

Debajyoti Das

List of Publications by Year in descending order

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169
papers

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citations

109137

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times ranked

2091
citing authors

#	ARTICLE	IF	CITATIONS
1	ZnO/CdS/CuS heterostructure: A suitable candidate for applications in visible-light photocatalysis. Journal of Physics and Chemistry of Solids, 2022, 160, 110344.	1.9	41
2	Effect of HF wet-etching and H ₂ -plasma polishing on the low-temperature growth of carbon nanotubes on stainless-steel substrates. Journal of Physics and Chemistry of Solids, 2022, 160, 110307.	1.9	4
3	Synthesis of nanocrystalline diamond embedded diamond-like carbon films on untreated glass substrates at low temperature using (C ₂ H ₂ +H ₂) gas composition in microwave plasma CVD. Applied Surface Science, 2022, 579, 152132.	3.1	17
4	Room temperature synthesized highly conducting B-doped nanocrystalline silicon thin films on flexible polymer substrates by ICP-CVD. Applied Surface Science, 2022, 583, 152499.	3.1	1
5	Spectroscopic studies of low-temperature synthesized nanocrystalline silicon oxy-carbide thin films. Materials Today: Proceedings, 2022, , .	0.9	0
6	The effect of CO ₂ addition to the (C ₂ H ₂ +H ₂) gas system on the low-temperature growth of diamond-like carbon (DLC) with prominent nano-diamond phase. Materials Today: Proceedings, 2022, 62, 5057-5060.	0.9	1
7	Growth of Nanostructured Diamond Films on Glass Substrates by Low-Temperature Microwave Plasma-Enhanced Chemical Vapor Deposition for Applications in Nanotribology. ACS Applied Nano Materials, 2022, 5, 3558-3571.	2.4	5
8	Ag ₂ O Decorated ZnO Nanorods Demonstrating Two-Step Visible-Light Photocatalytic Dye-Degradation Phenomena. IOP Conference Series: Materials Science and Engineering, 2022, 1221, 012047.	0.3	0
9	Preparation of boron doped diamond-like carbon films in a low-pressure high-density plasma in RF ICP-CVD. Materials Today: Proceedings, 2022, 62, 5105-5109.	0.9	1
10	Correlation of microstructure factor with the electronic properties of nanocrystalline silicon-germanium thin films. Materials Today: Proceedings, 2022, , .	0.9	0
11	Intrinsic, P-doped and B-doped nanocrystalline silicon thin films grown at room temperature on flexible substrates for photovoltaic applications. Materials Today: Proceedings, 2022, , .	0.9	0
12	Synthesis and characterization of organic ligand capped luminescent silicon nanoparticles. Materials Today: Proceedings, 2022, , .	0.9	1
13	Diamond-Like Carbon Thin Films from Low-Pressure and High-Density CH ₄ Plasma. IOP Conference Series: Materials Science and Engineering, 2022, 1221, 012037.	0.3	0
14	Two-Step Visible Light Photocatalytic Dye Degradation Phenomena in Ag ₂ O-Impregnated ZnO Nanorods via Growth of Metallic Ag and Formation of ZnO/Ag ⁰ /Ag ₂ O Heterojunction Structures. Langmuir, 2022, 38, 4503-4520.	1.6	17
15	Growth of diamond-like carbon films with significant nanocrystalline phases in a low-pressure high-density CH ₄ plasma in ICP-CVD: Effect of negative dc substrate bias. Applied Surface Science, 2022, 596, 153638.	3.1	2
16	Optimal H ₂ -dilution playing key role in accomplishing significant nanocrystallinity with both Si and Ge moieties in SiGe nanocomposite thin film network. Applied Surface Science, 2022, 597, 153657.	3.1	3
17	Morphological variations of ZnO nanostructures and its influence on the photovoltaic performance when used as photoanodes in dye sensitized solar cells. Solar Energy Materials and Solar Cells, 2022, 243, 111811.	3.0	19
18	Structural characteristics, impedance spectroscopy, ac-conductivity and dielectric loss studies on RF-magnetron sputtered F doped ZnO (FZO) thin films. Ceramics International, 2022, 48, 31370-31380.	2.3	1

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19	Prominent c-axis oriented Si-doped ZnO thin film prepared at low substrate temperature in RF magnetron sputtering and its UV sensing in p-Si/n-SZO heterojunction structures. Journal of Physics and Chemistry of Solids, 2021, 151, 109907.	1.9	6
20	Wide optical gap B-doped nc-Si thin films with advanced crystallinity and conductivity on transparent flexible substrates for potential low-cost flexible electronics including nc-Si superstrate p-n solar cells. Materials Advances, 2021, 2, 2055-2067.	2.6	16
21	Reduced Graphene Oxide-Laminated One-Dimensional TiO ₂ "Bronze Nanowire Composite: An Efficient Photoanode Material for Dye-Sensitized Solar Cells. ACS Omega, 2021, 6, 4362-4373.	1.6	34
22	Low-temperature synthesis of conducting boron-doped nanocrystalline silicon oxide thin films as the window layer of solar cells. Current Applied Physics, 2021, 23, 42-51.	1.1	2
23	Reverse Meyer-Neldel rule prevailing in the hole transport of B-doped nc-SiO _x :H thin films sustaining degeneracy and performing as suitable window of nc-Si solar cells. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 128, 114615.	1.3	10
24	Complex Dielectric Characteristics, ac-Conductivity, and Impedance Spectroscopy of B-Doped nc-SiO _x :H Thin Films. ACS Applied Electronic Materials, 2021, 3, 1634-1647.	2.0	10
25	CdS Q-Dot-Impregnated TiO ₂ -B Nanowire-Based Photoanodes for Efficient Photovoltaic Conversion in Q-Dot Co-sensitized DSSC™. Energy & Fuels, 2021, 35, 8246-8262.	2.5	17
26	Synthesis of single-walled, bamboo-shaped and Y-junction carbon nanotubes using microwave plasma CVD on low-temperature and chemically processed catalysts. Journal of Physics and Chemistry of Solids, 2021, 152, 109971.	1.9	7
27	Optoelectronic and structural properties of Ge-rich narrow band gap nc-Si _x Ge _{1-x} absorber layer for tandem structure nc-Si solar cells. Journal of Physics and Chemistry of Solids, 2021, 154, 110055.	1.9	6
28	Graphitic carbon nitride (g-C ₃ N ₄) incorporated TiO ₂ :B nanowires as efficient photoanode material in dye sensitized solar cells. Materials Chemistry and Physics, 2021, 266, 124520.	2.0	19
29	Phosphorus-doped nanocrystalline silicon-oxycarbide thin films. Journal of Alloys and Compounds, 2021, 876, 160094.	2.8	8
30	Frequency and temperature dependent electrical characteristics of P-doped nc-SiO _x :H thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 272, 115361.	1.7	2
31	Maintaining superior crystallinity and conductivity in boron-doped nc-Si ultra-thin films by hydrogen plasma treatment. Journal of Physics and Chemistry of Solids, 2021, 157, 110199.	1.9	1
32	Synthesis of CdS/GO modified ZnO heterostructure for visible light dye degradation applications. Applied Surface Science, 2021, 570, 151260.	3.1	18
33	Improved TCO characteristics of ZnO:Si films via utilization of Si ⁴⁺ ionized donor states and its application in n-SZO/p-Si heterojunction solar cells. Solar Energy Materials and Solar Cells, 2020, 206, 110278.	3.0	20
34	Advanced nanocrystallinity with widened optical gap realized via microstructural control in P-doped silicon oxide thin films used as window layer in nc-Si solar cells. Materials Chemistry and Physics, 2020, 243, 122628.	2.0	14
35	Narrow band gap reduced TiO ₂ :B:Cu nanowire heterostructures for efficient visible light absorption, charge separation and photocatalytic degradation. Applied Surface Science, 2020, 506, 144880.	3.1	29
36	Controlling superior crystallinity and conductivity in ultra-thin doped nc-Si layers via H ₂ -plasma treatment for applications in nc-Si/c-Si heterojunction solar cells. AIP Conference Proceedings, 2020, ,	0.3	0

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37	Low temperature growth of highly conducting boron doped nc-Si thin films on flexible substrates. AIP Conference Proceedings, 2020, , .	0.3	0
38	Vertically aligned silicon nanowire arrays prepared by silver assisted single step chemical etching. AIP Conference Proceedings, 2020, , .	0.3	1
39	Single-step fabrication of single-junction c-Si nano-structured solar cells by optimization of plasma etching parameters. Journal of Alloys and Compounds, 2020, 847, 155352.	2.8	3
40	Ternary ZnCdSO composite photocatalyst for efficient dye degradation under visible light retaining Z-scheme of migration pathways for the photogenerated charge carriers. Solar Energy Materials and Solar Cells, 2020, 217, 110674.	3.0	24
41	Low temperature growth of a-Si/nc-Si superlattice thin films demonstrating enhanced optical absorption. AIP Conference Proceedings, 2020, , .	0.3	1
42	Biocompatible implant mimicking cartilage: A new horizon for reconstructive facial field. Artificial Organs, 2020, 44, E494-E508.	1.0	0
43	Autogenic single p/n-junction solar cells from black-Si nano-grass structures of p-to-n type self-converted electronic configuration. Nanoscale, 2020, 12, 15371-15382.	2.8	20
44	Effect of Si incorporation to produce Ge-rich nc-Si _x Ge _{1-x} absorber layer for nc-Si solar cells. AIP Conference Proceedings, 2020, , .	0.3	0
45	Synthesis of cost-effective g-C ₃ N ₄ /ZnO heterostructure photocatalyst for methyl orange (MO) dye degradation. AIP Conference Proceedings, 2020, , .	0.3	1
46	ZnO-Cu O heterostructure photocatalyst for efficient dye degradation. Journal of Physics and Chemistry of Solids, 2020, 143, 109463.	1.9	46
47	Synthesis of diameter controlled multiwall carbon nanotubes by microwave plasma-CVD on low-temperature and chemically processed Fe nanoparticle catalysts. Applied Surface Science, 2020, 515, 146043.	3.1	31
48	Optimization of Si doping in ZnO thin films and fabrication of n-ZnO:Si/p-Si heterojunction solar cells. Journal of Alloys and Compounds, 2020, 824, 153902.	2.8	45
49	Evolution of nanocrystalline diamond thin films by high-density low-pressure CH ₄ plasma in planar inductively coupled plasma CVD. AIP Conference Proceedings, 2020, , .	0.3	1
50	Synthesis and characterization of silica encapsulated magnetite nanoparticles. AIP Conference Proceedings, 2020, , .	0.3	1
51	Narrow band gap high conducting nc-Si _{1-x} Gex:H absorber layers for tandem structure nc-Si solar cells. Journal of Alloys and Compounds, 2019, 806, 1529-1535.	2.8	14
52	Minimization of Reflection-Loss from Etched Nano-structures of Silicon Crystal Wafers. Materials Today: Proceedings, 2019, 18, 1324-1328.	0.9	0
53	Superior photocatalytic dye degradation under visible light by reduced graphene oxide laminated TiO ₂ -B nanowire composite. Journal of Environmental Chemical Engineering, 2019, 7, 103358.	3.3	37
54	Growth of Multiwall Carbon Nanotubes at 300Â°C Using CO ₂ as a Weak Oxidant to (CH ₄ +H ₂) Microwave Plasma. Materials Today: Proceedings, 2019, 18, 1411-1415.	0.9	3

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55	Electrically active boron doping in the core of Si nanocrystals by planar inductively coupled plasma CVD. Journal of Applied Physics, 2019, 126, 155305.	1.1	14
56	Optimization of Nano-structured Tin Doped Indium Oxide Films Grown at Substrate Temperature close to the Melting Point of Tin. Materials Today: Proceedings, 2019, 18, 1304-1309.	0.9	3
57	Significant band gap narrowing of reduced monoclinic TiO ₂ -B porous nanowire decorated by ternary hybrid of Cu/Cu ₂ O-nanoparticle for efficient visible light absorption. Materials Today: Proceedings, 2019, 18, 1430-1434.	0.9	2
58	Enhanced multiferroic, magnetodielectric and electrical properties of Sm doped Lanthanum ferrite nanoparticles. Journal of Materials Science: Materials in Electronics, 2019, 30, 10694-10710.	1.1	11
59	Influence of manganese on multiferroic and electrical properties of lanthanum ferrite nanoparticles. Materials Research Express, 2019, 6, 085032.	0.8	6
60	Further optimization of ITO films at the melting point of Sn and configuration of Ohmic contact at the c-Si/ITO interface. Applied Surface Science, 2019, 481, 16-24.	3.1	20
61	Optimization in the nanostructural evolution of hydrogenated silicon germanium thin film in RF-PECVD. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 111, 20-28.	1.3	10
62	Nanocrystalline Diamond. , 2019, , 123-181.		6
63	Photocatalytic degradation of Rhodamine-B dye by stable ZnO nanostructures with different calcination temperature induced defects. Applied Surface Science, 2019, 465, 546-556.	3.1	127
64	Highly conducting p-type nanocrystalline silicon thin films preparation without additional hydrogen dilution. AIP Conference Proceedings, 2018, , .	0.3	3
65	Silicon nanostructure arrays prepared by single step metal assisted chemical etching from single crystal wafer. AIP Conference Proceedings, 2018, , .	0.3	4
66	Maintaining significant ultra-nanocrystallinity in electrically conducting boron doped silicon thin layers for solar cells. AIP Conference Proceedings, 2018, , .	0.3	1
67	Optimization of growth of nanocrystalline silicon germanium thin films synthesized by RF-PECVD. AIP Conference Proceedings, 2018, , .	0.3	0
68	Controlling the opto-electronic properties of nc-SiO _x :H films by promotion of $\sim 220^\circ$ orientation in the growth of ultra-nanocrystallites at the grain boundary. Applied Surface Science, 2018, 428, 757-766.	3.1	14
69	Nano-diamond and Diamond-like Carbon Thin Films for Anti-Reflecting Coating Application on Silicon Solar Cells. Materials Today: Proceedings, 2018, 5, 23316-23320.	0.9	4
70	Microstructural association of diverse chemical constituents in nc-SiO _x :H network synthesized by spontaneous low temperature plasma processing. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 103, 99-109.	1.3	16
71	Low temperature growth of carbon nanotubes by microwave plasma stimulated by CO ₂ as weak oxidant and guided by shadow masking. Diamond and Related Materials, 2018, 88, 204-214.	1.8	20
72	Melting point of Sn as the optimal growth temperature in realizing the favored transparent conducting properties of In ₂ O ₃ :Sn films. Journal of Alloys and Compounds, 2018, 767, 642-650.	2.8	17

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73	Self-doped TiO ₂ nanowires in TiO ₂ -B single phase, TiO ₂ -B/anatase and TiO ₂ -anatase/rutile heterojunctions demonstrating individual superiority in photocatalytic activity under visible and UV light. Applied Surface Science, 2018, 455, 1106-1115.	3.1	67
74	Structural, Magnetic and Optical Properties of Lanthanum Ferrite Nanoparticles with Application Perspective. Advanced Science Letters, 2018, 24, 913-917.	0.2	1
75	Fabrication of double barrier structures in single layer c-Si ⁺ QDs/a-SiO _x films for realization of energy selective contacts for hot carrier solar cells. Journal of Applied Physics, 2017, 121, 044305.	1.1	4
76	Nanocrystalline silicon thin films from SiH ₄ plasma diluted by H ₂ and He in RF-PECVD. Journal of Physics and Chemistry of Solids, 2017, 105, 90-98.	1.9	26
77	Further improvements in conducting and transparent properties of ZnO:Ga films with perpetual c-axis orientation: Materials optimization and application in silicon solar cells. Applied Surface Science, 2017, 411, 315-320.	3.1	35
78	The growth of ZnO:Ga:Cu as new TCO film of advanced electrical, optical and structural quality. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 91, 1-7.	1.3	13
79	Correlation between the physical parameters of the i ⁺ nc-Si absorber layer grown by 27.12 MHz plasma with the nc-Si solar cell parameters. Applied Surface Science, 2017, 416, 980-987.	3.1	36
80	Structural characterization of silicon thin film superlattice grown at low temperature. Superlattices and Microstructures, 2017, 111, 385-395.	1.4	1
81	Black silicon prepared by H ₂ plasma etching of single crystal wafers in PECVD. AIP Conference Proceedings, 2017, , .	0.3	2
82	Low temperature growth of carbon nanotubes with aligned multiwalls by microwave plasma-CVD. AIP Conference Proceedings, 2017, , .	0.3	5
83	Enhancement of multiferroic properties and unusual magnetic phase transition in Eu doped bismuth ferrite nanoparticles. New Journal of Chemistry, 2017, 41, 10985-10991.	1.4	33
84	Development of optimum p-nc-Si window layers for nc-Si solar cells. Physical Chemistry Chemical Physics, 2017, 19, 21357-21363.	1.3	12
85	Structural studies of n-type nc-Si ⁺ QD thin films for nc-Si solar cells. Journal of Physics and Chemistry of Solids, 2017, 111, 115-122.	1.9	10
86	Metastable titanium dioxide B-phase nanowire prepared by hydrothermal method. AIP Conference Proceedings, 2017, , .	0.3	4
87	Effect of oxygen on the optical, electrical and structural properties of mixed-phase boron doped nanocrystalline silicon oxide thin films. Applied Surface Science, 2017, 423, 1161-1168.	3.1	15
88	Growth of highly aligned vertical Si-Nanorods and random Si-Nanowires by ICP-Plasma chemical etching of c-Si wafers. AIP Conference Proceedings, 2017, , .	0.3	3
89	Highly conducting and wide band gap phosphorous doped nc-Si ⁺ QD/a-SiC films as n-type window layers for solar cells. AIP Conference Proceedings, 2016, , .	0.3	0
90	Opto-electronic properties of P-doped nc-Si ⁺ QD/a-SiC:H thin films as foundation layer for all-Si solar cells in superstrate configuration. Journal of Applied Physics, 2016, 120, 025102.	1.1	9

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91	Effect of hydrogen in controlling the structural orientation of ZnO:Ga:H as transparent conducting oxide films suitable for applications in stacked layer devices. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20450-20458.	1.3	22
92	Low temperature grown ZnO:Ga films with predominant c-axis orientation in wurtzite structure demonstrating high conductance, transmittance and photoluminescence. <i>RSC Advances</i> , 2016, 6, 6144-6153.	1.7	53
93	Self-assembled nc-Si-QD/a-SiC thin films from planar ICP-CVD plasma without H ₂ -dilution: a combination of wide optical gap, high conductivity and preferred $\sim 220^\circ$ crystallographic orientation, uniquely appropriate for nc-Si solar cells. <i>RSC Advances</i> , 2016, 6, 3860-3869.	1.7	13
94	Further improvements of nano-diamond structures on unheated substrates by optimization of parameters with secondary plasma in MW-PECVD. <i>Surface and Coatings Technology</i> , 2015, 272, 357-365.	2.2	21
95	Self-assembled ultra-nanocrystalline silicon films with preferred $\sim 220^\circ$ crystallographic orientation for solar cell applications. <i>Applied Surface Science</i> , 2015, 330, 134-141.	3.1	9
96	Rapid synthesis of nc-Si/a-SiN _x :H QD thin films by plasma processing for their cost effective applications in photonic and photovoltaic devices. <i>RSC Advances</i> , 2015, 5, 63572-63579.	1.7	10
97	Superior optical response of size-controlled silicon nano-crystals in a-Si:H/nc-Si:H superlattice films for multi-junction solar cells. <i>RSC Advances</i> , 2015, 5, 61118-61126.	1.7	12
98	Anti-reflection coatings for silicon solar cells from hydrogenated diamond like carbon. <i>Applied Surface Science</i> , 2015, 345, 204-215.	3.1	38
99	Quantum size effects on the optical properties of nc-Si QDs embedded in an a-SiO _x matrix synthesized by spontaneous plasma processing. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 5063-5071.	1.3	18
100	Preferential $\sim 220^\circ$ crystalline growth in nanocrystalline silicon films from 27.12 MHz SiH ₄ plasma for applications in solar cells. <i>RSC Advances</i> , 2015, 5, 54011-54018.	1.7	14
101	Investigation of the vertical electrical transport in a-Si:H/nc-Si:H superlattice thin films. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 17063-17068.	1.3	3
102	Self-assembled nc-Si/a-SiN _x :H quantum dots thin films: An alternative solid-state light emitting material. <i>Journal of Luminescence</i> , 2015, 158, 11-18.	1.5	8
103	Low temperature synthesis of spherical nano-diamond. <i>Journal of Experimental Nanoscience</i> , 2014, 9, 818-824.	1.3	15
104	Spectroscopic and microscopic studies of self-assembled nc-Si/a-SiC thin films grown by low pressure high density spontaneous plasma processing. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 25421-25431.	1.3	15
105	Conducting intrinsic nanocrystalline silicon films with high growth rate prepared at 27.12 MHz frequency. , 2014, , .		0
106	One-step synthesis of silicon nanocrystals in \sim SiO _x matrix at low-temperature by RF magnetron sputtering. , 2014, , .		0
107	Fabrication of highly transparent diamond-like carbon anti-reflecting coating for Si solar cell application. , 2014, , .		3
108	Low temperature plasma processing of nc-Si/a-SiN _x :H QD thin films with high carrier mobility and preferred (220) crystal orientation: a promising material for third generation solar cells. <i>RSC Advances</i> , 2014, 4, 36929-36939.	1.7	14

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109	Photoluminescence phenomena prevailing in c-axis oriented intrinsic ZnO thin films prepared by RF magnetron sputtering. RSC Advances, 2014, 4, 35735-35743.	1.7	176
110	Spectroscopic studies on nanocrystalline silicon thin films prepared from H ₂ -diluted SiH ₄ -plasma in inductively coupled low pressure RF PECVD. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 61, 95-100.	1.3	12
111	Conducting wide band gap nc-Si/a-SiC:H films for window layers in nc-Si solar cells. Journal of Materials Chemistry A, 2013, 1, 14744.	5.2	50
112	SiO _x nanowires with intrinsic nC-Si quantum dots: the enhancement of the optical absorption and photoluminescence. Journal of Materials Chemistry C, 2013, 1, 6623.	2.7	20
113	Realizing a variety of carbon nanostructures at low temperature using MW-PECVD of (CH ₄ +H ₂) plasma. Applied Surface Science, 2013, 273, 806-815.	3.1	26
114	Electrical transport phenomena prevailing in undoped nc-Si/a-SiN _x :H thin films prepared by inductively coupled plasma chemical vapor deposition. Journal of Applied Physics, 2013, 114, .	1.1	50
115	Transparent and conducting intrinsic ZnO thin films prepared at high growth-rate with c-axis orientation and pyramidal surface texture. Applied Surface Science, 2013, 286, 397-404.	3.1	46
116	Tunable photoluminescence from nc-Si/a-SiN _x :H quantum dot thin films prepared by ICP-CVD. Physical Chemistry Chemical Physics, 2013, 15, 3881.	1.3	45
117	Nanocrystalline silicon thin films prepared by low pressure planar inductively coupled plasma. Applied Surface Science, 2013, 276, 249-257.	3.1	42
118	Preferred C-axis oriented photoluminescent ZnO thin films prepared by RF magnetron sputtering. , 2013, , .		1
119	Wide band gap nanocrystalline silicon carbide thin films prepared by ICP-CVD. , 2013, , .		0
120	Development of nc-Si/a-SiN _x :H Thin Films for Photovoltaic and Light-Emitting Applications. Science of Advanced Materials, 2013, 5, 188-198.	0.1	28
121	Low temperature plasma synthesis of photoluminescent nanocrystalline silicon-nitride. , 2012, , .		0
122	Effect of substrate bias on the promotion of nanocrystalline silicon growth from He-diluted SiH ₄ plasma at low temperature. Journal of Materials Research, 2012, 27, 1303-1313.	1.2	12
123	Structural investigation of nC-Si/SiO _x :H thin films from He diluted (SiH ₄ +CO ₂) plasma at low temperature. Applied Surface Science, 2012, 259, 477-485.	3.1	11
124	Size effect on electronic transport in nC-Si/SiO core/shell quantum dots. Materials Research Bulletin, 2012, 47, 3625-3629.	2.7	17
125	Effect of RF power on the formation and size evolution of nC-Si quantum dots in an amorphous SiO _x matrix. Journal of Materials Chemistry, 2011, 21, 7452.	6.7	14
126	Controlling the growth of nanocrystalline silicon by tuning negative substrate bias. Solar Energy Materials and Solar Cells, 2011, 95, 3181-3188.	3.0	45

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127	Changes in Optical and Electrical Phenomena Correlated to Structural Configuration in Nanocrystalline Silicon Network. <i>Journal of the Electrochemical Society</i> , 2011, 158, H1138.	1.3	8
128	Photoluminescent silicon quantum dots in core/shell configuration: synthesis by low temperature and spontaneous plasma processing. <i>Nanotechnology</i> , 2011, 22, 055601.	1.3	35
129	Optical, electrical and structural properties of SiO _x :H films prepared from He dilution to the SiH ₄ plasma. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 215404.	1.3	15
130	Studies on the structural properties of SiO:H films prepared from (SiH ₄ +CO ₂ +He) plasma in RF-PECVD. <i>Solar Energy Materials and Solar Cells</i> , 2009, 93, 588-596.	3.0	42
131	Evolution of nc-Si Network and the Control of Its Growth by He/H ₂ Plasma Assistance in SiH ₄ at PECVD. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 5614-5621.	0.9	5
132	Nanocrystalline silicon prepared at high growth rate using helium dilution. <i>Bulletin of Materials Science</i> , 2008, 31, 467-471.	0.8	9
133	Hydrogen induced promotion of nanocrystallization from He-diluted SiH ₄ plasma. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 085303.	1.3	35
134	Effect of deposition temperature on the growth of nanocrystalline silicon network from helium diluted silane plasma. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 155420.	1.3	36
135	Nanocrystalline silicon films prepared from silane plasma in RF-PECVD, using helium dilution without hydrogen: structural and optical characterization. <i>Nanotechnology</i> , 2007, 18, 415704.	1.3	65
136	Characterization of the Si:H network during transformation from amorphous to micro- and nanocrystalline structures. <i>Journal of Applied Physics</i> , 2006, 100, 103701.	1.1	54
137	Structural studies on Si:H network by Raman, micro-photoluminescence, electron microscopy and ultraviolet ellipsometry: effect of Ar dilution to the SiH ₄ plasma. <i>Thin Solid Films</i> , 2005, 476, 237-245.	0.8	41
138	Better control over the onset of microcrystallinity in fast-growing silicon network. <i>Journal of Materials Research</i> , 2004, 19, 2597-2603.	1.2	10
139	Rigid amorphous silicon network from hydrogenated and fluorinated precursors in ECR-CVD. <i>Solar Energy Materials and Solar Cells</i> , 2004, 81, 155-168.	3.0	14
140	Generally Applicable Self-Masked Dry Etching Technique for Nanotip Array Fabrication. <i>Nano Letters</i> , 2004, 4, 471-475.	4.5	147
141	Development of highly conducting p-type ¹ / ₄ c-Si:H films from minor diborane doping in highly hydrogenated SiH ₄ plasma. <i>Materials Letters</i> , 2004, 58, 980-985.	1.3	9
142	Helium versus hydrogen dilution in the optimization of polymorphous silicon solar cells. <i>Journal of Non-Crystalline Solids</i> , 2004, 338-340, 668-672.	1.5	26
143	Evolution of microcrystalline growth pattern by ultraviolet spectroscopic ellipsometry on Si:H films prepared by Hot-Wire CVD. <i>Solid State Communications</i> , 2003, 128, 397-402.	0.9	9
144	Micro-photoluminescence and micro-Raman studies near the amorphous-to-microcrystalline transition in Si:H. <i>Solid State Communications</i> , 2003, 127, 453-456.	0.9	9

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145	P-doped $\hat{1}/4c$ -Si:H films at a very low thickness and high deposition rate: Suitable for application in solar cells. Journal of Materials Research, 2003, 18, 2371-2378.	1.2	4
146	Micro-Raman and ultraviolet ellipsometry studies on $\hat{1}/4c$ -Si:H films prepared by H ₂ dilution to the Ar-assisted SiH ₄ plasma in radio frequency glow discharge. Journal of Applied Physics, 2003, 93, 2528-2535.	1.1	39
147	A novel approach towards silicon nanotechnology. Journal Physics D: Applied Physics, 2003, 36, 2335-2346.	1.3	39
148	Correlation of Electrical, Thermal and Structural Properties of Microcrystalline Silicon Thin Films. Japanese Journal of Applied Physics, 2002, 41, L229-L232.	0.8	17
149	Role of hydrogen in controlling the growth of $\hat{1}/4c$ -Si:H films from argon diluted SiH ₄ plasma. Journal of Applied Physics, 2002, 91, 5442-5448.	1.1	41
150	Promotion of microcrystallization by argon in moderately hydrogen diluted silane plasma. Solar Energy Materials and Solar Cells, 2002, 74, 407-413.	3.0	21
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