Golap Kalita

List of Publications by Year in Descending Order

140 papers	2,265 citations	27 h-index	40 g-index
149 ext. papers	2,625 ext. citations	3.7 avg, IF	4.97 L-index

#	Paper	IF	Citations
140	Upcycling the barbeque grease into carbon nanomaterials. *Carbon Trends*, **2022**, 6, 100143	0	1
139	Effective reduction and doping of graphene oxide films at near-room temperature by microwave-excited surface-wave plasma process. *Diamond and Related Materials*, **2022**, 126, 109066	3.5	0
138	Recent Development in Vanadium Pentoxide and Carbon Hybrid Active Materials for Energy Storage Devices.. *Nanomaterials*, **2021**, 11,	5.4	5
137	Synthesis of MoS2 Layers on GaN Using Ammonium Tetrathiomolybdate for Heterojunction Device Applications. *Crystal Research and Technology*, **2021**, 56, 2000198	1.3	1
136	Trifunctional Electrocatalytic Activities of Nitrogen-Doped Graphitic Carbon Nanofibers Synthesized by Chemical Vapor Deposition. *ChemistrySelect*, **2021**, 6, 4867-4873	1.8	3
135	Flexible Photocatalytic Electrode Using Graphene, Non-noble Metal, and Organic Semiconductors for Hydrogen Evolution Reaction. *Energy Technology*, **2021**, 9, 2100123	3.5	5
134	Photo-anode surface modification using novel graphene oxide integrated with methylammonium lead iodide in organic-inorganic perovskite solar cells. *Journal of Physics and Chemistry of Solids*, **2021**, 154, 110036	3.9	
133	Biological Synthesis of PbS, AsS, HgS, CdS Nanoparticles using Pseudomonas aeruginosa and their Structural, Morphological, Photoluminescence as well as Whole Cell Protein Profiling Studies. *Journal of Fluorescence*, **2021**, 31, 1445-1459	2.4	
132	In situ surface modification of bulk or nano materials by cytochrome-c for active hydrogen evolution catalysis. *Materials Chemistry Frontiers*, **2021**, 5, 1295-1300	7.8	1
131	Temperature-dependent device properties of □CuI and □Ga2O3 heterojunctions. *SN Applied Sciences*, **2021**, 3, 1	1.8	1
130	Bimetallic Au□Pd nanoparticles supported on silica with a tunable core@shell structure: enhanced catalytic activity of Pd(core)□Au(shell) over Au(core)□Pd(shell). *Nanoscale Advances*, **2021**, 3, 5399-5416	5.1	0
129	One-step synthesis of spontaneously graphitized nanocarbon using cobalt-nanoparticles. *SN Applied Sciences*, **2020**, 2, 1	1.8	1
128	Molybdenum disulfide□graphene van der Waals heterostructures as stable and sensitive electrochemical sensing platforms. *Tungsten*, **2020**, 2, 411-422	4.6	6
127	Structural evolution of BCN systems from graphene oxide towards electrocatalytically active atomic layers. *Materials Chemistry Frontiers*, **2020**, 4, 2330-2338	7.8	7
126	Room-temperature graphitization in a solid-phase reaction.. *RSC Advances*, **2020**, 10, 914-922	3.7	3
125	Growth of uniform MoS2 layers on free-standing GaN semiconductor for vertical heterojunction device application. *Journal of Materials Science: Materials in Electronics*, **2020**, 31, 2040-2048	2.1	4
124	Ultraviolet radiation-induced photovoltaic action in □CuI/□Ga2O3 heterojunction. *Materials Letters*, **2020**, 262, 127074	3.3	13

123	Output density quantification of electricity generation by flowing deionized water on graphene. *Applied Physics Letters*, **2020**, 117, 123905	3.4	1
122	Synthesis and Characterization of Li-C Nanocomposite for Easy and Safe Handling. *Nanomaterials*, **2020**, 10,	5.4	3
121	Graphitization of Gallium-Incorporated Carbon Nanofibers and Cones: In Situ and Ex Situ Transmission Electron Microscopy Studies. *Physica Status Solidi (B): Basic Research*, **2020**, 257, 2000309	1.3	0
120	Influence of MoS2-Silicon Interface States on Spectral Photoresponse Characteristics. *Physica Status Solidi (A) Applications and Materials Science*, **2019**, 216, 1900349	1.6	3
119	Formation of Effective CuI-GaN Heterojunction with Excellent Ultraviolet Photoresponsive Photovoltage. *Physica Status Solidi (A) Applications and Materials Science*, **2019**, 216, 1900200	1.6	3
118	Ultraviolet light induced electrical hysteresis effect in graphene-GaN heterojunction. *Applied Physics Letters*, **2019**, 114, 151102	3.4	13
117	Low temperature wafer-scale synthesis of hexagonal boron nitride by microwave assisted surface wave plasma chemical vapour deposition. *AIP Advances*, **2019**, 9, 035043	1.5	7
116	Observing Charge Transfer Interaction in CuI and MoS2 Heterojunction for Photoresponsive Device Application. *ACS Applied Electronic Materials*, **2019**, 1, 302-310	4	11
115	Temperature dependence of catalytic activity in graphene synthesis for Sn nanoparticles. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 12796-12803	2.1	
114	The Mo catalyzed graphitization of amorphous carbon: an TEM study.. *RSC Advances*, **2019**, 9, 34377-34381	3.7	4
113	Effects of nitrogen-dopant bonding states on liquid-flow-induced electricity generation of graphene: A comparative study. *Results in Physics*, **2019**, 12, 1291-1293	3.7	2
112	Nitrogen doping effect on flow-induced voltage generation from graphene-water interface. *Applied Physics Letters*, **2018**, 112, 023902	3.4	11
111	In situ TEM synthesis of carbon nanotube Y-junctions by electromigration induced soldering. *Carbon*, **2018**, 132, 165-171	10.4	11
110	Edge controlled growth of hexagonal boron nitride crystals on copper foil by atmospheric pressure chemical vapor deposition. *CrystEngComm*, **2018**, 20, 550-555	3.3	15
109	Switching isotropic and anisotropic graphene growth in a solid source CVD system. *CrystEngComm*, **2018**, 20, 5356-5363	3.3	6
108	Role of Doped Nitrogen in Graphene for Flow-Induced Power Generation. *Advanced Engineering Materials*, **2018**, 20, 1800387	3.5	8
107	Photovoltaic Action With Broadband Photoresponsivity in Germanium-MoS2 Ultrathin Heterojunction. *IEEE Transactions on Electron Devices*, **2018**, 65, 4434-4440	2.9	16
106	Synthesis of Freestanding WS2 Trees and Fibers on Au by Chemical Vapor Deposition (CVD). *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1700566	1.6	2

105	Development of oxide nanofiber tipped cantilever as a substrate for cross-sectional transmission electron microscopy analysis. *Surface and Interface Analysis*, **2018**, 50, 1122-1126	1.5	0
104	Photovoltaic Action in Graphene Ga2O3 Heterojunction with Deep-Ultraviolet Irradiation. *Physica Status Solidi - Rapid Research Letters*, **2018**, 12, 1800198	2.5	16
103	Schottky Barrier Diode Characteristics of Graphene-GaN Heterojunction with Hexagonal Boron Nitride Interfacial Layer. *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1800089	1.6	8
102	Synthesis of MoS 2 ribbons and their branched structures by chemical vapor deposition in sulfur-enriched environment. *Applied Surface Science*, **2017**, 409, 396-402	6.7	18
101	Transfer free graphene growth on SiO substrate at 250 °C. *Scientific Reports*, **2017**, 7, 43756	4.9	28
100	An immobilized symmetrical bis-(NHC) palladium complex as a highly efficient and recyclable Suzuki-Miyaura catalyst in aerobic aqueous media. *Dalton Transactions*, **2017**, 46, 539-546	4.3	45
99	Optimization of CVD parameters for graphene synthesis through design of experiments. *Physica Status Solidi (B): Basic Research*, **2017**, 254, 1600629	1.3	7
98	Graphene formation at 150 °C using indium as catalyst. *RSC Advances*, **2017**, 7, 47353-47356	3.7	6
97	Fundamentals of Chemical Vapor Deposited Graphene and Emerging Applications **2017**,		5
96	Encapsulation of transition metal dichalcogenides crystals with room temperature plasma deposited carbonaceous films. *RSC Advances*, **2017**, 7, 41136-41143	3.7	0
95	Temperature dependent diode and photovoltaic characteristics of graphene-GaN heterojunction. *Applied Physics Letters*, **2017**, 111, 013504	3.4	24
94	Visualization of silver-decorated poly (DL-lactide-co-glycolide) nanoparticles and their efficacy against Staphylococcus epidermidis. *Materials Science and Engineering C*, **2017**, 72, 143-149	8.3	18
93	Influence of copper foil polycrystalline structure on graphene anisotropic etching. *Applied Surface Science*, **2017**, 393, 428-433	6.7	6
92	Synthesis of uniform monolayer graphene on re-solidified copper from waste chicken fat by low pressure chemical vapor deposition. *Materials Research Bulletin*, **2016**, 83, 573-580	5.1	19
91	Bonding state and defects of nitrogen-doped graphene in oxygen reduction reaction. *Chemical Physics Letters*, **2016**, 665, 117-120	2.5	21
90	Nitrogen Doped Graphene as Metal Free Electrocatalyst for Efficient Oxygen Reduction Reaction in Alkaline Media and Its Application in Anion Exchange Membrane Fuel Cells. *Journal of the Electrochemical Society*, **2016**, 163, F848-F855	3.9	59
89	Structure of nitrogen-doped graphene synthesized by combination of imidazole and melamine solid precursors. *Materials Letters*, **2016**, 177, 89-93	3.3	11
88	Fabrication of particular structures of hexagonal boron nitride and boron carbon nitrogen layers by anisotropic etching. *Physica E: Low-Dimensional Systems and Nanostructures*, **2016**, 79, 13-19	3	2

87	Ambiguity in determining H 2 adsorption capacity of carbon fiber by pressure technique. *International Journal of Hydrogen Energy*, **2016**, 41, 2671-2676	6.7	3
86	Grain structures of nitrogen-doped graphene synthesized by solid source-based chemical vapor deposition. *Carbon*, **2016**, 96, 448-453	10.4	35
85	Room temperature fabrication of 1D carbon-copper composite nanostructures directly on Cu substrate and their field emission properties. *AIP Advances*, **2016**, 6, 095109	1.5	4
84	An effective approach to synthesize monolayer tungsten disulphide crystals using tungsten halide precursor. *Applied Physics Letters*, **2016**, 108, 053104	3.4	14
83	In situ TEM visualization of Pd assisted graphene growth in nanoscale **2016**,		1
82	Effect of copper foil annealing process on large graphene domain growth by solid source-based chemical vapor deposition. *Journal of Materials Science*, **2016**, 51, 7220-7228	4.3	21
81	Morphology-Controlled Synthesis of Hexagonal Boron Nitride Crystals by Chemical Vapor Deposition. *Crystal Growth and Design*, **2016**, 16, 6440-6445	3.5	9
80	CuNi binary alloy catalyst for growth of nitrogen-doped graphene by low pressure chemical vapor deposition. *Physica Status Solidi - Rapid Research Letters*, **2016**, 10, 749-752	2.5	3
79	Influence of oxygen on nitrogen-doped carbon nanofiber growth directly on nichrome foil. *Nanotechnology*, **2016**, 27, 365602	3.4	6
78	In situ fabrication of graphene from a copper carbon nanoneedle and its electrical properties. *RSC Advances*, **2016**, 6, 82459-82466	3.7	4
77	Opening of triangular hole in triangular-shaped chemical vapor deposited hexagonal boron nitride crystal. *Scientific Reports*, **2015**, 5, 10426	4.9	36
76	Structure dependent hydrogen induced etching features of graphene crystals. *Applied Physics Letters*, **2015**, 106, 253106	3.4	12
75	Polymer-free graphene transfer on moldable cellulose acetate based paper by hot press technique. *Surface and Coatings Technology*, **2015**, 275, 369-373	4.4	8
74	Formation of graphene nanoribbons and Y-junctions by hydrogen induced anisotropic etching. *RSC Advances*, **2015**, 5, 35297-35301	3.7	13
73	Fabrication of graphene and ZnO nanocones hybrid structure for transparent field emission device. *Applied Surface Science*, **2015**, 356, 674-678	6.7	15
72	In situ transmission electron microscopy of Ag-incorporated carbon nanofibers: the effect of Ag nanoparticle size on graphene formation. *RSC Advances*, **2015**, 5, 5647-5651	3.7	5
71	Effect of annealing in hydrogen atmosphere on ZnO films for field emission display. *IOP Conference Series: Materials Science and Engineering*, **2015**, 99, 012030	0.4	3
70	Bifunctional Electrocatalytic Activity of Boron-Doped Graphene Derived from Boron Carbide. *Advanced Energy Materials*, **2015**, 5, 1500658	21.8	112

69	Room-temperature growth of ion-induced Si- and Ge-incorporated carbon nanofibers. *Physica Status Solidi (B): Basic Research*, **2015**, 252, 1345-1349	1.3	8
68	Effect of WO3 precursor and sulfurization process on WS2 crystals growth by atmospheric pressure CVD. *Materials Letters*, **2015**, 156, 156-160	3.3	28
67	Fabrication of transparent and flexible carbon-doped ZnO field emission display on plastic substrate. *Physica Status Solidi - Rapid Research Letters*, **2015**, 9, 145-148	2.5	14
66	Electron microscopy of Staphylococcus epidermidis fibril and biofilm formation using image-enhancing ionic liquid. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 1607-13	4.4	14
65	Non-blinking dendritic crystals from C-dot solution. *Carbon Letters*, **2015**, 16, 211-214	2.3	5
64	Visualizing copper assisted graphene growth in nanoscale. *Scientific Reports*, **2014**, 4, 7563	4.9	13
63	Synthesis of graphene crystals from solid waste plastic by chemical vapor deposition. *Carbon*, **2014**, 72, 66-73	10.4	107
62	Low temperature deposited graphene by surface wave plasma CVD as effective oxidation resistive barrier. *Corrosion Science*, **2014**, 78, 183-187	6.8	49
61	Highly transparent and conducting C:ZnO thin film for field emission displays. *RSC Advances*, **2014**, 4, 64763-64770	3.7	27
60	Controlling single and few-layer graphene crystals growth in a solid carbon source based chemical vapor deposition. *Applied Physics Letters*, **2014**, 105, 133103	3.4	9
59	On the large capacitance of nitrogen doped graphene derived by a facile route. *RSC Advances*, **2014** , 4, 38689-38697	3.7	104
58	Photoresponsivity of silver nanoparticles decorated graphene□ilicon Schottky junction. *RSC Advances*, **2014**, 4, 26866-26871	3.7	25
57	Transformation of chemical vapor deposited individual graphene crystal with oxidation of copper substrate. *Carbon*, **2014**, 80, 504-512	10.4	15
56	Synthesis of a three dimensional structure of vertically aligned carbon nanotubes and graphene from a single solid carbon source. *RSC Advances*, **2014**, 4, 13355	3.7	10
55	Synthesis of transfer-free graphene by solid phase reaction process in presence of a carbon diffusion barrier. *Materials Letters*, **2014**, 129, 76-79	3.3	7
54	Direct observation of structural change in Au-incorporated carbon nanofibers during field emission process. *Carbon*, **2014**, 75, 277-280	10.4	12
53	Fabrication of poly(methyl methacrylate)-MoS2/graphene heterostructure for memory device application. *Journal of Applied Physics*, **2014**, 116, 214306	2.5	35
52	Synthesis of carbon fibers with branched nanographene sheets for electrochemical double layer capacitor application. *Journal of Nanoscience and Nanotechnology*, **2014**, 14, 2614-9	1.3	2

51	Blend of Silicon Nanostructures and Conducting Polymers for Solar Cells **2014**, 495-508		2
50	Field emission properties of chemical vapor deposited individual graphene. *Applied Physics Letters*, **2014**, 104, 093501	3.4	11
49	Controlling the direct growth of graphene on an insulating substrate by the solid phase reaction of a polymer layer. *RSC Advances*, **2014**, 4, 38450-38454	3.7	9
48	Fabrication and characteristics of solution-processed graphene oxide□silicon heterojunction. *Physica Status Solidi - Rapid Research Letters*, **2013**, 7, 340-343	2.5	12
47	Synthesis of hexagonal graphene on polycrystalline Cu foil from solid camphor by atmospheric pressure chemical vapor deposition. *Journal of Materials Science*, **2013**, 48, 7036-7041	4.3	13
46	Influence of gas composition on the formation of graphene domain synthesized from camphor. *Materials Letters*, **2013**, 93, 258-262	3.3	30
45	A photoinduced charge transfer composite of graphene oxide and ferrocene. *Physical Chemistry Chemical Physics*, **2013**, 15, 1271-4	3.6	32
44	Formation of graphene nano-particle by means of pulsed discharge to ethanol. *Journal of Applied Physics*, **2013**, 113, 114304	2.5	19
43	Field emission characteristics of pristine and N-doped graphene measured by in-situ transmission electron microscopy. *Journal of Applied Physics*, **2013**, 113, 214311	2.5	18
42	Room-Temperature Fabrication of Au- and Ag-Incorporated Carbon Nanofibers by Ion Irradiation and Their Field Emission Properties. *Japanese Journal of Applied Physics*, **2013**, 52, 11NL01	1.4	6
41	Fabrication of Nanostructured ZnO Films for Transparent Field Emission Displays. *Japanese Journal of Applied Physics*, **2013**, 52, 11NJ07	1.4	8
40	Conducting polymer based hybrid structure as transparent and flexible field electron emitter. *Physica Status Solidi - Rapid Research Letters*, **2013**, 7, 489-492	2.5	2
39	Chemical vapor deposition of graphene on silver foil as a tarnish-resistant coating. *Physica Status Solidi - Rapid Research Letters*, **2013**, 7, 1076-1079	2.5	21
38	Fabrication of a Schottky junction diode with direct growth graphene on silicon by a solid phase reaction. *Journal Physics D: Applied Physics*, **2013**, 46, 455103	3	27
37	Synthesis of transfer-free graphene on an insulating substrate using a solid phase reaction. *Nanoscale*, **2012**, 4, 7791-6	7.7	19
36	Synthesis of graphene by surface wave plasma chemical vapor deposition from camphor. *Physica Status Solidi (A) Applications and Materials Science*, **2012**, 209, 2510-2513	1.6	14
35	Direct growth of nanographene films by surface wave plasma chemical vapor deposition and their application in photovoltaic devices. *RSC Advances*, **2012**, 2, 3225	3.7	41
34	Formation of Graphene-Containing Porous Carbon Film for Electric Double-Layer Capacitor by Pulsed Plasma Chemical Vapor Deposition. *Japanese Journal of Applied Physics*, **2012**, 51, 045103	1.4	3

33	High temperature in-situ observations of multi-segmented metal nanowires encapsulated within carbon nanotubes by in-situ filling technique. *Nanoscale Research Letters*, **2012**, 7, 448	5	5
32	Low temperature growth of graphene film by microwave assisted surface wave plasma CVD for transparent electrode application. *RSC Advances*, **2012**, 2, 2815	3.7	68
31	In situ TEM observation of Fe-included carbon nanofiber: evolution of structural and electrical properties in field emission process. *ACS Nano*, **2012**, 6, 9567-73	16.7	26
30	Large-area CVD graphene as transparent electrode for efficient organic solar cells **2012**,		2
29	Structural and Electrical Properties of Ozone Irradiated Carbon Nanotube Yarns and Sheets. *Materials Express*, **2012**, 2, 357-362	1.3	14
28	Formation of Graphene-Containing Porous Carbon Film for Electric Double-Layer Capacitor by Pulsed Plasma Chemical Vapor Deposition. *Japanese Journal of Applied Physics*, **2012**, 51, 045103	1.4	3
27	Iodine doping in solid precursor-based CVD growth graphene film. *Journal of Materials Chemistry*, **2011**, 21, 15209		94
26	Structural Analysis and Direct Imaging of Rotational Stacking Faults in Few-Layer Graphene Synthesized from Solid Botanical Precursor. *Japanese Journal of Applied Physics*, **2011**, 50, 070106	1.4	3
25	Femtosecond laser induced micropatterning of graphene film. *Materials Letters*, **2011**, 65, 1569-1572	3.3	58
24	Monolayer graphene from a green solid precursor. *Physica E: Low-Dimensional Systems and Nanostructures*, **2011**, 43, 1490-1493	3	32
23	Hydrogen Storage by Carbon Fibers Synthesized by Pyrolysis of Cotton Fibers. *Carbon Letters*, **2011**, 12, 39-43	2.3	8
22	Structural Analysis and Direct Imaging of Rotational Stacking Faults in Few-Layer Graphene Synthesized from Solid Botanical Precursor. *Japanese Journal of Applied Physics*, **2011**, 50, 070106	1.4	1
21	Graphene constructed carbon thin films as transparent electrodes for solar cell applications. *Journal of Materials Chemistry*, **2010**, 20, 9713		68
20	Poly(3-octylthiophene)/fullerene heterojunction solar cell incorporating carbon nanotubes. *Journal of Nanoscience and Nanotechnology*, **2010**, 10, 3844-8	1.3	1
19	Nanostructured morphology of P3HT:PCBM bulk heterojunction solar cells. *Solid-State Electronics*, **2010**, 54, 447-451	1.7	25
18	Few layers of graphene as transparent electrode from botanical derivative camphor. *Materials Letters*, **2010**, 64, 2180-2183	3.3	49
17	Functionalization of multi-walled carbon nanotubes (MWCNTs) with nitrogen plasma for photovoltaic device application. *Current Applied Physics*, **2009**, 9, 346-351	2.6	37
16	Effect of liquid nitrogen treatment on the structural, electrical and optical properties of indium tin oxide coated glass substrate. *Chemical Physics Letters*, **2009**, 481, 68-72	2.5	2

15	Silicon nanowire array/polymer hybrid solar cell incorporating carbon nanotubes. *Journal Physics D: Applied Physics*, **2009**, 42, 115104	3	57
14	Application of carbon nanotubes in hybrid and organic solar cells **2009**,		1
13	Enhancement of fluorine doped amorphous carbon thin films from microwave surface wave plasma activated above room temperature. *Diamond and Related Materials*, **2009**, 18, 465-468	3.5	3
12	Cutting carbon nanotubes for solar cell application. *Applied Physics Letters*, **2008**, 92, 123508	3.4	29
11	Effect of substrate bias voltage on the properties of diamond-like carbon thin films deposited by microwave surface wave plasma CVD. *Diamond and Related Materials*, **2008**, 17, 696-699	3.5	8
10	Preparation of diamond like carbon thin films above room temperature and their properties. *Diamond and Related Materials*, **2008**, 17, 680-683	3.5	9
9	Fullerene (C60) decoration in oxygen plasma treated multiwalled carbon nanotubes for photovoltaic application. *Applied Physics Letters*, **2008**, 92, 063508	3.4	40
8	Fluorine incorporated amorphous carbon thin films prepared by Surface Wave Microwave Plasma CVD. *Diamond and Related Materials*, **2008**, 17, 1697-1701	3.5	13
7	Optical band gap of nitrogenated amorphous carbon thin films synthesized by microwave surface wave plasma CVD. *Diamond and Related Materials*, **2008**, 17, 1666-1668	3.5	19
6	Taguchi optimization of device parameters for fullerene and Poly (3-octylthiophene) based heterojunction photovoltaic devices. *Diamond and Related Materials*, **2008**, 17, 799-803	3.5	6
5	Double-Walled Carbon Nanotubes-Incorporated Donor–Acceptor-Type Organic Photovoltaic Devices Using Poly(3-octylthiophene) and C60. *Japanese Journal of Applied Physics*, **2008**, 47, 1219-1222	1.4	11
4	Some aspects of nitrogen doped amorphous carbon thin films. *Conference Record of the IEEE Photovoltaic Specialists Conference*, **2008**,		1
3	Fluorination of multi-walled carbon nanotubes (MWNTs) via surface wave microwave (SW-MW) plasma treatment. *Physica E: Low-Dimensional Systems and Nanostructures*, **2008**, 41, 299-303	3	32
2	Carbon Thin Films from Plant-Derived Precursors. *Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry*, **2007**, 37, 467-471		5
1	Crystallographic Texture and Applications of Pure Cu Formed by Shot Peening. *Physica Status Solidi (B): Basic Research*,2100550	1.3	0