

Davide Calestani

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

95
papers

2,156
citations

26
h-index

43
g-index

103
ext. papers

2,388
ext. citations

3.7
avg. IF

4.5
L-index

#	Paper	IF	Citations
95	Growth of ZnO tetrapods for nanostructure-based gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2010 , 144, 472-478	8.5	163
94	ZnO gas sensors: A comparison between nanoparticles and nanotetrapods-based thick films. <i>Sensors and Actuators B: Chemical</i> , 2009 , 137, 164-169	8.5	129
93	Zn vacancy induced green luminescence on non-polar surfaces in ZnO nanostructures. <i>Scientific Reports</i> , 2014 , 4, 5158	4.9	118
92	Tin oxide nanobelts electrical and sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2005 , 111-112, 2-6	8.5	100
91	Human stress monitoring through an organic cotton-fiber biosensor. <i>Journal of Materials Chemistry B</i> , 2014 , 2, 5620-5626	7.3	85
90	Aldehyde detection by ZnO tetrapod-based gas sensors. <i>Journal of Materials Chemistry</i> , 2011 , 21, 15532		73
89	A single cotton fiber organic electrochemical transistor for liquid electrolyte saline sensing. <i>Journal of Materials Chemistry</i> , 2012 , 22, 23830		70
88	Structural and optical study of SnO ₂ nanobelts and nanowires. <i>Materials Science and Engineering C</i> , 2005 , 25, 625-630	8.3	70
87	Low-temperature In ₂ O ₃ nanowire luminescence properties as a function of oxidizing thermal treatments. <i>Nanotechnology</i> , 2007 , 18, 355707	3.4	68
86	Influence of the Synthetic Procedures on the Structural and Optical Properties of Mixed-Halide (Br, I) Perovskite Films. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 21304-21313	3.8	65
85	Morphological, structural and optical study of quasi-1D SnO ₂ nanowires and nanobelts. <i>Crystal Research and Technology</i> , 2005 , 40, 937-941	1.3	62
84	ZnS and ZnO Nanosheets from ZnS(en) _{0.5} Precursor: Nanoscale Structure and Photocatalytic Properties. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 6960-6965	3.8	59
83	NO ₂ Gas Sensing Mechanism of ZnO Thin-Film Transducers: Physical Experiment and Theoretical Correlation Study. <i>ACS Sensors</i> , 2016 , 1, 406-412	9.2	47
82	Analytical approaches for the characterization and quantification of nanoparticles in food and beverages. <i>Analytical and Bioanalytical Chemistry</i> , 2017 , 409, 63-80	4.4	47
81	Unpredicted nucleation of extended zinc blende phases in wurtzite ZnO nanotetrapod arms. <i>ACS Nano</i> , 2009 , 3, 3158-64	16.7	46
80	15% efficient Cu(In,Ga)Se ₂ solar cells obtained by low-temperature pulsed electron deposition. <i>Applied Physics Letters</i> , 2012 , 101, 132107	3.4	42
79	Low temperature thermal evaporation growth of aligned ZnO nanorods on ZnO film: a growth mechanism promoted by Zn nanoclusters on polar surfaces. <i>CrystEngComm</i> , 2011 , 13, 1707-1712	3.3	42

78	Nucleation and growth of SnO ₂ nanowires. <i>Journal of Crystal Growth</i> , 2005 , 275, e2083-e2087	1.6	39
77	Extended functionality of ZnO nanotetrapods by solution-based coupling with CdS nanoparticles. <i>Journal of Materials Chemistry</i> , 2012 , 22, 5694		38
76	Large-area self-catalysed and selective growth of ZnO nanowires. <i>Nanotechnology</i> , 2008 , 19, 325603	3.4	33
75	Enzymatic sensing with laccase-functionalized textile organic biosensors. <i>Organic Electronics</i> , 2017 , 40, 51-57	3.5	30
74	Boron Oxide Encapsulated Vertical Bridgman Grown CdZnTe Crystals as X-Ray Detector Material. <i>IEEE Transactions on Nuclear Science</i> , 2009 , 56, 1743-1746	1.7	30
73	Growth and Characterization of CZT Crystals by the Vertical Bridgman Method for X-Ray Detector Applications. <i>IEEE Transactions on Nuclear Science</i> , 2011 , 58, 2352-2356	1.7	29
72	Effect of grain-size on the ethanol vapor sensing properties of room-temperature sputtered ZnO thin films. <i>Mikrochimica Acta</i> , 2015 , 182, 1991-1999	5.8	28
71	Mesoporous single-crystal ZnO nanobelts: supported preparation and patterning. <i>Nanoscale</i> , 2013 , 5, 1060-6	7.7	28
70	Full encapsulated CdZnTe crystals by the vertical Bridgman method. <i>Journal of Crystal Growth</i> , 2008 , 310, 2072-2075	1.6	28
69	In-catalyzed growth of high-purity indium oxide nanowires. <i>Chemical Physics Letters</i> , 2007 , 445, 251-254	2.5	25
68	Nanoscale mapping of plasmon and exciton in ZnO tetrapods coupled with Au nanoparticles. <i>Scientific Reports</i> , 2016 , 6, 19168	4.9	24
67	Development of a combined SEM and ICP-MS approach for the qualitative and quantitative analyses of metal nano and microparticles in food products [corrected]. <i>Analytical and Bioanalytical Chemistry</i> , 2011 , 401, 1401-9	4.4	24
66	Branched gold nanoparticles on ZnO 3D architecture as biomedical SERS sensors. <i>RSC Advances</i> , 2015 , 5, 93644-93651	3.7	22
65	Growth of tin oxide nanocrystals. <i>Crystal Research and Technology</i> , 2005 , 40, 932-936	1.3	21
64	All-Inorganic CsPbBr Perovskite Films Prepared by Single Source Thermal Ablation. <i>Frontiers in Chemistry</i> , 2020 , 8, 313	5	18
63	Role of the substrates in the ribbon orientation of Sb ₂ Se ₃ films grown by Low-Temperature Pulsed Electron Deposition. <i>Solar Energy Materials and Solar Cells</i> , 2020 , 218, 110724	6.4	18
62	Progress on Low-Temperature Pulsed Electron Deposition of CuInGaSe ₂ Solar Cells. <i>Energies</i> , 2016 , 9, 207	3.1	18
61	Composite multifunctional nanostructures based on ZnO tetrapods and superparamagnetic Fe ₃ O ₄ nanoparticles. <i>Nanotechnology</i> , 2013 , 24, 135601	3.4	17

60	Low temperature sensing properties of a nano hybrid material based on ZnO nanotetrapods and titanil phthalocyanine. <i>Sensors</i> , 2013 , 13, 3445-53	3.8	17
59	Solution-free and catalyst-free synthesis of ZnO-based nanostructured TCOs by PED and vapor phase growth techniques. <i>Nanotechnology</i> , 2012 , 23, 194008	3.4	17
58	Selective response inversion to NO ₂ and acetic acid in ZnO and CdS nanocomposite gas sensor. <i>Nanotechnology</i> , 2014 , 25, 365502	3.4	16
57	A new method to integrate ZnO nano-tetrapods on MEMS micro-hotplates for large scale gas sensor production. <i>Nanotechnology</i> , 2016 , 27, 385503	3.4	16
56	Smart composites materials: A new idea to add gas-sensing properties to commercial carbon-fibers by functionalization with ZnO nanowires. <i>Sensors and Actuators B: Chemical</i> , 2017 , 245, 166-170	8.5	15
55	Silica diatom shells tailored with Au nanoparticles enable sensitive analysis of molecules for biological, safety and environment applications. <i>Nanoscale Research Letters</i> , 2018 , 13, 94	5	15
54	Modeling, Fabrication and Testing of a Customizable Micromachined Hotplate for Sensor Applications. <i>Sensors</i> , 2016 , 17,	3.8	15
53	Microtexturing of the conductive PEDOT:PSS polymer for superhydrophobic organic electrochemical transistors. <i>BioMed Research International</i> , 2014 , 2014, 302694	3	15
52	Strong mechanical adhesion of gold electroless contacts on CdZnTe deposited by alcoholic solutions. <i>Journal of Instrumentation</i> , 2017 , 12, P02018-P02018	1	14
51	Single crystal mesoporous ZnO platelets as efficient photoanodes for sensitized solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 168, 227-233	6.4	14
50	Effect of humidity on the a.c. impedance of CH ₃ NH ₃ SnCl ₃ hybrid films. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 104, 1181-1187	2.6	13
49	Solvothermal synthesis of ZnS[C ₂ H ₄ (NH ₂) ₂] _{0.5} nanosheets. <i>Crystal Research and Technology</i> , 2011 , 46, 818-822	1.3	13
48	Vapour-phase growth, purification and large-area deposition of ZnO tetrapod nanostructures. <i>Crystal Research and Technology</i> , 2010 , 45, 667-671	1.3	13
47	Low concentration CO gas sensing properties of hybrid ZnO architecture. <i>Microelectronic Engineering</i> , 2016 , 160, 12-17	2.5	13
46	Martensite-enabled magnetic flexibility: The effects of post-growth treatments in magnetic-shape-memory Heusler thin films. <i>Acta Materialia</i> , 2020 , 187, 135-145	8.4	12
45	Live-monitoring of Te inclusions laser-induced thermo-diffusion and annealing in CdZnTe crystals. <i>Applied Physics Letters</i> , 2014 , 104, 252105	3.4	11
44	Growth and characterization of Ga ₂ O ₃ nanowires obtained on not-catalyzed and Au/Pt catalyzed substrates. <i>Journal of Crystal Growth</i> , 2017 , 457, 255-261	1.6	10
43	Functionalization of carbon fiber tows with ZnO nanorods for stress sensor integration in smart composite materials. <i>Nanotechnology</i> , 2018 , 29, 335501	3.4	10

42	Facile synthesis of hierarchical CuO nanostructures with enhanced photocatalytic activity. <i>Crystal Research and Technology</i> , 2014 , 49, 594-598	1.3	9
41	Unmanned aerial vehicle equipped with spectroscopic CdZnTe detector for detection and identification of radiological and nuclear material 2015 ,		9
40	A first principle method to simulate the spectral response of CdZnTe-based X- and gamma-ray detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2020 , 960, 163663	1.2	8
39	Turning carbon fiber into a stress-sensitive composite material. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 10486-10492	1.3	8
38	Two-step thermal process in tellurium vapor for tellurium inclusion annealing in high resistivity CdZnTe crystals. <i>Journal of Crystal Growth</i> , 2015 , 415, 15-19	1.6	8
37	Electrical properties of Au/CdZnTe/Au detectors grown by the boron oxide encapsulated Vertical Bridgman technique. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016 , 830, 243-250	1.2	8
36	An affordable method to produce CuInS ₂ mechano-targets for film deposition. <i>Semiconductor Science and Technology</i> , 2020 , 35, 045026	1.8	7
35	Study of the anomalous zinc distribution in vertical Bridgman grown CdZnTe crystals. <i>CrystEngComm</i> , 2013 , 15, 2227-2231	3.3	7
34	Electroless gold contact deposition on CdZnTe detectors by scanning pipette technique. <i>Journal of Instrumentation</i> , 2012 , 7, P08022-P08022	1	7
33	Control of the interface shape in vertical Bridgman grown CdZnTe crystals for X-ray detector applications. <i>CrystEngComm</i> , 2012 , 14, 5992	3.3	7
32	Pd/PdO functionalization of SnO ₂ nanowires and ZnO nanotetrapods. <i>Crystal Research and Technology</i> , 2011 , 46, 847-851	1.3	7
31	. <i>IEEE Transactions on Nuclear Science</i> , 2012 , 59, 1526-1530	1.7	6
30	Directionally Selective Sensitization of ZnO Nanorods by TiOPc: A Novel Approach to Functionalized Nanosystems. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 8223-8229	3.8	6
29	Oriented orthorhombic Lead Oxide film grown by vapour phase deposition for X-ray detector applications. <i>Crystal Research and Technology</i> , 2013 , 48, 245-250	1.3	6
28	Controllable vapor phase growth of vertically aligned ZnO nanorods on TCO/Glass substrates. <i>Crystal Research and Technology</i> , 2014 , 49, 558-563	1.3	5
27	Transforming diatomaceous earth into sensing devices by surface modification with gold nanoparticles. <i>Micro and Nano Engineering</i> , 2019 , 2, 29-34	3.4	4
26	Haptic Teleoperation of UAV Equipped with Gamma-Ray Spectrometer for Detection and Identification of Radio-Active Materials in Industrial Plants 2019 , 197-214		4
25	Characterization of CZT crystals grown by the boron oxide encapsulated vertical Bridgman technique for the preparation of X-ray imaging detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011 , 688, 582-594	1.2	4

24	Preparation and characterization of powders and crystals of $V_{n-x}Ti_xO_{2n-1}$ Magneli oxides. <i>Crystal Research and Technology</i> , 2005 , 40, 1067-1071	1-3	4
23	Sub-Micropillar Spacing Modulates the Spatial Arrangement of Mouse MC3T3-E1 Osteoblastic Cells. <i>Nanomaterials</i> , 2019 , 9,	5-4	4
22	High energy resolution pixel detectors based on boron oxide vertical Bridgman grown CdZnTe crystals 2014 ,		3
21	Fabrication of ZnO-nanowire-coated thin-foil targets for ultra-high intensity laser interaction experiments. <i>Matter and Radiation at Extremes</i> , 2021 , 6, 046903	4-7	3
20	Charge-separation enhancement in inverted polymer solar cells by molecular-level triple heterojunction: NiO-np:P3HT:PCBM. <i>Nanotechnology</i> , 2017 , 28, 035403	3-4	2
19	InZnO nanorods obtained via zinc vapour phase deposition on liquid indium seeded substrates. <i>CrystEngComm</i> , 2014 , 16, 1696	3-3	2
18	Mechanically stable metal layers for ohmic and blocking contacts on CdZnTe detectors by electroless deposition 2015 ,		2
17	Electroless gold patterning of CdZnTe crystals for radiation detection by scanning pipette technique. <i>Crystal Research and Technology</i> , 2014 , 49, 535-539	1-3	2
16	Tuning morphology and magnetism in epitaxial L10-FePt films. <i>EPJ Web of Conferences</i> , 2013 , 40, 08001	0-3	2
15	On the Role of Oxygen Vacancies in the Determination of the Gas-Sensing Properties of Tin-Oxide Nanowires. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 915, 1		2
14	Deposition of CdTe films under microgravity: Foton M3 mission. <i>Crystal Research and Technology</i> , 2009 , 44, 1059-1066	1-3	1
13	Magnetocaloric properties at the austenitic Curie transition in Cu and Fe substituted Ni-Mn-In Heusler compounds. <i>Journal of Alloys and Compounds</i> , 2022 , 899, 163249	5-7	1
12	Overcoming the planar contact geometry limitation for the measurement of transport properties and electric field distribution in X- and gamma ray detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018 , 908, 411-415	1-2	1
11	Growth and structural characterization of Sb ₂ Se ₃ solar cells with vertical Sb ₄ Se ₆ ribbon alignment by RF magnetron sputtering. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 385502	3	1
10	Single-Source Thermal Ablation of halide perovskites, limitations and opportunities: The lesson of MAPbBr ₃ . <i>Journal of Alloys and Compounds</i> , 2021 , 875, 159954	5-7	1
9	Mechanosynthesis of multiferroic hybrid organic-inorganic [NH ₄][M(HCOO) ₃] M=[Co ²⁺ , Mn ²⁺ , Zn ²⁺ , Ni ²⁺ , Cu ²⁺] formate-based frameworks. <i>Journal of Alloys and Compounds</i> , 2022 , 899, 163288	5-7	0
8	Numerical and experimental investigation of CdZnTe growth by the boron oxide encapsulated vertical Bridgman method. <i>International Journal of Heat and Mass Transfer</i> , 2021 , 176, 121490	4-9	0
7	Characterization of the physical and chemical properties of engineered nanomaterials 2019 , 31-57		

- 6 The challenge for large-scale vapor-phase growths of not-catalyzed ZnO nanostructures: purity vs. yield. *Materials Research Society Symposia Proceedings*, **2009**, 1174, 43
- 5 Pulsed electron deposition (PED) of single buffer layer for low-cost YBCO coated conductors. *Journal of Physics: Conference Series*, **2008**, 97, 012197 0.3
- 4 Visible-Range Luminescence Study in Indium Oxide Nanowires. *Materials Research Society Symposia Proceedings*, **2007**, 1010, 1
- 3 TEM Characterization of ZnO Nanorods. *Springer Proceedings in Physics*, **2008**, 241-246 0.2
- 2 Crystal growth of nanostructured zinc oxide nanorods from the seed layer. *Materials Science-Poland*, **2018**, 36, 477-482 0.6
- 1 Evaluating the plasmon-exciton interaction in ZnO tetrapods coupled with gold nanostructures by nanoscale cathodoluminescence. *Nano Express*, **2021**, 2, 014004 2