

Rainer Adelung

List of Publications by Year in descending order

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324
papers

12,188
citations

23500

58
h-index

34900

98
g-index

335
all docs

335
docs citations

335
times ranked

12733
citing authors

#	ARTICLE	IF	CITATIONS
1	ZnO tetrapod materials for functional applications. <i>Materials Today</i> , 2018, 21, 631-651.	8.3	473
2	Direct Growth of Freestanding ZnO Tetrapod Networks for Multifunctional Applications in Photocatalysis, UV Photodetection, and Gas Sensing. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 14303-14316.	4.0	433
3	Rapid Fabrication Technique for Interpenetrated ZnO Nanotetrapod Networks for Fast UV Sensors. <i>Advanced Materials</i> , 2014, 26, 1541-1550.	11.1	428
4	Sharper images by focusing soft X-rays with photon sieves. <i>Nature</i> , 2001, 414, 184-188.	13.7	358
5	Aerographite: Ultra Lightweight, Flexible Nanowall, Carbon Microtube Material with Outstanding Mechanical Performance. <i>Advanced Materials</i> , 2012, 24, 3486-3490.	11.1	343
6	Fabrication of Macroscopically Flexible and Highly Porous 3D Semiconductor Networks from Interpenetrating Nanostructures by a Simple Flame Transport Approach. <i>Particle and Particle Systems Characterization</i> , 2013, 30, 775-783.	1.2	278
7	Virostatic potential of micro-“nano filopodia-like ZnO structures against herpes simplex virus-1. <i>Antiviral Research</i> , 2011, 92, 305-312.	1.9	188
8	Silver-doped zinc oxide single nanowire multifunctional nanosensor with a significant enhancement in response. <i>Sensors and Actuators B: Chemical</i> , 2016, 223, 893-903.	4.0	170
9	ZnO tetrapods and activated carbon based hybrid composite: Adsorbents for enhanced decontamination of hexavalent chromium from aqueous solution. <i>Chemical Engineering Journal</i> , 2019, 358, 540-551.	6.6	170
10	Prophylactic, therapeutic and neutralizing effects of zinc oxide tetrapod structures against herpes simplex virus type-2 infection. <i>Antiviral Research</i> , 2012, 96, 363-375.	1.9	167
11	A Novel Concept for Self-Reporting Materials: Stress Sensitive Photoluminescence in ZnO Tetrapod Filled Elastomers. <i>Advanced Materials</i> , 2013, 25, 1342-1347.	11.1	162
12	Synthesis, characterization and DFT studies of zinc-doped copper oxide nanocrystals for gas sensing applications. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6527-6539.	5.2	157
13	Single Step Integration of ZnO Nano- and Microneedles in Si Trenches by Novel Flame Transport Approach: Whispering Gallery Modes and Photocatalytic Properties. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 7806-7815.	4.0	156
14	A Multifunctional Polymeric Periodontal Membrane with Osteogenic and Antibacterial Characteristics. <i>Advanced Functional Materials</i> , 2018, 28, 1703437.	7.8	152
15	Strain-controlled growth of nanowires within thin-film cracks. <i>Nature Materials</i> , 2004, 3, 375-379.	13.3	140
16	Enhanced ethanol vapour sensing performances of copper oxide nanocrystals with mixed phases. <i>Sensors and Actuators B: Chemical</i> , 2016, 224, 434-448.	4.0	140
17	Multifunctional Materials: A Case Study of the Effects of Metal Doping on ZnO Tetrapods with Bismuth and Tin Oxides. <i>Advanced Functional Materials</i> , 2017, 27, 1604676.	7.8	140
18	Micro-tensile bond strength of three luting resins to human regional dentin. <i>Dental Materials</i> , 2006, 22, 45-56.	1.6	138

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19	Hybridization of Zinc Oxide Tetrapods for Selective Gas Sensing Applications. ACS Applied Materials & Interfaces, 2017, 9, 4084-4099.	4.0	135
20	Visible-light photocatalysis by carbon-nano-onion-functionalized ZnO tetrapods: degradation of 2,4-dinitrophenol and a plant-model-based ecological assessment. NPG Asia Materials, 2019, 11, .	3.8	130
21	Single and Networked ZnO@CNT Hybrid Tetrapods for Selective Room-Temperature High-Performance Ammonia Sensors. ACS Applied Materials & Interfaces, 2017, 9, 23107-23118.	4.0	125
22	Intravaginal Zinc Oxide Tetrapod Nanoparticles as Novel Immunoprotective Agents against Genital Herpes. Journal of Immunology, 2016, 196, 4566-4575.	0.4	122
23	Hierarchical self-entangled carbon nanotube tube networks. Nature Communications, 2017, 8, 1215.	5.8	120
24	Ultra-sensitive and selective hydrogen nanosensor with fast response at room temperature based on a single Pd/ZnO nanowire. Sensors and Actuators B: Chemical, 2018, 254, 1259-1270.	4.0	118
25	Functional polymer materials for modern marine biofouling control. Progress in Polymer Science, 2022, 127, 101516.	11.8	118
26	Influence of saliva contamination on zirconia ceramic bonding. Dental Materials, 2008, 24, 508-513.	1.6	117
27	Crystal growth behaviour in Au-ZnO nanocomposite under different annealing environments and photoswitchability. Journal of Applied Physics, 2012, 112, .	1.1	117
28	Three-dimensional SnO ₂ Nanowire Networks for Multifunctional Applications: From High-Temperature Stretchable Ceramics to Ultrasensitive Sensors. Advanced Electronic Materials, 2015, 1, 1500081.	2.6	116
29	Enhanced Photocurrent in BiFeO ₃ Materials by Coupling Temperature and Thermo-Phototronic Effects for Self-Powered Ultraviolet Photodetector System. ACS Applied Materials & Interfaces, 2018, 10, 13712-13719.	4.0	115
30	Versatile Growth of Freestanding Orthorhombic Î±-Molybdenum Trioxide Nano- and Microstructures by Rapid Thermal Processing for Gas Nanosensors. Journal of Physical Chemistry C, 2014, 118, 15068-15078.	1.5	114
31	PdO/PdO ₂ functionalized ZnO@Pd films for lower operating temperature H ₂ gas sensing. Nanoscale, 2018, 10, 14107-14127.	2.8	114
32	Versatile Fabrication of Complex Shaped Metal Oxide Nano-Microstructures and Their Interconnected Networks for Multifunctional Applications. KONA Powder and Particle Journal, 2014, 31, 92-110.	0.9	113
33	Localized Synthesis of Iron Oxide Nanowires and Fabrication of High Performance Nanosensors Based on a Single Fe ₂ O ₃ Nanowire. Small, 2017, 13, 1602868.	5.2	111
34	Photochemical Hydrogen Generation Using Nitrogen-Doped TiO ₂ @Pd Nanoparticles: Facile Synthesis and Effect of Ti ³⁺ Incorporation. Journal of Physical Chemistry C, 2012, 116, 12462-12467.	1.5	105
35	Single and networked CuO nanowires for highly sensitive p-type semiconductor gas sensor applications. Physica Status Solidi - Rapid Research Letters, 2016, 10, 260-266.	1.2	96
36	Toxicity of Functional Nano-Micro Zinc Oxide Tetrapods: Impact of Cell Culture Conditions, Cellular Age and Material Properties. PLoS ONE, 2014, 9, e84983.	1.1	95

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37	Mutual interplay of ZnO micro- and nanowires and methylene blue during cyclic photocatalysis process. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 103016.	3.3	92
38	Necklace-like Nitrogen-Doped Tubular Carbon 3D Frameworks for Electrochemical Energy Storage. <i>Advanced Functional Materials</i> , 2020, 30, 1909725.	7.8	89
39	Joining the Unjoinable: Adhesion Between Low Surface Energy Polymers Using Tetrapodal ZnO Linkers. <i>Advanced Materials</i> , 2012, 24, 5676-5680.	11.1	88
40	Influence of Contamination on Zirconia Ceramic Bonding. <i>Journal of Dental Research</i> , 2007, 86, 749-753.	2.5	84
41	Direction sensitive bending sensors based on multi-wall carbon nanotube/epoxy nanocomposites. <i>Nanotechnology</i> , 2008, 19, 475503.	1.3	84
42	Fully integrable magnetic field sensor based on delta-E effect. <i>Applied Physics Letters</i> , 2011, 99, 223502.	1.5	82
43	Effect of structural change of collagen fibrils on the durability of dentin bonding. <i>Biomaterials</i> , 2005, 26, 5021-5031.	5.7	80
44	Ultra-wide bandwidth with enhanced microwave absorption of electroless Ni-P coated tetrapod-shaped ZnO nano- and microstructures. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 22923-22933.	1.3	79
45	Porous ceramics based on hybrid inorganic tetrapodal networks for efficient photocatalysis and water purification. <i>Ceramics International</i> , 2017, 43, 14915-14922.	2.3	78
46	Tuning ZnO Sensors Reactivity toward Volatile Organic Compounds via Ag Doping and Nanoparticle Functionalization. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 31452-31466.	4.0	78
47	Formation of Self-organized Silver Nanocup-Type Structures and Their Plasmonic Absorption. <i>Plasmonics</i> , 2013, 8, 811-815.	1.8	75
48	Multifunctional device based on ZnO:Fe nanostructured films with enhanced UV and ultra-fast ethanol vapour sensing. <i>Materials Science in Semiconductor Processing</i> , 2016, 49, 20-33.	1.9	73
49	Direct Comparison between Potential Landscape and Local Density of States in a Disordered Two-Dimensional Electron System. <i>Physical Review Letters</i> , 2002, 89, 136806.	2.9	72
50	Nanostructured Fibrous Membranes with Rose Spike-Like Architecture. <i>Nano Letters</i> , 2017, 17, 6235-6240.	4.5	72
51	Piezoresistive Response of Quasi-One-Dimensional ZnO Nanowires Using an in Situ Electromechanical Device. <i>ACS Omega</i> , 2017, 2, 2985-2993.	1.6	72
52	Non-planar nanoscale p-n heterojunctions formation in Zn Cu ₁₀ O nanocrystals by mixed phases for enhanced sensors. <i>Sensors and Actuators B: Chemical</i> , 2016, 230, 832-843.	4.0	70
53	Hierarchical Aerographite nano-microtubular tetrapodal networks based electrodes as lightweight supercapacitor. <i>Nano Energy</i> , 2017, 34, 570-577.	8.2	67
54	Three-dimensional flexible ceramics based on interconnected network of highly porous pure and metal alloyed ZnO tetrapods. <i>Ceramics International</i> , 2016, 42, 8664-8676.	2.3	66

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55	Light-Controlled Growth Factors Release on Tetrapodal ZnO-Incorporated 3D-Printed Hydrogels for Developing Smart Wound Scaffold. <i>Advanced Functional Materials</i> , 2021, 31, 2007555.	7.8	65
56	Epitactically Interpenetrated High Quality ZnO Nanostructured Junctions on Microchips Grown by the Vapor-Liquid-Solid Method. <i>Crystal Growth and Design</i> , 2010, 10, 2842-2846.	1.4	62
57	Rapid switching and ultra-responsive nanosensors based on individual shell-core Ga ₂ O ₃ /GaN:O@SnO ₂ nanobelt with nanocrystalline shell in mixed phases. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 544-555.	4.0	62
58	Influence of CuO nanostructures morphology on hydrogen gas sensing performances. <i>Microelectronic Engineering</i> , 2016, 164, 63-70.	1.1	62
59	Facile fabrication of semiconducting oxide nanostructures by direct ink writing of readily available metal microparticles and their application as low power acetone gas sensors. <i>Nano Energy</i> , 2020, 70, 104420.	8.2	62
60	Sacrificial Template Synthesis and Properties of 3D Hollow-Silicon Nano- and Microstructures. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 20491-20498.	4.0	60
61	Complex shaped ZnO nano- and microstructure based polymer composites: mechanically stable and environmentally friendly coatings for potential antifouling applications. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 7114-7123.	1.3	60
62	Microelectromechanical magnetic field sensor based on $\hat{\nu}$ effect. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	59
63	Achieving Light-Induced Ultrahigh Pyroelectric Charge Density Toward Self-Powered UV Light Detection. <i>Advanced Electronic Materials</i> , 2019, 5, 1800413.	2.6	59
64	Solar light assisted degradation of dyes and adsorption of heavy metal ions from water by CuO-ZnO tetrapodal hybrid nanocomposite. <i>Materials Today Chemistry</i> , 2020, 17, 100336.	1.7	58
65	Tuning of electrical and structural properties of metal-polymer nanocomposite films prepared by co-evaporation technique. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 92, 345-350.	1.1	57
66	3D carbon networks and their polymer composites: Fabrication and electromechanical investigations of neat Aerographite and Aerographite-based PNCs under compressive load. <i>Carbon</i> , 2017, 111, 103-112.	5.4	57
67	Integration of individual TiO ₂ nanotube on the chip: Nanodevice for hydrogen sensing. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 171-174.	1.2	56
68	Strong light scattering and broadband (UV to IR) photoabsorption in stretchable 3D hybrid architectures based on Aerographite decorated by ZnO nanocrystallites. <i>Scientific Reports</i> , 2016, 6, 32913.	1.6	56
69	Sensing performances of pure and hybridized carbon nanotubes-ZnO nanowire networks: A detailed study. <i>Scientific Reports</i> , 2017, 7, 14715.	1.6	56
70	Highly selective and ultra-low power consumption metal oxide based hydrogen gas sensor employing graphene oxide as molecular sieve. <i>Sensors and Actuators B: Chemical</i> , 2020, 320, 128363.	4.0	56
71	Visible-Light Driven Nanoscale Photoconductivity of Grain Boundaries in Self-Supported ZnO Nano- and Microstructured Platelets. <i>Advanced Electronic Materials</i> , 2016, 2, 1600138.	2.6	52
72	3D-Printed Chemiresistive Sensor Array on Nanowire CuO/Cu ₂ O/Cu Heterojunction Nets. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 25508-25515.	4.0	52

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73	Conversionless efficient and broadband laser light diffusers for high brightness illumination applications. <i>Nature Communications</i> , 2020, 11, 1437.	5.8	52
74	Influence of contamination on bonding to zirconia ceramic. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2007, 81B, 283-290.	1.6	51
75	Study of Tetrapodal ZnO-PDMS Composites: A Comparison of Fillers Shapes in Stiffness and Hydrophobicity Improvements. <i>PLoS ONE</i> , 2014, 9, e106991.	1.1	51
76	Zinc oxide nanotetrapods with four different arm morphologies for versatile nanosensors. <i>Sensors and Actuators B: Chemical</i> , 2018, 262, 425-435.	4.0	50
77	Low powered, tunable and ultra-light aerographite sensor for climate relevant gas monitoring. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16723-16730.	5.2	49
78	Low-Temperature Solution Synthesis of Au-Modified ZnO Nanowires for Highly Efficient Hydrogen Nanosensors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 32115-32126.	4.0	49
79	Anti-Lotus Effect for Nanostructuring at the Leidenfrost Temperature. <i>Advanced Materials</i> , 2007, 19, 1262-1266.	11.1	48
80	(CuO-Cu ₂ O)/ZnO:Al heterojunctions for volatile organic compound detection. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 1362-1375.	4.0	47
81	Enhanced UV and ethanol vapour sensing of a single 3-D ZnO tetrapod alloyed with Fe ₂ O ₃ nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2017, 245, 448-461.	4.0	46
82	Three-dimensional Aerographite-GaN hybrid networks: Single step fabrication of porous and mechanically flexible materials for multifunctional applications. <i>Scientific Reports</i> , 2015, 5, 8839.	1.6	45
83	Zinc Oxide Tetrapods Based Biohybrid Interface for Voltammetric Sensing of <i>Helicobacter pylori</i> . <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 30631-30639.	4.0	45
84	Electro-mechanical piezoresistive properties of three dimensionally interconnected carbon aerogel (Aerographite)-epoxy composites. <i>Composites Science and Technology</i> , 2016, 134, 226-233.	3.8	44
85	Buckminsterfullerene hybridized zinc oxide tetrapods: defects and charge transfer induced optical and electrical response. <i>Nanoscale</i> , 2018, 10, 10050-10062.	2.8	44
86	Tin Oxide Nanowires Suppress Herpes Simplex Virus-1 Entry and Cell-to-Cell Membrane Fusion. <i>PLoS ONE</i> , 2012, 7, e48147.	1.1	44
87	Catalytically active CNT-polymer-membrane assemblies: From synthesis to application. <i>Journal of Membrane Science</i> , 2008, 321, 123-130.	4.1	41
88	An Intra-Vaginal Zinc Oxide Tetrapod Nanoparticles (ZOTEN) and Genital Herpesvirus Cocktail Can Provide a Novel Platform for Live Virus Vaccine. <i>Frontiers in Immunology</i> , 2019, 10, 500.	2.2	41
89	TiO ₂ /Cu ₂ O/CuO Multi-Nanolayers as Sensors for H ₂ and Volatile Organic Compounds: An Experimental and Theoretical Investigation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 32363-32380.	4.0	39
90	Efficient oil removal from wastewater based on polymer coated superhydrophobic tetrapodal magnetic nanocomposite adsorbent. <i>Applied Materials Today</i> , 2019, 17, 130-141.	2.3	38

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91	Room temperature gas nanosensors based on individual and multiple networked Au-modified ZnO nanowires. <i>Sensors and Actuators B: Chemical</i> , 2019, 299, 126977.	4.0	38
92	Surface functionalization of ZnO:Ag columnar thin films with AgAu and AgPt bimetallic alloy nanoparticles as an efficient pathway for highly sensitive gas discrimination and early hazard detection in batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16246-16264.	5.2	38
93	Light, Force, and Heat: A Multi-Stimuli Composite that Reveals its Violent Past. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 38000-38007.	4.0	37
94	Self-Assembled Nanowire Networks by Deposition of Copper onto Layered-Crystal Surfaces. <i>Advanced Materials</i> , 2002, 14, 1056.	11.1	36
95	Tuning the threshold voltage of organic field-effect transistors by an electret encapsulating layer. <i>Applied Physics Letters</i> , 2007, 90, 013501.	1.5	36
96	Tuning doping and surface functionalization of columnar oxide films for volatile organic compound sensing: experiments and theory. <i>Journal of Materials Chemistry A</i> , 2018, 6, 23669-23682.	5.2	36
97	Single CuO/Cu ₂ O/Cu Microwire Covered by a Nanowire Network as a Gas Sensor for the Detection of Battery Hazards. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42248-42263.	4.0	36
98	Stretchable CNTs/Ecoflex Composite as Variable-Transmittance Skin for Ultrasensitive Strain Sensing. <i>Advanced Materials Technologies</i> , 2018, 3, 1800248.	3.0	35
99	Optically Controlled Abnormal Photovoltaic Current Modulation with Temperature in BiFeO ₃ . <i>Advanced Electronic Materials</i> , 2019, 5, 1800791.	2.6	35
100	Challenges and Solutions for Joining Polymer Materials. <i>Macromolecular Rapid Communications</i> , 2014, 35, 1551-1570.	2.0	34
101	Biaxial flexural strength of new Bis-GMA/TEGDMA based composites with different fillers for dental applications. <i>Dental Materials</i> , 2016, 32, 1073-1078.	1.6	34
102	Properties of a single SnO ₂ :Zn ₂ SnO ₄ " Functionalized nanowire based nanosensor. <i>Ceramics International</i> , 2018, 44, 4859-4867.	2.3	34
103	Pd-Functionalized ZnO:Eu Columnar Films for Room-Temperature Hydrogen Gas Sensing: A Combined Experimental and Computational Approach. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24951-24964.	4.0	34
104	Radiotracer measurements as a sensitive tool for the detection of metal penetration in molecular-based organic electronics. <i>Applied Physics Letters</i> , 2005, 86, 024104.	1.5	33
105	Functionalized Pd/ZnO Nanowires for Nanosensors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1700321.	1.2	33
106	Three-Dimensional Tetrapodal ZnO Microstructured Network Based Flexible Surface Acoustic Wave Device for Ultraviolet and Respiration Monitoring Applications. <i>ACS Applied Nano Materials</i> , 2020, 3, 1468-1478.	2.4	33
107	Investigation of optical properties and electronic transitions in bulk and nano-microribbons of molybdenum trioxide. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 085302.	1.3	32
108	Nanomechanics of individual aerographite tetrapods. <i>Nature Communications</i> , 2017, 8, 14982.	5.8	32

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109	Schottky Diode Based on a Single Carbon Nanotube/ZnO Hybrid Tetrapod for Selective Sensing Applications. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700507.	1.9	32
110	Morphology dependent UV photoresponse of Sn-doped ZnO microstructures. <i>Solid State Sciences</i> , 2017, 71, 75-86.	1.5	32
111	Bioactive Carbon-Based Hybrid 3D Scaffolds for Osteoblast Growth. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 43874-43886.	4.0	32
112	Piezotronic sensors. <i>MRS Bulletin</i> , 2018, 43, 941-945.	1.7	32
113	Self-Assembled Monolayers of Benzylmercaptan and <i>p</i> -Cyanobenzylmercaptan on Au(111) Surfaces: Structural and Spectroscopic Characterization. <i>Langmuir</i> , 2008, 24, 5726-5733.	1.6	31
114	Fracture, failure and compression behaviour of a 3D interconnected carbon aerogel (Aerographite) epoxy composite. <i>Composites Science and Technology</i> , 2016, 122, 50-58.	3.8	31
115	Superposition twinning supported by texture in ZnO nanospikes. <i>Journal of Applied Crystallography</i> , 2013, 46, 396-403.	1.9	30
116	UV detection properties of hybrid ZnO tetrapod 3-D networks. <i>Vacuum</i> , 2017, 146, 492-500.	1.6	30
117	Ultra-thin TiO ₂ films by atomic layer deposition and surface functionalization with Au nanodots for sensing applications. <i>Materials Science in Semiconductor Processing</i> , 2018, 87, 44-53.	1.9	30
118	Wet-Chemical Assembly of 2D Nanomaterials into Lightweight, Microtube-Shaped, and Macroscopic 3D Networks. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 44652-44663.	4.0	30
119	Model Systems with Extreme Aspect Ratio, Tunable Geometry, and Surface Functionality for a Quantitative Investigation of the Lotus Effect. <i>Langmuir</i> , 2007, 23, 2091-2094.	1.6	29
120	Development and Characterization of Mechanically Durable Silicone-Polythiourethane Composites Modified with Tetrapodal Shaped ZnO Particles for the Potential Application as Fouling-Release Coating in the Marine Sector. <i>Materials</i> , 2018, 11, 2413.	1.3	29
121	Microengineered Hollow Graphene Tube Systems Generate Conductive Hydrogels with Extremely Low Filler Concentration. <i>Nano Letters</i> , 2021, 21, 3690-3697.	4.5	29
122	Size-dependent UV and gas sensing response of individual Fe ₂ O ₃ -ZnO:Fe micro- and nanowire based devices. <i>Journal of Alloys and Compounds</i> , 2017, 701, 920-925.	2.8	28
123	Valence and conduction band states of HfS ₂ : From bulk to a single layer. <i>Physical Review B</i> , 2003, 68, .	1.1	27
124	Self-reporting mechanochromic coating: a glassfiber reinforced polymer composite that predicts impact induced damage. <i>Materials Horizons</i> , 2020, 7, 598-604.	6.4	27
125	Individual hollow and mesoporous aero-graphitic microtube based devices for gas sensing applications. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	26
126	Light-Mediated Growth of Noble Metal Nanostructures (Au, Ag, Cu, Pt, Pd, Ru, Ir, Rh) From Micro- and Nanoscale ZnO Tetrapodal Backbones. <i>Frontiers in Chemistry</i> , 2018, 6, 411.	1.8	26

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127	Self-organized and self-propelled aero-GaN with dual hydrophilic-hydrophobic behaviour. Nano Energy, 2019, 56, 759-769.	8.2	26
128	Nanowire networks on perfectly flat surfaces. Applied Physics Letters, 1999, 74, 3053-3055.	1.5	24
129	Integration of Thin-Film-Fracture-Based Nanowires into Microchip Fabrication. Small, 2008, 4, 2214-2221.	5.2	24
130	Biomimetic Carbon Fiber Systems Engineering: A Modular Design Strategy To Generate Biofunctional Composites from Graphene and Carbon Nanofibers. ACS Applied Materials & Interfaces, 2019, 11, 5325-5335.	4.0	24
131	Improved Long-Term Stability and Reduced Humidity Effect in Gas Sensing: SiO ₂ Ultra-Thin Layered ZnO Columnar Films. Advanced Materials Technologies, 2021, 6, 2001137.	3.0	24
132	A Tunable Scaffold of Microtubular Graphite for 3D Cell Growth. ACS Applied Materials & Interfaces, 2016, 8, 14980-14985.	4.0	23
133	The effect of morphology and functionalization on UV detection properties of ZnO networked tetrapods and single nanowires. Vacuum, 2019, 166, 393-398.	1.6	22
134	Tailoring the selectivity of ultralow-power heterojunction gas sensors by noble metal nanoparticle functionalization. Nano Energy, 2021, 88, 106241.	8.2	21
135	Tuning Dimensionality by Nanowire Adsorption on Layered Materials. Physical Review Letters, 2001, 86, 1303-1306.	2.9	20
136	The impact of O ₂ /Ar ratio on morphology and functional properties in reactive sputtering of metal oxide thin films. Nanotechnology, 2019, 30, 235603.	1.3	20
137	Employing Thin-Film Delamination for the Formation of Shadow Masks for Nanostructure Fabrication. Advanced Materials, 2006, 18, 1059-1062.	11.1	19
138	Piezotronic-based magnetoelectric sensor: Fabrication and response. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2208-2215.	0.8	19
139	Making metal surfaces strong, resistant, and multifunctional by nanoscale-sculpturing. Nanoscale Horizons, 2016, 1, 467-472.	4.1	19
140	Fundamentals of the temperature-dependent electrical conductivity of a 3D carbon foam Aerographite. Synthetic Metals, 2018, 235, 145-152.	2.1	19
141	UV nanophotodetectors: A case study of individual Au-modified ZnO nanowires. Sensors and Actuators A: Physical, 2019, 296, 400-408.	2.0	19
142	Effect of noble metal functionalization and film thickness on sensing properties of sprayed TiO ₂ ultra-thin films. Sensors and Actuators A: Physical, 2019, 293, 242-258.	2.0	19
143	Concept and modelling of memsensors as two terminal devices with enhanced capabilities in neuromorphic engineering. Scientific Reports, 2019, 9, 4361.	1.6	19
144	3D Hydrogels Containing Interconnected Microchannels of Subcellular Size for Capturing Human Pathogenic <i>Acanthamoeba Castellanii</i> . ACS Biomaterials Science and Engineering, 2019, 5, 1784-1792.	2.6	19

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145	Solvent Free Fabrication of Micro and Nanostructured Drug Coatings by Thermal Evaporation for Controlled Release and Increased Effects. PLoS ONE, 2012, 7, e40746.	1.1	18
146	Self-Organized Three-Dimensional Nanostructured Architectures in Bulk GaN Generated by Spatial Modulation of Doping. ECS Journal of Solid State Science and Technology, 2016, 5, P218-P227.	0.9	18
147	Probing surface states in C ₆₀ decorated ZnO microwires: detailed photoluminescence and cathodoluminescence investigations. Nanoscale Advances, 2019, 1, 1516-1526.	2.2	18
148	Advanced Hybrid GaN/ZnO Nanoarchitected Microtubes for Fluorescent Micromotors Driven by UV Light. Small, 2020, 16, 1905141.	5.2	18
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150	Self-assembled nanowire formation during Cu deposition on atomically flat Vse ₂ surfaces studied by microscopic methods. Materials Science and Engineering C, 2003, 23, 171-179.	3.8	17
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