

Massimo Catalano

List of Publications by Year in descending order

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99
papers

2,829
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186265

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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Block Copolymer and Cellulose Templated Mesoporous TiO ₂ -SiO ₂ Nanocomposite as Superior Photocatalyst. <i>Catalysts</i> , 2022, 12, 770.	3.5	7
2	Optimization of Digital Growth of Thick N-Polar InGaN by MOCVD. <i>Journal of Electronic Materials</i> , 2020, 49, 3450-3454.	2.2	2
3	Nonpolar Resistive Switching of Multilayer h-BN Based Memories. <i>Advanced Electronic Materials</i> , 2020, 6, 1900979.	5.1	42
4	Atomic Layer Deposition of Layered Boron Nitride for Large-Area 2D Electronics. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 36688-36694.	8.0	22
5	Controlling Carrier Type and Concentration in NiO Films To Enable <i>in Situ</i> PN Homojunctions. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 27048-27056.	8.0	20
6	InAs/AlGaAs quantum dots grown by a novel molecular beam epitaxy multistep design for intermediate band solar cells: physical insight into the structure, composition, strain and optical properties. <i>CrystEngComm</i> , 2019, 21, 4644-4652.	2.6	1
7	High stability of ultra-small and isolated gold nanoparticles in metal-organic framework materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17536-17546.	10.3	41
8	Engineering the interface chemistry for scandium electron contacts in WSe ₂ transistors and diodes. <i>2D Materials</i> , 2019, 6, 045020.	4.4	13
9	Enhancing Interconnect Reliability and Performance by Converting Tantalum to 2D Layered Tantalum Sulfide at Low Temperature. <i>Advanced Materials</i> , 2019, 31, e1902397.	21.0	35
10	High- ϵ Dielectric on ReS ₂ : In-Situ Thermal Versus Plasma-Enhanced Atomic Layer Deposition of Al ₂ O ₃ . <i>Materials</i> , 2019, 12, 1056.	2.9	14
11	Physical insight in the fluence-dependent distributions of Au nanoparticles produced by sub-picosecond UV pulsed laser ablation of a solid target in vacuum environment. <i>Applied Surface Science</i> , 2019, 480, 330-340.	6.1	3
12	Luminescent Silica-Based Nanostructures from in Vivo Iridium-Doped Diatoms Microalgae. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 2207-2215.	6.7	23
13	Engineering the Palladium-WSe ₂ Interface Chemistry for Field Effect Transistors with High-Performance Hole Contacts. <i>ACS Applied Nano Materials</i> , 2019, 2, 75-88.	5.0	24
14	Metal-organic chemical vapor deposition of N-polar InN quantum dots and thin films on vicinal GaN. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	17
15	Direct bonding of copper and liquid crystal polymer. <i>Materials Letters</i> , 2018, 212, 214-217.	2.6	11
16	Dependence of h-BN Film Thickness as Grown on Nickel Single-Crystal Substrates of Different Orientations. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 44862-44870.	8.0	15
17	Dy- and Tb-doped CeO ₂ -Ni cermets for solid oxide fuel cell anodes: electrochemical fabrication, structural characterization, and electrocatalytic performance. <i>Journal of Solid State Electrochemistry</i> , 2018, 22, 3761-3773.	2.5	5
18	Tailoring MWCNTs and β -Cyclodextrin for Sensitive Detection of Acetaminophen and Estrogen. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 21411-21427.	8.0	66

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19	Enhanced thermal conductivity in Cu/diamond composites by tailoring the thickness of interfacial TiC layer. Composites Part A: Applied Science and Manufacturing, 2018, 113, 76-82.	7.6	80
20	Metal-Organic-Inorganic Nanocomposite Thermal Interface Materials with Ultralow Thermal Resistances. ACS Applied Materials & Interfaces, 2017, 9, 10120-10127.	8.0	17
21	Growth assessment of (002)-oriented AlN thin films on Ti bottom electrode deposited on silicon and kapton substrates. Materials and Design, 2017, 119, 151-158.	7.0	16
22	Indium segregation in N-polar InGaN quantum wells evidenced by energy dispersive X-ray spectroscopy and atom probe tomography. Applied Physics Letters, 2017, 110, .	3.3	34
23	(1 0 1) and (0 0 2) oriented AlN thin films deposited by sputtering. Materials Letters, 2017, 200, 18-20.	2.6	24
24	Metal-organic chemical vapor deposition of high quality, high indium composition N-polar InGaN layers for tunnel devices. Journal of Applied Physics, 2017, 121, 185707.	2.5	18
25	Studies of two-dimensional h-BN and MoS2 for potential diffusion barrier application in copper interconnect technology. Npj 2D Materials and Applications, 2017, 1, .	7.9	57
26	Inter-level carrier dynamics and photocurrent generation in large band gap quantum dot solar cell by multistep growth. Solar Energy Materials and Solar Cells, 2017, 171, 142-147.	6.2	8
27	High Spatial Resolution Energy Dispersive X-ray Spectroscopy and Atom Probe Tomography study of Indium segregation in N-polar InGaN Quantum Wells. Microscopy and Microanalysis, 2017, 23, 1448-1449.	0.4	1
28	Peroxidase-like properties of Ruthenium nanoframes. Science Bulletin, 2016, 61, 1739-1745.	9.0	45
29	Edge-melting: nanoscale key-mechanism to explain nanoparticle formation from heated TEM grids. Applied Surface Science, 2016, 365, 191-201.	6.1	0
30	Ru Nanoframes with an fcc Structure and Enhanced Catalytic Properties. Nano Letters, 2016, 16, 2812-2817.	9.1	187
31	Au nanoparticles decoration of silica nanowires for improved optical bio-sensing. Sensors and Actuators B: Chemical, 2016, 226, 589-597.	7.8	14
32	Novel polymeric sorbents based on imprinted Hg(II)-diphenylcarbazone complexes for mercury removal from drinking water. Polymer Journal, 2016, 48, 73-79.	2.7	33
33	Synthesis and Characterization of Collagen Scaffolds Reinforced by Eggshell Derived Hydroxyapatite for Tissue Engineering. Journal of Nanoscience and Nanotechnology, 2015, 15, 504-509.	0.9	34
34	Role of oxygen contaminant on the physical properties of sputtered AlN thin films. Journal of Alloys and Compounds, 2015, 649, 1267-1272.	5.5	25
35	Structural, Morphological, and Chemical Properties of Cu/TiN Versus Cu Thin Layers for HEMT Backside Metallization. IEEE Transactions on Device and Materials Reliability, 2014, 14, 890-897.	2.0	3
36	Quasi-in-Situ Single-Grain Photoelectron Microspectroscopy of Co/PPy Nanocomposites under Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2014, 6, 19621-19629.	8.0	17

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37	Biphase TiO ₂ Microspheres with Enhanced Photocatalytic Activity. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 7931-7938.	3.7	65
38	MAPLE deposition of nanomaterials. <i>Applied Surface Science</i> , 2014, 302, 92-98.	6.1	22
39	Morphological and structural characterization of Sm ^{III} -S compounds prepared by thermolysis of dithiocarbamate precursors. <i>Thin Solid Films</i> , 2014, 556, 241-246.	1.8	3
40	Structural and morphological evolution of aluminum nitride thin films: Influence of additional energy to the sputtering process. <i>Journal of Physics and Chemistry of Solids</i> , 2013, 74, 1444-1451.	4.0	13
41	Pulsed laser deposition of a dense and uniform Au nanoparticles layer for surface plasmon enhanced efficiency hybrid solar cells. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	20
42	Electrochemical fabrication of nanoporous gold-supported manganese oxide nanowires based on electrodeposition from eutectic urea/choline chloride ionic liquid. <i>Electrochimica Acta</i> , 2013, 87, 918-924.	5.2	23
43	Optimization of electron beam induced deposition process for the fabrication of diode-like Pt/SiO ₂ /W devices. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013, 31, 041805.	1.2	5
44	Green production of polymer-supported PdNPs: application to the environmentally benign catalyzed synthesis of cis-3-hexen-1-ol under flow conditions. <i>Dalton Transactions</i> , 2012, 41, 12666.	3.3	27
45	Enhancement of the optically activated NO ₂ gas sensing response of brookite TiO ₂ nanorods/nanoparticles thin films deposited by matrix-assisted pulsed-laser evaporation. <i>Sensors and Actuators B: Chemical</i> , 2012, 161, 869-879.	7.8	34
46	Structural characterization of ultrathin Cr-doped ITO layers deposited by double-target pulsed laser ablation. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 365403.	2.8	10
47	Antibacterial coatings on haemodialysis catheters by photochemical deposition of silver nanoparticles. <i>Journal of Materials Science: Materials in Medicine</i> , 2011, 22, 2005-2012.	3.6	100
48	Films of brookite TiO ₂ nanorods/nanoparticles deposited by matrix-assisted pulsed laser evaporation as NO ₂ gas-sensing layers. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 104, 963-968.	2.3	23
49	Study of titania nanorod films deposited by matrix-assisted pulsed laser evaporation as a function of laser fluence. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 105, 605-610.	2.3	4
50	Electrical and optical properties of ITO and ITO/Cr-doped ITO films. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 101, 753-758.	2.3	13
51	Substrate-Au catalyst influence on the growth of ZnO nanorods. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2010, 172, 225-230.	3.5	4
52	The effects of the focus ion beam milling process on the optical properties of semiconductor nanostructures. <i>Nanotechnology</i> , 2009, 20, 255306.	2.6	4
53	Scanning transmission electron microscopy determination of critical InAs QD parameters from high-quality focused ion beam lamellas. <i>Semiconductor Science and Technology</i> , 2009, 24, 085001.	2.0	0
54	Morphological and compositional effects of FIB nanopatterning of multilayer metal/semiconducting devices. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2009, 41, 734-738.	2.7	4

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55	Electronic structure of double stacked InAs ⁺ GaAs quantum dots: Experiment and theory. Journal of Applied Physics, 2007, 102, 094314.	2.5	7
56	Noncovalent imprinted microspheres: Preparation, evaluation and selectivity of DBU template. Journal of Applied Polymer Science, 2007, 105, 2190-2197.	2.6	17
57	Critical issues in the focused ion beam patterning of nanometric hole matrixes on GaAs based semiconducting devices. Nanotechnology, 2006, 17, 1758-1762.	2.6	13
58	A modeling and convolution method to measure compositional variations in strained alloy quantum dots. Ultramicroscopy, 2003, 94, 1-18.	1.9	14
59	Structural and electrical characterisation of molybdenum-titanium mixed oxides for ethanol sensing deposited by RF sputtering. Sensors and Actuators B: Chemical, 2003, 92, 286-291.	7.8	20
60	Comparison of radiative and structural properties of 1.3 μ m In _x Ga _(1-x) As quantum-dot laser structures grown by metalorganic chemical vapor deposition and molecular-beam epitaxy: Effect on the lasing properties. Applied Physics Letters, 2003, 82, 3632-3634.	3.3	31
61	Structural and optical properties of molybdenum-tungsten mixed oxide thin films deposited by the sol-gel technique. Journal of Applied Physics, 2003, 93, 3816-3822.	2.5	15
62	Luminescence Following Highly Localized Hole Carrier Injection into InGaAs Quantum Dots. Japanese Journal of Applied Physics, 2002, 41, 5127-5128.	1.5	1
63	Molybdenum-based nanostructured mixed oxides for sensing applications: Effect of the Mo oxide composition on the structure of sol-gel thin films. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 2433.	1.6	3
64	Tuning InAs/GaAs quantum dot properties under Stranski-Krastanov growth mode for 1.3 μ m applications. Journal of Applied Physics, 2002, 91, 6710.	2.5	95
65	Influence of the N ₂ /H ₂ ratio on the structural features of In _x Ga _(1-x) N/GaN films grown by MOCVD. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 87, 237-243.	3.5	1
66	Effects of coupling on the structural properties of In _x Ga _(1-x) As/GaAs 1-D and 0-D self-organized quantum structures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 87, 256-261.	3.5	3
67	Microstructural characterization of MoO ₃ -TiO ₂ nanocomposite thin films for gas sensing. Sensors and Actuators B: Chemical, 2001, 77, 27-34.	7.8	40
68	Structure and magnetic properties of alloy-based nanoparticles silica composites prepared by ion-implantation and sol-gel techniques. Materials Science and Engineering C, 2001, 15, 59-61.	7.3	18
69	Nanoscale Compositional Fluctuations in Single InGaAs/GaAs Quantum Dots. Physica Status Solidi (B): Basic Research, 2001, 224, 17-20.	1.5	8
70	Influence of annealing atmosphere on metal and metal alloy nanoclusters produced by ion implantation in silica. Nuclear Instruments & Methods in Physics Research B, 2001, 178, 176-179.	1.4	32
71	Direct quantitative measurement of compositional enrichment and variations in In _y Ga _(1-y) As quantum dots. Applied Physics Letters, 2001, 79, 3170-3172.	3.3	19
72	Structural study of InGaAs/GaAs quantum dots grown by metalorganic chemical vapor deposition for optoelectronic applications at 1.3 μ m. Journal of Applied Physics, 2001, 89, 4341-4348.	2.5	41

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73	Preparation and characterisation of organic-inorganic heterojunction based on BDA-PPV/CdS nanocrystals. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000, 74, 175-179.	3.5	12
74	Time-resolved magneto-optical properties of V-shaped single quantum wires. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 7, 536-540.	2.7	1
75	Correlation between shape and electronic states in nanostructures. <i>Micron</i> , 2000, 31, 245-251.	2.2	6
76	Synthesis and structural characterisation of CdS nanoparticles prepared in a four-components water-in-oil microemulsion. <i>Micron</i> , 2000, 31, 253-258.	2.2	76
77	Plasma-Deposition of Ag-Containing Polyethyleneoxide-Like Coatings. <i>Plasmas and Polymers</i> , 2000, 5, 1-14.	1.5	54
78	Synthesis and Characterization of CdS Nanoclusters in a Quaternary Microemulsion: the Role of the Cosurfactant. <i>Journal of Physical Chemistry B</i> , 2000, 104, 8391-8397.	2.6	173
79	Nanoscale compositional fluctuations in multiple InGaAs/GaAs quantum wires. <i>Journal of Applied Physics</i> , 2000, 87, 2261-2264.	2.5	9
80	Effects of quantum mechanical coupling on the optical properties of vertically stacked V-groove quantum wires. <i>Journal of Applied Physics</i> , 2000, 88, 772-776.	2.5	2
81	Time resolved screening of the piezoelectric field in InGaAs/GaAs V-shaped quantum wires of variable profile. <i>Journal of Physics Condensed Matter</i> , 1999, 11, 5989-5997.	1.8	3
82	Recombination in InGaAs/GaAs quantum wire lasers. <i>Solid State Communications</i> , 1999, 112, 55-60.	1.9	2
83	TEM characterization of single and multiple InGaAs/GaAs quantum wires grown by metal-organic vapor phase epitaxy on V-grooved substrates. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1999, 67, 39-45.	3.5	1
84	Influence of different V-grooved GaAs substrates on the geometrical shape of InGaAs/GaAs quantum wires. <i>Journal of Crystal Growth</i> , 1999, 197, 777-782.	1.5	12
85	Fabrication and characterization of strained InGaAs quantum wires grown on high index V-grooved GaAs substrates by LP-MOVPE. <i>Superlattices and Microstructures</i> , 1999, 25, 481-485.	3.1	1
86	Room Temperature Lasing at Blue Wavelengths in Gallium Nitride Microcavities. <i>Science</i> , 1999, 285, 1905-1906.	12.6	237
87	Microphotoluminescence spectroscopy of vertically stacked In _x Ga _{1-x} As/GaAs quantum wires. <i>Physical Review B</i> , 1998, 58, 1962-1966.	3.2	19
88	Structure and chemistry of Ag-Cu nanoclusters in a silica matrix by the sol-gel process. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1997, 76, 621-628.	0.6	7
89	Silver nanocrystals in silica by sol-gel processing. <i>Journal of Non-Crystalline Solids</i> , 1996, 194, 225-234.	3.1	128
90	Annealing behavior of silver, copper, and silver-copper nanoclusters in a silica matrix synthesized by the sol-gel technique. <i>Journal of Applied Physics</i> , 1996, 80, 6734-6739.	2.5	90

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91	Formation of copper and silver nanometer dimension clusters in silica by the sol-gel process. Applied Physics Letters, 1996, 68, 3820-3822.	3.3	124
92	Porous Silica-Coated alpha-Fe ₂ O ₃ Ceramics for Humidity Measurement at Elevated Temperature. Journal of the American Ceramic Society, 1996, 79, 927-937.	3.8	65
93	Metal Nanocrystals in Amorphous Silica Matrix by the Sol-Gel Process. Materials Science Forum, 1996, 203, 59-64.	0.3	3
94	Structural characterization of lattice matched Al _x In _{1-x} As/InP and Ga _y In _{1-y} As/InP heterostructures by transmission electron microscopy and high-resolution x-ray diffraction. Journal of Applied Physics, 1995, 78, 2403-2410.	2.5	12
95	Chemical aspects in copper-implanted fused silica and soda-lime glasses. Journal of Applied Physics, 1995, 77, 1294-1300.	2.5	37
96	TEM Characterization of Palladium and Silver Nanoclusters in Glass Matrix. Materials Science Forum, 1995, 195, 87-92.	0.3	1
97	Microstructural and Microanalytical Characterization of Pd Clusters in ORMOCER Matrix. Microscopy Microanalysis Microstructures, 1995, 6, 611-619.	0.4	4
98	The composition and structure of SIPOS: A high spatial resolution electron microscopy study. Journal of Materials Research, 1993, 8, 2893-2901.	2.6	17
99	Optical Absorption Measurements at High Temperature (500 °C) of Oxide Nanoparticles for Application as Gas-Based Nanofluid in Solar Thermal Collector Systems. Advanced Materials Research, 0, 773, 80-86.	0.3	7