Vincent C Tung

List of Publications by Year in Descending Order

84 papers	13,047 citations	30 h-index	93 g-index
93 ext. papers	14,597 ext. citations	16 avg, IF	6.64 L-index

#	Paper	IF	Citations
84	Wafer-scale single-orientation 2D layers by atomic edge-guided epitaxial growth.. *Chemical Society Reviews*, **2022**,	58.5	2
83	Direct Growth of Magnetic Non-van der Waals Cr2X3(X = S, Se, and Te) on SiO2/Si Substrates through the Promotion of KOH. *Chemistry of Materials*, **2022**, 34, 2342-2351	9.6	2
82	Two-Dimensional CsAgBiBr/WS Heterostructure-Based Photodetector with Boosted Detectivity via Interfacial Engineering.. *ACS Nano*, **2022**,	16.7	5
81	Unusual Activity of Rationally Designed Cobalt Phosphide/Oxide Heterostructure Composite for Hydrogen Production in Alkaline Medium.. *ACS Nano*, **2022**,	16.7	6
80	High-□perovskite membranes as insulators for two-dimensional transistors.. *Nature*, **2022**, 605, 262-267	50.4	16
79	Mo3+ hydride as the common origin of H2 evolution and selective NADH regeneration in molybdenum sulfide electrocatalysts. *Nature Catalysis*, **2022**, 5, 397-404	36.5	4
78	The development of integrated circuits based on two-dimensional materials. *Nature Electronics*, **2021**, 4, 775-785	28.4	26
77	Lithium-Ion Desolvation Induced by Nitrate Additives Reveals New Insights into High Performance Lithium Batteries. *Advanced Functional Materials*, **2021**, 31, 2101593	15.6	27
76	Conducting Polyaniline for Antifouling Ultrafiltration Membranes: Solutions and Challenges. *Nano Letters*, **2021**, 21, 3699-3707	11.5	6
75	Self-healing flexible/stretchable energy storage devices. *Materials Today*, **2021**, 44, 78-104	21.8	23
74	Type-I Energy Level Alignment at the PTCDA-Monolayer MoS Interface Promotes Resonance Energy Transfer and Luminescence Enhancement. *Advanced Science*, **2021**, 8, 2100215	13.6	1
73	Temperature-Dependent Electronic Ground-State Charge Transfer in van der Waals Heterostructures. *Advanced Materials*, **2021**, 33, e2008677	24	2
72	Two-dimensional plasmonic polarons in n-doped monolayer MoS2. *Physical Review B*, **2021**, 103,	3.3	1
71	Ultralow contact resistance between semimetal and monolayer semiconductors. *Nature*, **2021**, 593, 211-217	50.4	154
70	Regulating Oxygen Substituents with Optimized Redox Activity in Chemically Reduced Graphene Oxide for Aqueous Zn-Ion Hybrid Capacitor. *Advanced Functional Materials*, **2021**, 31, 2007843	15.6	49
69	Strain-Directed Layer-By-Layer Epitaxy Toward van der Waals Homo- and Heterostructures **2021**, 3, 442-453		3
68	Van der Waals Heterostructures: Temperature-Dependent Electronic Ground-State Charge Transfer in van der Waals Heterostructures (Adv. Mater. 29/2021). *Advanced Materials*, **2021**, 33, 2170229	24	

67	The Schottky-Mott Rule Expanded for Two-Dimensional Semiconductors: Influence of Substrate Dielectric Screening. *ACS Nano*, **2021**, 15, 14794-14803	16.7	2
66	3D Crumpled Ultrathin 1T MoS for Inkjet Printing of Mg-Ion Asymmetric Micro-supercapacitors. *ACS Nano*, **2020**, 14, 7308-7318	16.7	55
65	Unveiling defect-mediated carrier dynamics in monolayer semiconductors by spatiotemporal microwave imaging. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 13908-13913	11.5	16
64	Liquid phase exfoliation of MoS2 and WS2 in aqueous ammonia and their application in highly efficient organic solar cells. *Journal of Materials Chemistry C*, **2020**, 8, 5259-5264	7.1	46
63	Protection of Lithium Anode by a Highly Porous PVDF Membrane for High-Performance Li S Battery. *ACS Applied Energy Materials*, **2020**, 3, 2510-2515	6.1	11
62	Electropolymerization growth of an ultrathin, compact, conductive and microporous (UCCM) polycarbazole membrane for high energy Li S batteries. *Nano Energy*, **2020**, 73, 104769	17.1	15
61	Steam-Assisted Chemical Vapor Deposition of Zeolitic Imidazolate Framework **2020**, 2, 485-491		14
60	Asymmetric cathode membrane with tunable positive charge networks for highly stable Li S batteries. *Energy Storage Materials*, **2020**, 25, 33-40	19.4	7
59	Mixed-dimensional MXene-hydrogel heterostructures for electronic skin sensors with ultrabroad working range. *Science Advances*, **2020**, 6,	14.3	74
58	Optoelectronic Ferroelectric Domain-Wall Memories Made from a Single Van Der Waals Ferroelectric. *Advanced Functional Materials*, **2020**, 30, 2004206	15.6	26
57	Additive manufacturing assisted van der Waals integration of 3D/3D hierarchically functional nanostructures. *Communications Materials*, **2020**, 1,	6	4
56	Epitaxial Growth and Determination of Band Alignment of Bi2Te3 WSe2 Vertical van der Waals Heterojunctions **2020**, 2, 1351-1359		5
55	Ledge-directed epitaxy of continuously self-aligned single-crystalline nanoribbons of transition metal dichalcogenides. *Nature Materials*, **2020**, 19, 1300-1306	27	41
54	Aberration-corrected STEM imaging of 2D materials: Artifacts and practical applications of threefold astigmatism. *Science Advances*, **2020**, 6,	14.3	7
53	2D Materials Characterization: Should We Rely on HR STEM Imaging?. *Microscopy and Microanalysis*, **2019**, 25, 1638-1639	0.5	
52	Demonstration of the key substrate-dependent charge transfer mechanisms between monolayer MoS2 and molecular dopants. *Communications Physics*, **2019**, 2,	5.4	21
51	Electrochemical Conversion of CO2 to 2-Bromoethanol in a Membraneless Cell. *ACS Energy Letters*, **2019**, 4, 600-605	20.1	6
50	Gate-Tunable and Multidirection-Switchable Memristive Phenomena in a Van Der Waals Ferroelectric. *Advanced Materials*, **2019**, 31, e1901300	24	67

49	Design and Mechanistic Study of Highly Durable Carbon-Coated Cobalt Diphosphide Core-Shell Nanostructure Electrocatalysts for the Efficient and Stable Oxygen Evolution Reaction. *ACS Applied Materials & Interfaces*, **2019**, 11, 20752-20761	9.5	14
48	2D Materials: Metal-Guided Selective Growth of 2D Materials: Demonstration of a Bottom-Up CMOS Inverter (Adv. Mater. 18/2019). *Advanced Materials*, **2019**, 31, 1970132	24	0
47	Metal-Guided Selective Growth of 2D Materials: Demonstration of a Bottom-Up CMOS Inverter. *Advanced Materials*, **2019**, 31, e1900861	24	28
46	Growth of 2H stacked WSe2 bilayers on sapphire. *Nanoscale Horizons*, **2019**, 4, 1434-1442	10.8	11
45	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS as a Replacement for PEDOT:PSS. *Advanced Materials*, **2019**, 31, e1902965	24	384
44	Printable magnesium ion quasi-solid-state asymmetric supercapacitors for flexible solar-charging integrated units. *Nature Communications*, **2019**, 10, 4913	17.4	90
43	High-throughput label-free microcontact printing graphene-based biosensor for valley fever. *Colloids and Surfaces B: Biointerfaces*, **2018**, 170, 219-223	6	3
42	Tuning Excitonic Properties of Pure and Mixed Halide Perovskite Thin Films via Interfacial Engineering. *Advanced Materials Interfaces*, **2018**, 5, 1800209	4.6	0
41	Graphene-based Oxygen Reduction Electrodes for Low Temperature Solid Oxide Fuel Cells. *Fuel Cells*, **2017**, 17, 344-352	2.9	6
40	Structurally Deformed MoS for Electrochemically Stable, Thermally Resistant, and Highly Efficient Hydrogen Evolution Reaction. *Advanced Materials*, **2017**, 29, 1703863	24	79
39	Stabilization of the Cubic Crystalline Phase in Organometal Halide Perovskite Quantum Dots via Surface Energy Manipulation. *Journal of Physical Chemistry Letters*, **2017**, 8, 5378-5384	6.4	20
38	Bioinspired Dimensional Transition: Structurally Deformed MoS2 for Electrochemically Stable, Thermally Resistant, and Highly Efficient Hydrogen Evolution Reaction (Adv. Mater. 44/2017). *Advanced Materials*, **2017**, 29,	24	1
37	Low temperature excitonic spectroscopy and dynamics as a probe of quality in hybrid perovskite thin films. *Physical Chemistry Chemical Physics*, **2016**, 18, 28428-28433	3.6	14
36	Nature inspiring processing route toward high throughput production of perovskite photovoltaics. *Journal of Materials Chemistry A*, **2016**, 4, 6989-6997	13	27
35	Electrohydrodynamically Assisted Deposition of Efficient Perovskite Photovoltaics. *Advanced Materials Interfaces*, **2016**, 3, 1500762	4.6	18
34	Electrohydrodynamic-assisted Assembly of Hierarchically Structured, 3D Crumpled Nanostructures for Efficient Solar Conversions. *Scientific Reports*, **2016**, 6, 38701	4.9	5
33	Hybrid Perovskite Thin Films as Highly Efficient Luminescent Solar Concentrators. *Advanced Optical Materials*, **2016**, 4, 2126-2132	8.1	50
32	Flexible all-carbon photovoltaics with improved thermal stability. *Journal of Solid State Chemistry*, **2015**, 224, 94-101	3.3	1

31	Capillarity-Assisted Electrostatic Assembly of Hierarchically Functional 3D Graphene: TiO2 Hybrid Photoanodes. *Advanced Materials Interfaces*, **2015**, 2, 1500292	4.6	4
30	Photoanodes: Capillarity-Assisted Electrostatic Assembly of Hierarchically Functional 3D Graphene: TiO2 Hybrid Photoanodes (Adv. Mater. Interfaces 17/2015). *Advanced Materials Interfaces*, **2015**, 2,	4.6	1
29	Novel Hybridization Approaches for Graphene-Based Nanocomposites. *Science of Advanced Materials*, **2015**, 7, 1962-1978	2.3	5
28	Bulky rigid substitutions: A route to high electron mobility and high solid-state luminescence efficiency of perylene diimide. *Organic Electronics*, **2014**, 15, 281-285	3.5	18
27	Carbon Nanotube Chirality Determines Efficiency of Electron Transfer to Fullerene in All-Carbon Photovoltaics. *Journal of Physical Chemistry Letters*, **2013**, 4, 2914-2918	6.4	43
26	Structure□tability relationships for graphene-wrapped fullerene-coated carbon nanotubes. *Carbon* , **2013**, 61, 458-466	10.4	12
25	Graphene oxide based conductive glue as a binder for ultracapacitor electrodes. *Journal of Materials Chemistry*, **2012**, 22, 12993		36
24	Towards solution processed all-carbon solar cells: a perspective. *Energy and Environmental Science*, **2012**, 5, 7810	35.4	81
23	Graphene Oxide:Single-Walled Carbon Nanotube-Based Interfacial Layer for All-Solution-Processed Multijunction Solar Cells in Both Regular and Inverted Geometries. *Advanced Energy Materials*, **2012** , 2, 299-303	21.8	47
22	Graphene Oxide:Single-Walled Carbon Nanotube-Based Interfacial Layer for All-Solution-Processed Multijunction Solar Cells in Both Regular and Inverted Geometries (Adv. Energy Mater. 3/2012). *Advanced Energy Materials*, **2012**, 2, 298-298	21.8	
21	The effects of thionyl chloride on the properties of graphene and graphene□arbon nanotube composites. *Journal of Materials Chemistry*, **2011**, 21, 3391		58
20	Surfactant-free water-processable photoconductive all-carbon composite. *Journal of the American Chemical Society*, **2011**, 133, 4940-7	16.4	191
19	Sticky interconnect for solution-processed tandem solar cells. *Journal of the American Chemical Society*, **2011**, 133, 9262-5	16.4	162
18	Water Processable Graphene Oxide:Single Walled Carbon Nanotube Composite as Anode Modifier for Polymer Solar Cells. *Advanced Energy Materials*, **2011**, 1, 1052-1057	21.8	83
17	Water Processable Graphene Oxide:Single Walled Carbon Nanotube Composite as Anode Modifier for Polymer Solar Cells (Adv. Energy Mater. 6/2011). *Advanced Energy Materials*, **2011**, 1, 1051-1051	21.8	1
16	All-Carbon Composite for Photovoltaics. *Materials Research Society Symposia Proceedings*, **2011**, 1344, 1		
15	Versatile solution for growing thin films of conducting polymers. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 19673-8	11.5	49
14	Graphene oxide as surfactant sheets. *Pure and Applied Chemistry*, **2010**, 83, 95-110	2.1	326

13	Honeycomb carbon: a review of graphene. *Chemical Reviews*, **2010**, 110, 132-45	68.1	5411
12	Graphene oxide nanocolloids. *Journal of the American Chemical Society*, **2010**, 132, 17667-9	16.4	320
11	A one-step, solvothermal reduction method for producing reduced graphene oxide dispersions in organic solvents. *ACS Nano*, **2010**, 4, 3845-52	16.7	509
10	Stenciling graphene, carbon nanotubes, and fullerenes using elastomeric lift-off membranes. *Advanced Materials*, **2010**, 22, 897-901	24	18
9	Soft Transfer Printing of Chemically Converted Graphene. *Advanced Materials*, **2009**, 21, 2098-2102	24	166
8	High-throughput solution processing of large-scale graphene. *Nature Nanotechnology*, **2009**, 4, 25-9	28.7	1778
7	Practical chemical sensors from chemically derived graphene. *ACS Nano*, **2009**, 3, 301-6	16.7	1215
6	Low-temperature solution processing of graphene-carbon nanotube hybrid materials for high-performance transparent conductors. *Nano Letters*, **2009**, 9, 1949-55	11.5	899
5	Temperature dependent Raman spectroscopy of chemically derived graphene. *Applied Physics Letters*, **2008**, 93, 193119	3.4	42
4	Anisotropy in Organic Single-Crystal Photovoltaic Characteristics. *Advanced Materials*, **2008**, 20, 435-438	24	70
3	Plasmon-Enhanced Solar-Driven Hydrogen Evolution Using Titanium Nitride Metasurface Broadband Absorbers. *ACS Photonics*,	6.3	5
2	Performance Limits and Potential of Multilayer Graphene□Tungsten Diselenide Heterostructures. *Advanced Electronic Materials*,2100355	6.4	0
1	Current Progress and Scalable Approach toward the Synthesis of 2D Metal□Organic Frameworks. *Advanced Materials Interfaces*,2102560	4.6	1