Wei-Yen Woon

List of Publications by Year
in descending order

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		516561	552653
68	874	16	26
papers	citations	h-index	g-index

69	69	69	1401
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Towards the continuous production of high crystallinity graphene via electrochemical exfoliation with molecular in situ encapsulation. Nanoscale, 2015, 7, 15362-15373.	2.8	112
2	A mechanistic study of molecular CO2 interaction and adsorption on carbon implanted SnS2 thin film for photocatalytic CO2 reduction activity. Nano Energy, 2020, 72, 104717.	8.2	55
3	Shear Banding in Mesoscopic Dusty Plasma Liquids. Physical Review Letters, 2004, 93, 220602.	2.9	47
4	Electrical Tunable PVDF/Graphene Membrane for Controlled Molecule Separation. Chemistry of Materials, 2020, 32, 5750-5758.	3.2	39
5	Chemical composition of two-photon oxidized graphene. Carbon, 2017, 115, 77-82.	5.4	36
6	Nucleation and growth dynamics of graphene on oxygen exposed copper substrate. Carbon, 2016, 103, 384-390.	5.4	35
7	Defect Turbulence in Quasi-2D Creeping Dusty-Plasma Liquids. Physical Review Letters, 2004, 92, 065003.	2.9	32
8	Contact Angle Hysteresis on Graphene Surfaces and Hysteresis-free Behavior on Oil-infused Graphite Surfaces. Applied Surface Science, 2016, 385, 153-161.	3.1	31
9	Optical Forging of Graphene into Three-Dimensional Shapes. Nano Letters, 2017, 17, 6469-6474.	4.5	29
10	Formation of p-type ZnO thin film through co-implantation. Nanotechnology, 2017, 28, 035603.	1.3	23
11	Synthesis of Ultrathin Composition Graded Doped Lateral WSe2/WS2Heterostructures. ACS Applied Materials & Interfaces, 2017, 9, 34204-34212.	4.0	22
12	Rapid polymer microchannel fabrication by hot roller embossing process. Microsystem Technologies, 2012, 18, 713-722.	1.2	20
13	Spectroscopic and Electrical Characterizations of Low-Damage Phosphorous-Doped Graphene via Ion Implantation. ACS Applied Materials & Interfaces, 2019, 11, 47289-47298.	4.0	20
14	Photoluminescence Characteristics of Multilayer HfSe₂ Synthesized on Sapphire Using Ion Implantation. Advanced Materials Interfaces, 2018, 5, 1701619.	1.9	19
15	Local anodic oxidation kinetics of chemical vapor deposition graphene supported on a thin oxide buffered silicon template. Carbon, 2013, 54, 336-342.	5.4	18
16	Characteristics of graphene grown through low power capacitive coupled radio frequency plasma enhanced chemical vapor deposition. Carbon, 2020, 159, 570-578.	5.4	18
17	Giant defect emission enhancement from ZnO nanowires through desulfurization process. Scientific Reports, 2020, 10, 4237.	1.6	18
18	Nucleation and growth kinetics of multi-layered graphene on copper substrate. Carbon, 2018, 135, 118-124.	5.4	17

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19	On the nature of defects created on graphene by scanning probe lithography under ambient conditions. Carbon, 2014, 80, 318-324.	5.4	15
20	Nucleation and growth dynamics of graphene grown through low power capacitive coupled radio frequency plasma enhanced chemical vapor deposition. Carbon, 2019, 154, 420-427.	5.4	13
21	A low-damage plasma surface modification method of stacked graphene bilayers for configurable wettability and electrical properties. Nanotechnology, 2019, 30, 245709.	1.3	13
22	Entrapment of pusher and puller bacteria near a solid surface. Physical Review E, 2018, 98, .	0.8	12
23	Growth of twisted bilayer graphene through two-stage chemical vapor deposition. Nanotechnology, 2020, 31, 435603.	1.3	12
24	Reduction-oxidation dynamics of oxidized graphene: Functional group composition dependent path to reduction. Carbon, 2018, 129, 396-402.	5.4	11
25	Discriminative detection of laser-accelerated multi-MeV carbon ions utilizing solid state nuclear track detectors. Scientific Reports, 2021, 11, 16283.	1.6	11
26	Effects of Ï€-electron in humidity sensing of artificially stacked graphene bilayers modified with carboxyl and hydroxyl groups. Sensors and Actuators B: Chemical, 2019, 301, 127020.	4.0	10
27	Using Exciton/Trion Dynamics to Spatially Monitor the Catalytic Activities of MoS₂ during the Hydrogen Evolution Reaction. ACS Nano, 2022, 16, 4298-4307.	7.3	10
28	Strain-doping coupling dynamics in phosphorus doped Si:C formed by solid phase epitaxial regrowth. Applied Physics Letters, 2010, 97, .	1.5	9
29	Effect of impurities on thermal stability of pseudomorphically strained Si:C layer. Applied Physics Letters, 2011, 98, 141918.	1.5	9
30	Vertical Al2Se3/MoSe2 heterojunction on sapphire synthesized using ion beam. RSC Advances, 2017, 7, 10154-10157.	1.7	9
31	Local oxidation and reduction of graphene. Nanotechnology, 2017, 28, 395704.	1.3	9
32	Large-area suspended graphene as a laser target to produce an energetic ion beam. High Power Laser Science and Engineering, 2017, 5, .	2.0	8
33	Enhancing Cancer Cell Collective Motion and Speeding up Confluent Endothelial Dynamics through Cancer Cell Invasion and Aggregation. Physical Review Letters, 2018, 121, 018101.	2.9	8
34	Two-dimensional dopant profiling by electrostatic force microscopy using carbon nanotube modified cantilevers. Nanotechnology, 2008, 19, 325703.	1.3	7
35	Collective sub-diffusive dynamics in bacterial carpet microfluidic channel. Applied Physics Letters, 2012, 100, .	1.5	7
36	Frictional characteristics of nano-confined water mediated hole-doped single-layer graphene on silica surface. Nanotechnology, 2019, 30, 045706.	1.3	7

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37	Ultralowâ€k Amorphous Boron Nitride Based on Hexagonal Ring Stacking Framework for 300 mm Silicon Technology Platform. Advanced Materials Technologies, 2022, 7, .	3.0	7
38	Dusty plasma liquids. Plasma Physics and Controlled Fusion, 2005, 47, A273-A281.	0.9	6
39	Collective flow dynamics across a bacterial carpet: Understanding the forces generated. Applied Physics Letters, 2014, 105, 203702.	1.5	6
40	Graphene reduction dynamics unveiled. 2D Materials, 2015, 2, 031003.	2.0	6
41	Structural Reconstruction of Reduced Graphene. Journal of Physical Chemistry C, 2018, 122, 15786-15791.	1.5	6
42	Direct Synthesis of Large-Scale Multilayer TaSe2 on SiO2/Si Using Ion Beam Technology. ACS Omega, 2019, 4, 17536-17541.	1.6	6
43	Revisiting Oxidation Scanning Probe Lithography of Graphene: Balance of Water Condensation Energy and Electrostatic Energy. Journal of Physical Chemistry C, 2019, 123, 25422-25427.	1.5	6
44	Achieving junction stability in heavily doped epitaxial Si:P. Materials Science in Semiconductor Processing, 2021, 127, 105672.	1.9	6
45	Controlling the Electron Concentration for Surface-Enhanced Raman Spectroscopy. ACS Photonics, 2021, 8, 2410-2416.	3.2	6
46	Nanoscale doping fluctuation resolved by electrostatic force microscopy via the effect of surface band bending. Applied Physics Letters, 2008, 93, .	1.5	5
47	Surface relief terraces and self-assembled nanostructures in thin block copolymer films with solvent annealing. Polymer, 2012, 53, 4827-4833.	1.8	5
48	Fluorescence lifetime, dipole orientation and bilayer polymer films. Chemical Physics Letters, 2017, 686, 212-217.	1.2	5
49	MEH-PPV photophysics: insights from the influence of a nearby 2D quencher. Nanotechnology, 2019, 30, 065702.	1.3	5
50	Ion implantation of graphene with keV carbon ions: Defect types, evolution and substrate effects. Vacuum, 2019, 166, 72-78.	1.6	4
51	Carbon re-incorporation in phosphorus-doped Si1â^'yCy epitaxial layers during thermal annealing. Journal of Alloys and Compounds, 2013, 553, 30-34.	2.8	3
52	On the doping limit for strain stability retention in phosphorus doped Si:C. Journal of Applied Physics, 2014, 116, 033503.	1.1	3
53	Impurity-tuned non-equilibrium phase transition in a bacterial carpet. Applied Physics Letters, 2016, 108, .	1.5	3
54	Photoluminescence Enhancement in WS₂ Nanosheets Passivated with Oxygen Ions: Implications for Selective Area Doping. ACS Applied Nano Materials, 2021, 4, 11693-11699.	2.4	3

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55	Micro-excitations in Coulomb liquids. Plasma Physics and Controlled Fusion, 2004, 46, B449-B456.	0.9	2
56	Impact of ion implantation boundary dimensionality on boron transient diffusion in submicron scale patterns. Applied Physics Letters, 2010, 97, 121907.	1.5	2
57	Temperature Effect of Low-Damage Plasma for Nitrogen-Modification of Graphene. ECS Journal of Solid State Science and Technology, 2020, 9, 121007.	0.9	2
58	Exploring the mechanical properties of nanometer-thick elastic films through micro-drop impinging on large-area suspended graphene. Nanoscale, 2021, 14, 42-48.	2.8	2
59	Variations in the Effective Work Function of Graphene in a Sliding Electrical Contact Interface under Ambient Conditions. ACS Applied Materials & Interfaces, 2022, 14, 27328-27338.	4.0	2
60	Effect of hydrogen implantation on low-temperature activation of boron in silicon. Nuclear Instruments & Methods in Physics Research B, 2021, 505, 58-63.	0.6	1
61	Microdynamics of dusty plasma liquids in narrow channel: from disorder to order. Journal of Physics A, 2003, 36, 6103-6107.	1.6	0
62	Fluctuation rheology using polymers. Europhysics Letters, 2004, 65, 420-426.	0.7	0
63	2D Dusty Plasma Liquids in Mesoscopic Channels. Physica Scripta, 2004, T107, 98.	1.2	0
64	Thermal instability of pseudomorphically strained phosphorus doped Si:C alloy. Nuclear Instruments & Methods in Physics Research B, 2012, 282, 85-87.	0.6	0
65	Suppression of transient enhanced diffusion in sub-micron patterned silicon template by dislocation loops formation. AIP Advances, 2015, 5, 107128.	0.6	0
66	Revisiting the role of strain in solid-phase epitaxial regrowth of ion-implanted silicon. Applied Physics Express, 2015, 8, 021302.	1.1	0
67	Controlling Dipole Orientation Near A Dielectric Interface Via a Buffer Layer. , 2016, , .		0
68	Roles of structural and chemical defects in graphene on quenching of nearby fluorophores. Carbon, 2020, 165, 412-420.	5.4	0