Vincent Consonni

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/7262916/publications.pdf Version: 2024-02-01

		117625	175258
102	3,146	34	52
papers	citations	h-index	g-index
111		111	2264
111	111	111	3264
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	High carrier mobility in single-crystal PtSe ₂ grown by molecular beam epitaxy on ZnO(0001). 2D Materials, 2022, 9, 015015.	4.4	10
2	Tuneable polarity and enhanced piezoelectric response of ZnO thin films grown by metal–organic chemical vapour deposition through the flow rate adjustment. Materials Advances, 2022, 3, 498-513.	5.4	5
3	<i>In situ</i> analysis of the nucleation of O- and Zn-polar ZnO nanowires using synchrotron-based X-ray diffraction. Nanoscale, 2022, 14, 680-690.	5.6	1
4	Optimization of the Sb2S3 Shell Thickness in ZnO Nanowire-Based Extremely Thin Absorber Solar Cells. Nanomaterials, 2022, 12, 198.	4.1	4
5	Enhanced photocatalytic activity of chemically deposited ZnO nanowires using doping and annealing strategies for water remediation. Applied Surface Science, 2022, 582, 152323.	6.1	15
6	Modulating the growth of chemically deposited ZnO nanowires and the formation of nitrogen- and hydrogen-related defects using pH adjustment. Nanoscale Advances, 2022, 4, 1793-1807.	4.6	11
7	Implementing the Reactor Geometry in the Modeling of Chemical Bath Deposition of ZnO Nanowires. Nanomaterials, 2022, 12, 1069.	4.1	7
8	Optimization Strategies Used for Boosting Piezoelectric Response of Biosensor Based on Flexible Micro-ZnO Composites. Biosensors, 2022, 12, 245.	4.7	6
9	Chemical Bath Deposition of ZnO Nanowires Using Copper Nitrate as an Additive for Compensating Doping. Inorganic Chemistry, 2021, 60, 1612-1623.	4.0	19
10	Dimensional Roadmap for Maximizing the Piezoelectrical Response of ZnO Nanowire-Based Transducers: Impact of Growth Method. Nanomaterials, 2021, 11, 941.	4.1	18
11	Polarity in ZnO nanowires: A critical issue for piezotronic and piezoelectric devices. Nano Energy, 2021, 83, 105789.	16.0	68
12	Engineering nitrogen- and hydrogen-related defects in ZnO nanowires using thermal annealing. Physical Review Materials, 2021, 5, .	2.4	10
13	Potential substitutes for critical materials in white LEDs: Technological challenges and market opportunities. Renewable and Sustainable Energy Reviews, 2021, 143, 110869.	16.4	38
14	Characterizing and Optimizing Piezoelectric Response of ZnO Nanowire/PMMA Composite-Based Sensor. Nanomaterials, 2021, 11, 1712.	4.1	13
15	Effects of thermal annealing on the structural and electrical properties of ZnO thin films for boosting their piezoelectric response. Journal of Alloys and Compounds, 2021, 870, 159512.	5.5	21
16	Evidence of Piezoelectric Potential and Screening Effect in Single Highly Doped ZnO:Ga and ZnO:Al Nanowires by Advanced Scanning Probe Microscopy. Journal of Physical Chemistry C, 2021, 125, 15373-15383.	3.1	15
17	Study of structural and electrical properties of ferroelectric HZO films obtained by single-target sputtering. AIP Advances, 2021, 11, .	1.3	6
18	Template-Assisted Growth of Open-Ended TiO ₂ Nanotubes with Hexagonal Shape Using Atomic Layer Deposition. Crystal Growth and Design, 2021, 21, 125-132.	3.0	1

#	Article	IF	CITATIONS
19	Chemical Synthesis of β-Ga ₂ O ₃ Microrods on Silicon and Its Dependence on the Gallium Nitrate Concentration. Inorganic Chemistry, 2020, 59, 15696-15706.	4.0	14
20	Rare-earth-free zinc aluminium borate white phosphors for LED lighting. Journal of Materials Chemistry C, 2020, 8, 11839-11849.	5.5	13
21	Morphology Transition of ZnO from Thin Film to Nanowires on Silicon and its Correlated Enhanced Zinc Polarity Uniformity and Piezoelectric Responses. ACS Applied Materials & Interfaces, 2020, 12, 29583-29593.	8.0	11
22	Zinc Vacancy–Hydrogen Complexes as Major Defects in ZnO Nanowires Grown by Chemical Bath Deposition. Journal of Physical Chemistry C, 2020, 124, 16652-16662.	3.1	33
23	Schottky Contacts on Polarity-Controlled Vertical ZnO Nanorods. ACS Applied Materials & Interfaces, 2020, 12, 13217-13228.	8.0	14
24	Epitaxial TiO2 Shell Grown by Atomic Layer Deposition on ZnO Nanowires Using a Double-Step Process and Its Beneficial Passivation Effect. Journal of Physical Chemistry C, 2020, 124, 13447-13455.	3.1	6
25	The Path of Gallium from Chemical Bath into ZnO Nanowires: Mechanisms of Formation and Incorporation. Inorganic Chemistry, 2019, 58, 10269-10279.	4.0	15
26	ZnO Nanowires as a Promotor of High Photoinduced Efficiency and Voltage Gain for Cathode Battery Recharging. ACS Applied Energy Materials, 2019, 2, 6254-6262.	5.1	7
27	Modeling the Elongation of Nanowires Grown by Chemical Bath Deposition Using a Predictive Approach. Journal of Physical Chemistry C, 2019, 123, 29476-29483.	3.1	18
28	ZnO nanowires for solar cells: a comprehensive review. Nanotechnology, 2019, 30, 362001.	2.6	96
29	Formation mechanisms of ZnO nanowires on polycrystalline Au seed layers for piezoelectric applications. Nanotechnology, 2019, 30, 345601.	2.6	10
30	Effects of Polyethylenimine and Its Molecular Weight on the Chemical Bath Deposition of ZnO Nanowires. ACS Omega, 2018, 3, 12457-12464.	3.5	19
31	Well-ordered ZnO nanowires with controllable inclination on semipolar ZnO surfaces by chemical bath deposition. Nanotechnology, 2018, 29, 475601.	2.6	32
32	Polarity-Dependent High Electrical Conductivity of ZnO Nanorods and Its Relation to Hydrogen. Journal of Physical Chemistry C, 2018, 122, 22767-22775.	3.1	34
33	ZnO/CuCrO ₂ Core–Shell Nanowire Heterostructures for Selfâ€Powered UV Photodetectors with Fast Response. Advanced Functional Materials, 2018, 28, 1803142.	14.9	75
34	Synthesis and properties of ZnO/TiO ₂ /Sb ₂ S ₃ core–shell nanowire heterostructures using the SILAR technique. CrystEngComm, 2018, 20, 4455-4462.	2.6	10
35	Tunable Morphology and Doping of ZnO Nanowires by Chemical Bath Deposition Using Aluminum Nitrate. Journal of Physical Chemistry C, 2017, 121, 3573-3583.	3.1	26
36	Quantitative and simultaneous analysis of the polarity of polycrystalline ZnO seed layers and related nanowires grown by wet chemical deposition. Nanotechnology, 2017, 28, 095704.	2.6	11

#	Article	IF	CITATIONS
37	In situ analysis of the crystallization process of Sb 2 S 3 thin films by Raman scattering and X-ray diffraction. Materials and Design, 2017, 121, 1-10.	7.0	72
38	Phase discrimination in CdSe structures by means of Raman scattering. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700006.	2.4	9
39	ZnO/TiO ₂ /Sb ₂ S ₃ Core–Shell Nanowire Heterostructure for Extremely Thin Absorber Solar Cells. Journal of Physical Chemistry C, 2017, 121, 9672-9680.	3.1	66
40	Tuning the properties of F:SnO ₂ (FTO) nanocomposites with S:TiO ₂ nanoparticles – promising hazy transparent electrodes for photovoltaics applications. Journal of Materials Chemistry C, 2017, 5, 91-102.	5.5	15
41	Polarity-Dependent Growth Rates of Selective Area Grown ZnO Nanorods by Chemical Bath Deposition. Langmuir, 2017, 33, 6269-6279.	3.5	32
42	Effects of the pH on the Formation and Doping Mechanisms of ZnO Nanowires Using Aluminum Nitrate and Ammonia. Inorganic Chemistry, 2017, 56, 13111-13122.	4.0	33
43	High quality epitaxial fluorine-doped SnO2 films by ultrasonic spray pyrolysis: Structural and physical property investigation. Materials and Design, 2017, 132, 518-525.	7.0	15
44	Room temperature optical response of zinc oxide nanowires synthesized by chemical bath deposition to toluene vapors. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1115-1119.	1.8	2
45	Characterization of carrier concentration in ZnO nanowires by scanning capacitance microscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 576-580.	0.8	9
46	Polarity in GaN and ZnO: Theory, measurement, growth, and devices. Applied Physics Reviews, 2016, 3, .	11.3	105
47	Identification of extended defect and interface related luminescence lines in polycrystalline ZnO thin films grown by sol–gel process. RSC Advances, 2016, 6, 44987-44992.	3.6	9
48	Materials for Photovoltaic Solar Cells. , 2016, , 27-91.		0
49	Effect of Strontium Incorporation on the p-Type Conductivity of Cu ₂ 0 Thin Films Deposited by Metal–Organic Chemical Vapor Deposition. Journal of Physical Chemistry C, 2016, 120, 17261-17267.	3.1	14
50	Identifying and mapping the polytypes and orientation relationships in ZnO/CdSe core–shell nanowire arrays. Nanotechnology, 2016, 27, 445712.	2.6	5
51	Effects of Hexamethylenetetramine on the Nucleation and Radial Growth of ZnO Nanowires by Chemical Bath Deposition. Journal of Physical Chemistry C, 2016, 120, 5242-5250.	3.1	120
52	Light absorption processes and optimization of ZnO/CdTe core–shell nanowire arrays for nanostructured solar cells. Nanotechnology, 2015, 26, 075401.	2.6	17
53	Physical Properties of Annealed ZnO Nanowire/CuSCN Heterojunctions for Self-Powered UV Photodetectors. ACS Applied Materials & Interfaces, 2015, 7, 5820-5829.	8.0	67
54	Spontaneous shape transition of thin films into ZnO nanowires with high structural and optical quality. Nanoscale, 2015, 7, 16994-17003.	5.6	9

#	Article	IF	CITATIONS
55	Controlling the Structural Properties of Single Step, Dip Coated ZnO Seed Layers for Growing Perfectly Aligned Nanowire Arrays. Journal of Physical Chemistry C, 2015, 119, 21694-21703.	3.1	42
56	Towards Self-Powered Systems: Using Nanostructures to Harvest Ambient Energy. Engineering Materials, 2014, , 223-240.	0.6	1
57	Light trapping in ZnO nanowire arrays covered with an absorbing shell for solar cells. Optics Express, 2014, 22, A1174.	3.4	40
58	Origin of the nonradiative decay of bound excitons in GaN nanowires. Physical Review B, 2014, 90, .	3.2	32
59	Correlation between the structural and optical properties of spontaneously formed GaN nanowires: a quantitative evaluation of the impact of nanowire coalescence. Nanotechnology, 2014, 25, 455702.	2.6	44
60	Selective Area Growth of Well-Ordered ZnO Nanowire Arrays with Controllable Polarity. ACS Nano, 2014, 8, 4761-4770.	14.6	78
61	Local band bending and grain-to-grain interaction induced strain nonuniformity in polycrystalline CdTe films. Physical Review B, 2014, 89, .	3.2	19
62	Toward an efficient extremely thin absorber solar cell based on ZnO nanowire arrays. , 2014, , .		0
63	High Performance ZnO-SnO ₂ :F Nanocomposite Transparent Electrodes for Energy Applications. ACS Applied Materials & Interfaces, 2014, 6, 14096-14107.	8.0	57
64	Improvement of the physical properties of ZnO/CdTe core-shell nanowire arrays by CdCl2 heat treatment for solar cells. Nanoscale Research Letters, 2014, 9, 222.	5.7	11
65	Comparison of optical properties of Si and ZnO/CdTe core/shell nanowire arrays. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 665-669.	3.5	19
66	Selfâ€induced growth of GaN nanowires by molecular beam epitaxy: A critical review of the formation mechanisms. Physica Status Solidi - Rapid Research Letters, 2013, 7, 699-712.	2.4	89
67	Fluorine-doped SnO 2 thin films deposited on polymer substrate for flexible transparent electrodes. Thin Solid Films, 2013, 545, 302-309.	1.8	15
68	Preferential orientation of fluorine-doped SnO2 thin films: The effects of growth temperature. Acta Materialia, 2013, 61, 22-31.	7.9	74
69	Formation Mechanisms of ZnO Nanowires: The Crucial Role of Crystal Orientation and Polarity. Journal of Physical Chemistry C, 2013, 117, 20738-20745.	3.1	60
70	Extended-Defect-Related Photoluminescence Line at 3.33 eV in Nanostructured ZnO Thin Films. Applied Physics Express, 2013, 6, 111101.	2.4	8
71	Electron scattering mechanisms in fluorine-doped SnO2 thin films. Journal of Applied Physics, 2013, 114, .	2.5	52
72	Fluorine doped tin oxide (FTO) thin film as transparent conductive oxide (TCO) for photovoltaic applications. AIP Conference Proceedings, 2013, , .	0.4	17

#	Article	IF	CITATIONS
73	MODELING OF NITRIDE NANOWIRES GROWTH: SCALING GROWTH OF GaN NANOWIRES. , 2013, , .		Ο
74	Thickness effects on the texture development of fluorine-doped SnO2 thin films: The role of surface and strain energy. Journal of Applied Physics, 2012, 111, .	2.5	63
75	Scaling growth kinetics of self-induced GaN nanowires. Applied Physics Letters, 2012, 100, .	3.3	60
76	Critical Nucleation Effects on the Structural Relationship Between ZnO Seed Layer and Nanowires. Journal of Physical Chemistry C, 2012, 116, 25106-25111.	3.1	89
77	Quantitative description for the growth rate of self-induced GaN nanowires. Physical Review B, 2012, 85, .	3.2	80
78	Scaling thermodynamic model for the self-induced nucleation of GaN nanowires. Physical Review B, 2012, 85, .	3.2	53
79	Publisher's Note: Scaling thermodynamic model for the self-induced nucleation of GaN nanowires [Phys. Rev. B 85 , 165317 (2012)]. Physical Review B, 2012, 85, .	3.2	1
80	Efficient Dye-Sensitized Solar Cells Made from ZnO Nanostructure Composites. Journal of Physical Chemistry C, 2012, 116, 18117-18123.	3.1	42
81	Nucleation and coalescence effects on the density of self-induced GaN nanowires grown by molecular beam epitaxy. Applied Physics Letters, 2011, 98, 071913.	3.3	41
82	Synthesis and physical properties of ZnO/CdTe core shell nanowires grown by low-cost deposition methods. Applied Physics Letters, 2011, 98, .	3.3	52
83	Nucleation mechanisms of self-induced GaN nanowires grown on an amorphous interlayer. Physical Review B, 2011, 83, .	3.2	110
84	Nitride nanowire structures for LED applications. Proceedings of SPIE, 2011, , .	0.8	1
85	Fabrication and characterization of a composite ZnO semiconductor as electron transporting layer in dye-sensitized solar cells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 653-659.	3.5	42
86	Effects of chlorine drag on the annealing-induced abnormal grain growth in polycrystalline CdTe. Journal of Crystal Growth, 2011, 316, 1-5.	1.5	5
87	Physical origin of the incubation time of self-induced GaN nanowires. Applied Physics Letters, 2011, 99, 033102.	3.3	57
88	Morphological and electrical characterization of ZnO nanocomposites in dye-sensitized solar cells. Journal of Renewable and Sustainable Energy, 2011, 3, .	2.0	6
89	Zinc oxide nanostructured material for dye sensitized solar cells. , 2010, , .		0
90	Unpinning the Fermi level of GaN nanowires by ultraviolet radiation. Physical Review B, 2010, 82, .	3.2	60

#	Article	IF	CITATIONS
91	Nucleation mechanisms of epitaxial GaN nanowires: Origin of their self-induced formation and initial radius. Physical Review B, 2010, 81, .	3.2	138
92	<i>In situ</i> analysis of strain relaxation during catalyst-free nucleation and growth of GaN nanowires. Nanotechnology, 2010, 21, 245705.	2.6	46
93	Local redistribution of dopants and defects induced by annealing in polycrystalline compound semiconductors. Physical Review B, 2009, 80, .	3.2	17
94	Correlated structural reordering and dopant redistribution in annealed polycrystalline CdTe. Journal of Applied Physics, 2009, 105, 083535.	2.5	18
95	Effects of nanowire coalescence on their structural and optical properties on a local scale. Applied Physics Letters, 2009, 95, .	3.3	84
96	The flow stress in polycrystalline films: Dimensional constraints and strengthening effects. Acta Materialia, 2008, 56, 6087-6096.	7.9	11
97	Plasticity induced texture development in thick polycrystalline CdTe: Experiments and modeling. Journal of Applied Physics, 2008, 103, 063529.	2.5	32
98	Correlated Evolution of the Structural and the Optical Properties During the Growth of Cl-Doped Polycrystalline CdTe. Journal of the Korean Physical Society, 2008, 53, 2808-2810.	0.7	0
99	Effects of island coalescence on the compensation mechanisms in chlorine doped polycrystalline CdTe. Journal of Applied Physics, 2007, 101, 063522.	2.5	21
100	Evolution Of Cathodoluminescence Spectra Upon CdTe Island Coalescence. AIP Conference Proceedings, 2007, , .	0.4	0
101	Compensation and defect passivation processes in polycrystalline CdTe: Cl layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 807-811.	0.8	6
102	Spectroscopic analysis of defects in chlorine doped polycrystalline CdTe. Journal of Applied Physics, 2006, 99, 053502.	2.5	36