Sb distribution in InAs/InSb/InAs sub-monolayer heterostructures for mid-infrared devices. Nanotechnology, 2020, 31, 105702.	1.3	1
72	High Resolution in STEM Mode: Individual Atom Analysis in Semiconductor Nanowires. , 2014, , 375-425.		1

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73	Quantum heterostructures based on GaAs nanomembranes for photonic applications. , 2016, , .		0
74	Structural Characterization of Al _{0.37} In _{0.63} N/AlN/p-Si (111) Heterojunctions Grown by RF Sputtering for Solar Cell Applications. Materials, 2021, 14, 2236.	1.3	0
75	Disentangling phonon channels in nanoscale heat transport. Physical Review B, 2021, 104, .	1.1	0