Jeganathan Kulandaivel

List of Publications by Year
in descending order

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101 papers	3,138 citations	201674 27 h-index	182427 51 g-index
102 all docs	102 docs citations	102 times ranked	4915 citing authors

#	Article	IF	Citations
1	Plant extract mediated synthesis of silver and gold nanoparticles and its antibacterial activity against clinically isolated pathogens. Colloids and Surfaces B: Biointerfaces, 2011, 85, 360-365.	5.0	712
2	High performance, self-powered photodetectors based on a graphene/silicon Schottky junction diode. Journal of Materials Chemistry C, 2018, 6, 9545-9551.	5.5	126
3	A facile hydrothermal synthesis of SrTiO3 for dye sensitized solar cell application. Journal of Alloys and Compounds, 2014, 586, 456-461.	5.5	111
4	Vertically aligned MoS₂ nanosheets on graphene for highly stable electrocatalytic hydrogen evolution reactions. Nanoscale, 2019, 11, 2439-2446.	5.6	100
5	Raman scattering of phonon-plasmon coupled modes in self-assembled GaN nanowires. Journal of Applied Physics, 2009, 105, .	2.5	91
6	Doxorubicin conjugated gold nanorods: a sustained drug delivery carrier for improved anticancer therapy. Journal of Materials Chemistry B, 2013, 1, 1010-1018.	5.8	91
7	Facile synthesis of WO₃ with reduced particle size on zeolite and enhanced photocatalytic activity. RSC Advances, 2014, 4, 21221-21229.	3.6	74
8	Electrical, optical and structural properties of aluminum doped cadmium oxide thin films prepared by spray pyrolysis technique. Materials Chemistry and Physics, 2010, 122, 444-448.	4.0	67
9	Point defects assisted NH3 gas sensing properties in ZnO nanostructures. Sensors and Actuators B: Chemical, 2015, 212, 10-17.	7.8	58
10	Synthesis and characterization of BiVO₄ nanoparticles for environmental applications. RSC Advances, 2020, 10, 18315-18322.	3.6	58
11	Lattice-matched InAlN/GaN two-dimensional electron gas with high mobility and sheet carrier density by plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 2007, 304, 342-345.	1.5	53
12	Role of deoxy group on the high concentration of graphene in surfactant/water media. RSC Advances, 2013, 3, 2369.	3.6	50
13	Investigation on the effect of Zr doping in ZnO thin films by spray pyrolysis. Applied Surface Science, 2011, 257, 9068-9072.	6.1	49
14	Role of point defects on the enhancement of room temperature ferromagnetism in ZnO nanorods. CrystEngComm, 2012, 14, 4713.	2.6	49
15	Investigations on the structural, optical and electrical properties of Nb-doped SnO2 thin films. Journal of Materials Science, 2011, 46, 5553-5558.	3.7	48
16	Electrical transport properties of single undoped and n-type doped InN nanowires. Nanotechnology, 2009, 20, 405206.	2.6	46
17	Highly Efficient and Stable Photoelectrochemical Hydrogen Evolution with 2D-NbS₂/Si Nanowire Heterojunction. ACS Applied Materials & Interfaces, 2019, 11, 44179-44185.	8.0	39
18	Interplay of VLS and VS growth mechanism for GaN nanowires by a self-catalytic approach. RSC Advances, 2012, 2, 4802.	3.6	35

#	Article	IF	Citations
19	Probing the electron density in undoped, Si-doped, and Mg-doped InN nanowires by means of Raman scattering. Applied Physics Letters, 2010, 97, .	3.3	34
20	Co-delivery of Diverse Therapeutic Compounds Using PEGâ€“PLGA Nanoparticle Cargo against Drug-Resistant Bacteria: An Improved Anti-biofilm Strategy. ACS Applied Bio Materials, 2020, 3, 385-399.	4.6	34
21	Improvement of film quality using Si-doping in AlGaN/GaN heterostructure grown by plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 2002, 245, 15-20.	1.5	33
22	Post-annealing effects on the structural and optical properties of vertically aligned undoped ZnO nanorods grown by radio frequency magnetron sputtering. RSC Advances, 2014, 4, 5030.	3.6	33
23	Vertically aligned indium doped zinc oxide nanorods for the application of nanostructured anodes by radio frequency magnetron sputtering. CrystEngComm, 2012, 14, 3907.	2.6	29
24	Structural Evolution and Growth Mechanism of Self-Assembled Wurtzite Gallium Nitride (GaN) Nanostructures by Chemical Vapor Deposition. Journal of Physical Chemistry C, 2013, 117, 7348-7357.	3.1	29
25	Surface engineered Amphora subtropica frustules using chitosan as a drug delivery platform for anticancer therapy. Materials Science and Engineering C, 2019, 94, 56-64.	7.3	29
26	Investigations on the growth and characterization of vertically aligned zinc oxide nanowires by radio frequency magnetronsputtering. Journal of Solid State Chemistry, 2013, 200, 84-89.	2.9	28
27	Improved hole injection in organic light emitting devices by gold nanoparticles. RSC Advances, 2015, 5, 684-689.	3.6	28
28	Facile fabrication of silicon nanowires as photocathode for visible-light induced photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2017, 42, 22671-22676.	7.1	28
29	Hierarchical NbS₂/MoS₂-Carbon Nanofiber Electrode for Highly Efficient and Stable Hydrogen Evolution Reaction at All Ranges of pH. ACS Applied Energy Materials, 2020, 3, 6717-6725.	5.1	28
30	Hole injection enhancement in organic light emitting devices using plasma treated graphene oxide. Applied Surface Science, 2017, 397, 144-151.	6.1	27
31	Multiband InGaN nanowires with enhanced visible photon absorption for efficient photoelectrochemical water splitting. Journal of Power Sources, 2017, 337, 130-136.	7.8	27
32	Stable and highly efficient MoS2/Si NWs hybrid heterostructure for photoelectrocatalytic hydrogen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 1793-1801.	7.1	27
33	Chitosan Based Nanocomposite Materials as Photocatalyst â€“ A Review. Materials Science Forum, 0, 781, 79-94.	0.3	26
34	Far-field and hole injection enhancement by noble metal nanoparticles in organic light emitting devices. Synthetic Metals, 2016, 211, 155-160.	3.9	26
35	Effect of annealing on the electrical, optical and structural properties of cadmium stannate thin films prepared by spray pyrolysis technique. Thin Solid Films, 2010, 518, 2271-2274.	1.8	25
36	Structural and optical properties of GaN and InGaN nanoparticles by chemical co-precipitation method. Materials Research Bulletin, 2012, 47, 3323-3329.	5.2	25

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37	Local electronic structure of ZnO nanorods grown by radio frequency magnetron sputtering. Materials Letters, 2014, 116, 206-208.	2.6	24
38	Transition metal doped MoS2 nanosheets for electrocatalytic hydrogen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 37256-37263.	7.1	24
39	SrTiO₃ NPs/g-C₃N₄ NSs Coupled Si NWs based Hybrid Photocathode for Visible Light Driven Photoelectrochemical Water Reduction. ACS Sustainable Chemistry and Engineering, 2019, 7, 13911-13919.	6.7	23
40	Bi2S3 anchored ZnS/ZnO nanorod arrays photoanode for enhanced visible light driven photo electrochemical properties. International Journal of Hydrogen Energy, 2020, 45, 30080-30090.	7.1	23
41	The effect of nitridation temperature on the structural, optical and electrical properties of GaN nanoparticles. CrystEngComm, 2014, 16, 3584-3591.	2.6	21
42	Raman silent modes in vertically aligned undoped ZnO nanorods. Physica B: Condensed Matter, 2016, 481, 204-208.	2.7	21
43	CdS and CdSe nanoparticles activated 1D TiO2 heterostructure nanoarray photoelectrodes for enhanced photoelectrocatalytic water splitting. International Journal of Hydrogen Energy, 2021, 46, 26381-26390.	7.1	21
44	Formation of GaN nanodots on Si (111) by droplet nitridation. Journal of Crystal Growth, 2009, 311, 3389-3394.	1.5	20
45	Solar, visible and UV light photocatalytic activity of CoWO₄for the decolourization of methyl orange. Desalination and Water Treatment, 2015, 54, 3134-3145.	1.0	20
46	g-C3N4 nanosheets functionalized silicon nanowires hybrid photocathode for efficient visible light induced photoelectrochemical water reduction. Journal of Power Sources, 2019, 413, 293-301.	7.8	20
47	Ni-catalysed WO3 nanostructures grown by electron beam rapid thermal annealing for NO2 gas sensing. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	19
48	Promoter-free synthesis of monolayer MoS₂ by chemical vapour deposition. CrystEngComm, 2018, 20, 4249-4257.	2.6	19
49	Control of GaN surface morphologies grown on 6H-SiC (0001) using plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 2002, 244, 33-38.	1.5	18
50	Controlled and Selective Area Growth of Monolayer Graphene on 4H-SiC Substrate by Electron-Beam-Assisted Rapid Heating. Journal of Physical Chemistry C, 2013, 117, 19195-19202.	3.1	18
51	Tuning a Schottky barrier of epitaxial graphene/4H-SiC (0001) by hydrogen intercalation. Applied Physics Letters, 2016, 108, .	3.3	18
52	The effect of Gallium gallium adsorbate on SiC(0001) surface for GaN by MBE. Physica Status Solidi (B): Basic Research, 2003, 240, 326-329.	1.5	17
53	Raman scattering on intrinsic surface electron accumulation of InN nanowires. Applied Physics Letters, 2010, 97, .	3.3	17
54	Whiskered GaN nanowires by self-induced VLS approach using chemical vapor deposition. CrystEngComm, 2012, 14, 8390.	2.6	17

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55	Sensitive and label-free shell isolated Ag NPs@Si architecture based SERS active substrate: FDTD analysis and in-situ cellular DNA detection. Applied Surface Science, 2020, 515, 145955.	6.1	17
56	Initial stage of GaN nucleation on 30Â°-Ga reconstructed 4H-SiC()Si by molecular-beam epitaxy. Surface Science, 2003, 527, L197-L202.	1.9	16
57	GaN nanowires grown by halide chemical vapour deposition as photoanodes for photo-electrochemical water oxidation reactions. Nanotechnology, 2020, 31, 425405.	2.6	16
58	High Quality GaAs Epitaxial Layers Grown from Gaâ€“Asâ€“Bi Solutions by Liquid Phase Epitaxy. Japanese Journal of Applied Physics, 1997, 36, 3385-3388.	1.5	15
59	Investigations on the role of Ni-catalyst for the VLS growth of quasi-aligned GaN nanowires by chemical vapor deposition. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	15
60	Investigations on the morphological evolution of zinc oxide nanostructures and their optical properties. CrystEngComm, 2014, 16, 7426.	2.6	15
61	Two-dimensional electron gases induced by polarization charges in AlN/GaN heterostructure grown by plasma-assisted molecular-beam epitaxy. Journal of Applied Physics, 2003, 94, 3260-3263.	2.5	14
62	Effect of vacuum annealing on the structural, optical, and electrical properties of sprayâ€deposited Gaâ€doped ZnO thin films. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1481-1486.	1.8	14
63	Investigations on the concentration profiles of arsenic atoms during liquid phase epitaxial growth of GaAs from Ga-As-Bi solution. Materials Chemistry and Physics, 1997, 49, 141-145.	4.0	13
64	Investigation of Molybdenum Doped ZnO Thin Films Prepared by Spray Pyrolysis Technique. Ferroelectrics, 2011, 423, 126-134.	0.6	11
65	Structural, Optical, and Electrical Properties of Nb-Doped ZnO Thin Films Prepared by Spray Pyrolysis Method. Journal of Electronic Materials, 2011, 40, 2382-2387.	2.2	11
66	Selective area growth of Bernal bilayer epitaxial graphene on 4H-SiC (0001) substrate by electron-beam irradiation. Applied Physics Letters, 2014, 105, 181601.	3.3	11
67	Crystal growth of high quality hybrid GaAs heteroepitaxial layers on Si substrate by metalorganic chemical vapor deposition and liquid phase epitaxy. Journal of Crystal Growth, 1998, 192, 23-27.	1.5	10
68	Self-assembled tungsten oxide nanowires by electron beam assisted rapid thermal annealing. Materials Letters, 2011, 65, 1941-1944.	2.6	10
69	Properties of uniform diameter InN nanowires obtained under Si doping. Nanotechnology, 2011, 22, 125704.	2.6	10
70	Investigations on the growth and optical properties of one dimensional ZnO nanostructures grown by radio frequency magnetron sputter deposition. Materials Research Bulletin, 2013, 48, 3811-3816.	5.2	10
71	Functional evaluation of doxorubicin decorated polymeric liposomal curcumin: a surface tailored therapeutic platform for combination chemotherapy. New Journal of Chemistry, 2018, 42, 16608-16619.	2.8	10
72	Improved performance of graphene oxide based resistive memory devices through hydrogen plasma. Materials Letters, 2018, 232, 62-65.	2.6	10

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73	The degree of supersaturation dependent ZnO nano/micro rod arrays thin films growth using chemical bath deposition and hydrothermal methods. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 106, 50-56.	2.7	10
74	Sustained Solar-Powered Electrocatalytic H₂ Production by Seawater Splitting Using Two-Dimensional Vanadium Disulfide. ACS Sustainable Chemistry and Engineering, 2021, 9, 8572-8580.	6.7	10
75	On the Bismuth Composition Dependent Concentration of Arsenic Atoms during LPE Growth of GaAs Layers from Gaâ€“Asâ€“Bi Solution. Physica Status Solidi A, 1998, 165, 437-443.	1.7	9
76	Investigations on the growth of manifold morphologies and optical properties of ZnO nanostructures grown by radio frequency magnetron sputtering. AIP Advances, 2013, 3, 082133.	1.3	9
77	Importance of growth temperature on achieving lattice-matched and strained InAlN/GaN heterostructure by plasma-assisted molecular beam epitaxy. AIP Advances, 2014, 4, .	1.3	8
78	Ferromagnetism in undoped One-dimensional GaN Nanowires. AIP Advances, 2014, 4, .	1.3	8
79	Direct comparison on the structural and optical properties of metal-catalytic and self-catalytic assisted gallium nitride (GaN) nanowires by chemical vapor deposition. RSC Advances, 2014, 4, 45100-45108.	3.6	8
80	Role of surface functionalization in ZnO:Fe nanostructures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 183, 39-46.	3.5	8
81	Direct growth of few layer graphene on SiO₂ substrate by low energy carbon ion implantation. RSC Advances, 2016, 6, 101347-101352.	3.6	8
82	Catalyst-assisted growth of InGaN NWs for photoelectrochemical water-splitting applications. Ionics, 2020, 26, 3465-3472.	2.4	8
83	Dynamically stable gallium-induced 3Ã—3-SiC (0001) surface for two-dimensional GaN nucleation by molecular-beam epitaxy. Journal of Applied Physics, 2004, 95, 3761-3764.	2.5	7
84	Photocatalytic dye degradation properties of wafer level GaN nanowires by catalytic and self-catalytic approach using chemical vapor deposition. RSC Advances, 2014, 4, 25569-25575.	3.6	7
85	Acid-free co-operative self-assembly of graphene-ZnO nanocomposites and its defect mediated visible light photocatalytic activities. Physica B: Condensed Matter, 2017, 506, 32-41.	2.7	7
86	Bright blue cooperative upconversion emission of Yb 3+ from langbeinite K 2 Ti 1.887 Yb 0.113 (PO 4) 3 single crystal. Materials Letters, 2017, 188, 399-402.	2.6	7
87	Reduction of dislocations in GaN epilayers using templated three-dimensional coherent nanoislands. Applied Physics Letters, 2005, 86, 191908.	3.3	6
88	Folate-engineered mesoporous silica-encapsulated copper (II) complex [Cu(L)(dppz)]+: An active targeting cell-specific platform for breast cancer therapy. Inorganica Chimica Acta, 2020, 510, 119783.	2.4	6
89	Topotactic transition of Pb0.99Bi0.01I2 into CH3NH3Pb0.99Bi0.01I3 on TiO2 for high-performance visible light perovskite photodetector. Materials Letters, 2020, 276, 128155.	2.6	6
90	Micro-Raman investigations of InN-GaN core-shell nanowires on Si (111) substrate. AIP Advances, 2013, 3, 062114.	1.3	5

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91	Size-dependent surface potential of Si-doped InN nanorods and the role of inhomogeneous free-electron distribution. Journal of Applied Physics, 2019, 125, .	2.5	5
92	VS2 wrapped Si nanowires as core-shell heterostructure photocathode for highly efficient photoelectrochemical water reduction performance. Chemosphere, 2022, 302, 134708.	8.2	5
93	Effect of bismuth on liquid-phase epitaxy (LPE) grown GaAs layer using Gaâ€“Asâ€“Bi melt. Journal of Crystal Growth, 1999, 200, 341-347.	1.5	4
94	Structural characterisation of remelt liquid phase epitaxy (LPE) grown AlGaAs heteroepitaxial layer. Journal of Crystal Growth, 1999, 203, 327-332.	1.5	4
95	Investigations on the undersaturated liquid phase epitaxial growth of AlxGa1â^'xAs. Journal of Crystal Growth, 2000, 212, 29-34.	1.5	4
96	2DEG Characteristics of AlN/GaN Heterointerface on Sapphire Substrates Grown by Plasma-Assisted MBE. Physica Status Solidi (B): Basic Research, 2001, 228, 613-616.	1.5	4
97	Surface defects impeded excitons in Alq3 based hetero junction OLEDs. Applied Surface Science, 2013, 268, 323-326.	6.1	4
98	Structural and magnetic properties of nickel catalyzed-tungsten oxide nanosheets synthesized using e-beam rapid thermal annealing. Materials Chemistry and Physics, 2012, 137, 264-269.	4.0	3
99	Characterizations and analysis of genus Amphora diatom frustules: a promising biomaterial. Bioinspired, Biomimetic and Nanobiomaterials, 2019, 8, 224-230.	0.9	3
100	Investigations on the estimation of arsenic atoms and growth of GaAs epitaxial layers from bismuth solution. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 58, 229-233.	3.5	2
101	Influence of low energy Ar-ion bombardment on monolayer Ni/W(100). Physica E: Low-Dimensional Systems and Nanostructures, 2014, 56, 337-341.	2.7	1