

Edwin Hang Tong Teo

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

123 papers	5,609 citations	28 h-index	73 g-index
136 ext. papers	6,520 ext. citations	7.6 avg, IF	5.61 L-index

#	Paper	IF	Citations
123	An effective thermal conductivity model for architected phase change material enhancer: Theoretical and experimental investigations. <i>International Journal of Heat and Mass Transfer</i> , 2021 , 176, 121364	4.9	4
122	Boron nanosheets induced microstructure and charge transfer tailoring in carbon nanofibrous mats towards highly efficient water splitting. <i>Nano Energy</i> , 2021 , 88, 106246	17.1	7
121	Effect of loading fraction of three-dimensional graphene foam (3D-C) on thermal, mechanical, and shape memory properties of 3D-C/SMP composite. <i>Materials Research Bulletin</i> , 2021 , 142, 111378	5.1	1
120	Imaging the defect distribution in 2D hexagonal boron nitride by tracing photogenerated electron dynamics. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 405106	3	3
119	Dielectric dispersion and superior thermal characteristics in isotope-enriched hexagonal boron nitride thin films: evaluation as thermally self-dissipating dielectrics for GaN transistors. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 9558-9568	7.1	2
118	One-dimensional hexagonal boron nitride conducting channel. <i>Science Advances</i> , 2020 , 6, eaay4958	14.3	19
117	Nitrogen-mediated aligned growth of hexagonal BN films for reliable high-performance InSe transistors. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 4421-4431	7.1	3
116	Versatile and scalable chemical vapor deposition of vertically aligned MoTe ₂ on reusable Mo foils. <i>Nano Research</i> , 2020 , 13, 2371-2377	10	2
115	On the recovery of 2DEG properties in vertically ordered h-BN deposited AlGa _N /Ga _N heterostructures on Si substrate. <i>Applied Physics Express</i> , 2020 , 13, 065508	2.4	4
114	Synthesis of Atomically Thin 1T-TaSe ₂ with a Strongly Enhanced Charge-Density-Wave Order. <i>Advanced Functional Materials</i> , 2020 , 30, 2001903	15.6	8
113	POSS enhanced 3D graphene - Polyimide film for atomic oxygen endurance in Low Earth Orbit space environment. <i>Polymer</i> , 2020 , 191, 122270	3.9	15
112	A flexible and ultra-broadband terahertz wave absorber based on graphene/vertically aligned carbon nanotube hybrids. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 7244-7252	7.1	9
111	Lightweight, Superelastic Boron Nitride/Polydimethylsiloxane Foam as Air Dielectric Substitute for Multifunctional Capacitive Sensor Applications. <i>Advanced Functional Materials</i> , 2020 , 30, 1909604	15.6	55
110	Experimental characterization of three-dimensional Graphene's thermoacoustic response and its theoretical modelling. <i>Carbon</i> , 2020 , 169, 382-394	10.4	2
109	Elastic Properties of 2D Ultrathin Tungsten Nitride Crystals Grown by Chemical Vapor Deposition. <i>Advanced Functional Materials</i> , 2019 , 29, 1902663	15.6	21
108	Double-Spiral Hexagonal Boron Nitride and Shear Strained Coalescence Boundary. <i>Nano Letters</i> , 2019 , 19, 4229-4236	11.5	9
107	Concurrent Inhibition and Redistribution of Spontaneous Emission from All Inorganic Perovskite Photonic Crystals. <i>ACS Photonics</i> , 2019 , 6, 1331-1337	6.3	27

106	Wafer-scale vertically aligned carbon nanotubes for broadband terahertz wave absorption. <i>Carbon</i> , 2019 , 154, 503-509	10.4	13
105	Manipulating Coherent Light-Matter Interaction: Continuous Transition between Strong Coupling and Weak Coupling in MoS ₂ Monolayer Coupled with Plasmonic Nanocavities. <i>Advanced Optical Materials</i> , 2019 , 7, 1900857	8.1	27
104	Phonon Polaritons in Monolayers of Hexagonal Boron Nitride. <i>Advanced Materials</i> , 2019 , 31, e1806603	24	44
103	A corner reflector of graphene Dirac fermions as a phonon-scattering sensor. <i>Nature Communications</i> , 2019 , 10, 2428	17.4	6
102	Flexible Ultra-Wideband Terahertz Absorber Based on Vertically Aligned Carbon Nanotubes. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 43671-43680	9.5	24
101	Boron Nitride Coated Three-Dimensional Graphene as an Electrically Insulating Electromagnetic Interference Shield 2019 ,		1
100	Guest Editorial Special Section on the Second Electron Devices Technology and Manufacturing (EDTM) Conference 2019. <i>IEEE Journal of the Electron Devices Society</i> , 2019 , 7, 1200-1200	2.3	
99	Supercompressible Coaxial Carbon Nanotube@Graphene Arrays with Invariant Viscoelasticity over -100 to 500 °C in Ambient Air. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 9688-9695	9.5	8
98	Human Rett-derived neuronal progenitor cells in 3D graphene scaffold as an in vitro platform to study the effect of electrical stimulation on neuronal differentiation. <i>Biomedical Materials (Bristol)</i> , 2018 , 13, 034111	3.5	25
97	A thermal study of amorphous and textured carbon and carbon nitride thin films via transient grating spectroscopy. <i>Carbon</i> , 2018 , 130, 355-361	10.4	4
96	Scalable Production of Few-Layer Boron Sheets by Liquid-Phase Exfoliation and Their Superior Supercapacitive Performance. <i>ACS Nano</i> , 2018 , 12, 1262-1272	16.7	99
95	Large-Area Atomic Layers of the Charge-Density-Wave Conductor TiSe. <i>Advanced Materials</i> , 2018 , 30, 1704382	24	43
94	. <i>IEEE Transactions on Device and Materials Reliability</i> , 2018 , 18, 273-278	1.6	1
93	Flexible thermal rectifier based on macroscopic PDMS@graphite composite film with asymmetric cone-shape interfaces. <i>Carbon</i> , 2018 , 126, 464-471	10.4	9
92	Localized emission from laser-irradiated defects in 2D hexagonal boron nitride. <i>2D Materials</i> , 2018 , 5, 015010	5.9	37
91	Smoothing of wrinkles in CVD-grown hexagonal boron nitride films. <i>Nanoscale</i> , 2018 , 10, 16243-16251	17.7	6
90	Novel timed and self-resistive heating shape memory polymer hybrid for large area and energy efficient application. <i>Carbon</i> , 2018 , 139, 626-634	10.4	10
89	Strong electro-optically active Ni-substituted Pb(Zr _{0.35} Ti _{0.65})O ₃ thin films: toward integrated active and durable photonic devices. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 12919-12927	7.1	4

88	Engineering of High-Density Thin-Layer Graphite Foam-Based Composite Architectures with Superior Compressibility and Excellent Electromagnetic Interference Shielding Performance. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 41707-41716	9.5	34
87	Gate voltage and temperature dependent Ti-graphene junction resistance toward straightforward p-n junction formation. <i>Journal of Applied Physics</i> , 2018 , 124, 215302	2.5	6
86	Wafer-Scale Vertically Aligned Carbon Nanotubes Locked by In Situ Hydrogelation toward Strengthening Static and Dynamic Compressive Responses. <i>Macromolecular Materials and Engineering</i> , 2018 , 303, 1800024	3.9	4
85	Landau Velocity for Collective Quantum Hall Breakdown in Bilayer Graphene. <i>Physical Review Letters</i> , 2018 , 121, 136804	7.4	5
84	Ultra-long wavelength Dirac plasmons in graphene capacitors. <i>JPhys Materials</i> , 2018 , 1, 01LT02	4.2	11
83	Concentric and Spiral Few-Layer Graphene: Growth Driven by Interfacial Nucleation vs Screw Dislocation. <i>Chemistry of Materials</i> , 2018 , 30, 6858-6866	9.6	14
82	Light emission from localised point defects induced in GaN crystal by a femtosecond-pulsed laser. <i>Optical Materials Express</i> , 2018 , 8, 2703	2.6	13
81	Concentric dopant segregation in CVD-grown N-doped graphene single crystals. <i>Applied Surface Science</i> , 2018 , 454, 121-129	6.7	3
80	Direct Observation of Indium Conductive Filaments in Transparent, Flexible, and Transferable Resistive Switching Memory. <i>ACS Nano</i> , 2017 , 11, 1712-1718	16.7	71
79	High-Density 3D-Boron Nitride and 3D-Graphene for High-Performance Nano-Thermal Interface Material. <i>ACS Nano</i> , 2017 , 11, 2033-2044	16.7	107
78	Control of Nanoplane Orientation in voBN for High Thermal Anisotropy in a Dielectric Thin Film: A New Solution for Thermal Hotspot Mitigation in Electronics. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7456-7464	9.5	9
77	Thermal Conductivity Enhancement of Coaxial Carbon@Boron Nitride Nanotube Arrays. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 14555-14560	9.5	27
76	Biocompatible Hydroxylated Boron Nitride Nanosheets/Poly(vinyl alcohol) Interpenetrating Hydrogels with Enhanced Mechanical and Thermal Responses. <i>ACS Nano</i> , 2017 , 11, 3742-3751	16.7	136
75	Composition-controlled synthesis and tunable optical properties of ternary boron carbonitride nanotubes. <i>RSC Advances</i> , 2017 , 7, 12511-12517	3.7	7
74	The Electrochemical Response of Single Crystalline Copper Nanowires to Atmospheric Air and Aqueous Solution. <i>Small</i> , 2017 , 13, 1603411	11	15
73	High-quality monolayer superconductor NbSe grown by chemical vapour deposition. <i>Nature Communications</i> , 2017 , 8, 394	17.4	199
72	A BairyPolymer/3D-foam hybrid for flexible high performance thermal gap filling applications in harsh environments. <i>RSC Advances</i> , 2017 , 7, 39292-39298	3.7	2
71	Multifunctional and highly compressive cross-linker-free sponge based on reduced graphene oxide and boron nitride nanosheets. <i>Chemical Engineering Journal</i> , 2017 , 328, 825-833	14.7	22

70	Tuning electro-optic susceptibility via strain engineering in artificial PZT multilayer films for high-performance broadband modulator. <i>Applied Surface Science</i> , 2017 , 425, 1059-1065	6.7	5
69	Investigation of electronic band structure and charge transfer mechanism of oxidized three-dimensional graphene as metal-free anodes material for dye sensitized solar cell application. <i>Chemical Physics Letters</i> , 2017 , 685, 442-450	2.5	3
68	Heat Dissipation Enhancement of 2.5D Package with 3D Graphene and 3D Boron Nitride Networks as Thermal Interface Material (TIM) 2016 ,		2
67	Microwave and Millimeter Wave Properties of Vertically-Aligned Single Wall Carbon Nanotubes Films. <i>Journal of Electronic Materials</i> , 2016 , 45, 2433-2441	1.9	1
66	Trimethylamine Borane: A New Single-Source Precursor for Monolayer h-BN Single Crystals and h-BCN Thin Films. <i>Chemistry of Materials</i> , 2016 , 28, 2180-2190	9.6	52
65	Effect of annealing temperature on physical properties of nanostructured TiN/3DG composite. <i>Materials and Design</i> , 2016 , 90, 524-531	8.1	3
64	Low-Temperature in Situ Growth of Graphene on Metallic Substrates and Its Application in Anticorrosion. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 502-10	9.5	56
63	Synthesis of aligned symmetrical multifaceted monolayer hexagonal boron nitride single crystals on resolidified copper. <i>Nanoscale</i> , 2016 , 8, 2434-44	7.7	65
62	Probing the Atomic Structures of Synthetic Monolayer and Bilayer Hexagonal Boron Nitride Using Electron Microscopy. <i>Applied Microscopy</i> , 2016 , 46, 217-226	1.1	2
61	Three-Dimensional Graphene: A Biocompatible and Biodegradable Scaffold with Enhanced Oxygenation. <i>Advanced Healthcare Materials</i> , 2016 , 5, 1177-91	10.1	24
60	Hexagonal Boron Nitride Thin Film for Flexible Resistive Memory Applications. <i>Advanced Functional Materials</i> , 2016 , 26, 2176-2184	15.6	119
59	Ferroelectric BiFeO ₃ thin-film optical modulators. <i>Applied Physics Letters</i> , 2016 , 108, 233502	3.4	7
58	Coaxial carbon@boron nitride nanotube arrays with enhanced thermal stability and compressive mechanical properties. <i>Nanoscale</i> , 2016 , 8, 11114-22	7.7	25
57	Enhancement of polyimide and 3D graphene-polyimide through thermoforming and its effect on mechanical properties and associated creep phenomenon. <i>Polymer Degradation and Stability</i> , 2016 , 134, 237-244	4.7	3
56	A wafer-scale graphene and ferroelectric multilayer for flexible and fast-switched modulation applications. <i>Nanoscale</i> , 2015 , 7, 14730-7	7.7	22
55	Direct growth of nanocrystalline hexagonal boron nitride films on dielectric substrates. <i>Applied Physics Letters</i> , 2015 , 106, 101901	3.4	47
54	Reduced Graphene Oxide/Boron Nitride Composite Film as a Novel Binder-Free Anode for Lithium Ion Batteries with Enhanced Performances. <i>Electrochimica Acta</i> , 2015 , 166, 197-205	6.7	53
53	Facile Synthesis of Millimeter-Scale Vertically Aligned Boron Nitride Nanotube Forests by Template-Assisted Chemical Vapor Deposition. <i>Chemistry of Materials</i> , 2015 , 27, 7156-7163	9.6	32

52	Vertically self-ordered orientation of nanocrystalline hexagonal boron nitride thin films for enhanced thermal characteristics. <i>Nanoscale</i> , 2015 , 7, 18984-91	7.7	23
51	Effect of titanium nitride coating on physical properties of three-dimensional graphene. <i>Applied Surface Science</i> , 2015 , 356, 399-407	6.7	2
50	Optical and electro-optic anisotropy of epitaxial PZT thin films. <i>Applied Physics Letters</i> , 2015 , 107, 031903.	3.4	20
49	3D Graphene-Infused Polyimide with Enhanced Electrothermal Performance for Long-Term Flexible Space Applications. <i>Small</i> , 2015 , 11, 6425-34	11	45
48	Controllable Synthesis of Highly Luminescent Boron Nitride Quantum Dots. <i>Small</i> , 2015 , 11, 6491-9	11	113
47	Growth of large single-crystalline two-dimensional boron nitride hexagons on electropolished copper. <i>Nano Letters</i> , 2014 , 14, 839-46	11.5	226
46	Band gap effects of hexagonal boron nitride using oxygen plasma. <i>Applied Physics Letters</i> , 2014 , 104, 163101	3.4	59
45	A systematic study of the atmospheric pressure growth of large-area hexagonal crystalline boron nitride film. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 1650	7.1	60
44	Configurable three-dimensional boron nitride-carbon architecture and its tunable electronic behavior with stable thermal performances. <i>Small</i> , 2014 , 10, 2992-9	11	43
43	Foams: Configurable Three-Dimensional Boron Nitride-Carbon Architecture and Its Tunable Electronic Behavior with Stable Thermal Performances (Small 15/2014). <i>Small</i> , 2014 , 10, 2966-2966	11	
42	Three-dimensional graphene based passively mode-locked fiber laser. <i>Optics Express</i> , 2014 , 22, 31458-65.	3.3	7
41	Core-shell CNT/NiSi nanowires as a high performance anode material for lithium ion batteries. <i>Carbon</i> , 2013 , 63, 54-60	10.4	38
40	Identifying the mechanisms of p-to-n conversion in unipolar graphene field-effect transistors. <i>Nanotechnology</i> , 2013 , 24, 195202	3.4	5
39	Growth of Carbon Nanotubes on Carbon/Cobalt Films with Different sp ² /sp ³ Ratios. <i>Journal of Nanomaterials</i> , 2013 , 2013, 1-5	3.2	
38	Electrical properties of textured carbon film formed by pulsed laser annealing. <i>Diamond and Related Materials</i> , 2012 , 23, 135-139	3.5	10
37	Effect of initial sp ³ content on bonding structure evolution of amorphous carbon upon pulsed laser annealing. <i>Diamond and Related Materials</i> , 2012 , 30, 48-52	3.5	10
36	Morphology-tunable assembly of periodically aligned Si nanowire and radial pn junction arrays for solar cell applications. <i>Applied Surface Science</i> , 2012 , 258, 6169-6176	6.7	15
35	Carbon nanotube bumps for the flip chip packaging system. <i>Nanoscale Research Letters</i> , 2012 , 7, 105	5	17

34	Thickness dependency of field emission in amorphous and nanostructured carbon thin films. <i>Nanoscale Research Letters</i> , 2012 , 7, 286	5	6
33	Phonon localization around vacancies in graphene nanoribbons. <i>Diamond and Related Materials</i> , 2012 , 23, 88-92	3.5	23
32	From Bulk to Monolayer MoS ₂ : Evolution of Raman Scattering. <i>Advanced Functional Materials</i> , 2012 , 22, 1385-1390	15.6	2710
31	Re-ordering chaotic carbon: origins and application of textured carbon. <i>Advanced Materials</i> , 2012 , 24, 4112-23	24	24
30	Thermal conductivity of nanocrystalline carbon films studied by pulsed photothermal reflectance. <i>Carbon</i> , 2012 , 50, 1428-1431	10.4	14
29	Tuning the Kapitza resistance in pillared-graphene nanostructures. <i>Journal of Applied Physics</i> , 2012 , 111, 013515	2.5	10
28	Thermal rectification reversal in carbon nanotubes. <i>Journal of Applied Physics</i> , 2012 , 112, 103515	2.5	5
27	Phononic and structural response to strain in wurtzite-gallium nitride nanowires. <i>Journal of Applied Physics</i> , 2012 , 111, 103506	2.5	10
26	Microstructure and through-film electrical characteristics of vertically aligned amorphous carbon films. <i>Diamond and Related Materials</i> , 2011 , 20, 290-293	3.5	11
25	Nanostructured carbon films with oriented graphitic planes. <i>Applied Physics Letters</i> , 2011 , 98, 123104	3.4	10
24	Compounded effect of vacancy on interfacial thermal transport in diamond-graphene nanostructures. <i>Diamond and Related Materials</i> , 2011 , 20, 1137-1142	3.5	5
23	Field emission enhancement and microstructural changes of carbon films by single pulse laser irradiation. <i>Carbon</i> , 2011 , 49, 1018-1024	10.4	26
22	Plasma density induced formation of nanocrystals in physical vapor deposited carbon films. <i>Carbon</i> , 2011 , 49, 1733-1744	10.4	30
21	Nano-patterning of through-film conductivity in anisotropic amorphous carbon induced using conductive atomic force microscopy. <i>Carbon</i> , 2011 , 49, 2679-2682	10.4	13
20	Characterization of CNT interconnection bumps implemented for 1st level flip chip packaging 2011 ,		3
19	Interpillar phononics in pillared-graphene hybrid nanostructures. <i>Journal of Applied Physics</i> , 2011 , 110, 083502	2.5	14
18	Thermal transport around tears in graphene. <i>Journal of Applied Physics</i> , 2011 , 109, 043508-043508-6	2.5	3
17	Impact of the CNT growth process on gold metallization dedicated to RF interconnect applications. <i>International Journal of Microwave and Wireless Technologies</i> , 2010 , 2, 463-469	0.8	7

16	Flux-mediated diffuse mismatch model. <i>Applied Physics Letters</i> , 2010 , 97, 121917	3.4	14
15	Quantitative, nanoscale mapping of sp ² percentage and crystal orientation in carbon multilayers. <i>Carbon</i> , 2009 , 47, 94-101	10.4	20
14	The origin of preferred orientation during carbon film growth. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 225003	1.8	13
13	Superhydrophobic carbon nanotube/amorphous carbon nanosphere hybrid film. <i>Diamond and Related Materials</i> , 2009 , 18, 1235-1238	3.5	20
12	Monochromatic photoluminescence obtained from embedded ZnO nanodots in an ultrahard diamond-like carbon matrix. <i>Diamond and Related Materials</i> , 2008 , 17, 167-170	3.5	12
11	Fabrication and Characterization of Multilayer Amorphous Carbon Films for Microcantilever Devices. <i>IEEE Sensors Journal</i> , 2008 , 8, 616-620	4	3
10	Mechanical properties of gradient pulse biased amorphous carbon film. <i>Thin Solid Films</i> , 2008 , 516, 5364-5367	5.67	4
9	Abrupt stress induced transformation in amorphous carbon films with a highly conductive transition phase. <i>Physical Review Letters</i> , 2008 , 100, 176101	7.4	75
8	A Carbon Nanomattress: A New Nanosystem with Intrinsic, Tunable, Damping Properties. <i>Advanced Materials</i> , 2007 , 19, 2941-2945	24	41
7	Self-assembled Ni nanoclusters in a diamond-like carbon matrix. <i>International Journal of Nanotechnology</i> , 2007 , 4, 424	1.5	3
6	Mechanical properties of alternating high-low sp ³ content thick non-hydrogenated diamond-like amorphous carbon films. <i>Diamond and Related Materials</i> , 2007 , 16, 1882-1886	3.5	21
5	Thermal stability of nonhydrogenated multilayer amorphous carbon prepared by the filtered cathodic vacuum arc technique. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2007 , 25, 421-424	2.9	1
4	Vibratory response of diamond-like amorphous carbon cantilevers under different temperatures. <i>Diamond and Related Materials</i> , 2004 , 13, 1980-1983	3.5	4
3	3D Porous Graphene Films with Large-Area In-Plane Exterior Skins. <i>Advanced Materials Interfaces</i> , 2010 , 3, 19386	3.6	0
2	A Flexible and Ultra-Wideband Terahertz Wave Absorber Based on Pyramid-Shaped Carbon Nanotube Array via Femtosecond-Laser Microprocessing and Two-Step Transfer Technique. <i>Advanced Materials Interfaces</i> , 2010 , 2, 2414	4.6	1
1	Electrostatic Coupling in MoS ₂ /CuInP ₂ S ₆ Ferroelectric vdW Heterostructures. <i>Advanced Functional Materials</i> , 2013 , 23, 1359	15.6	0