

# Tawfique Hasan

## List of Publications by Year in Descending Order

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**Version:** 2024-04-25

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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

16,677  
citations

50  
h-index

129  
g-index

140  
ext. papers

19,214  
ext. citations

11.1  
avg, IF

6.7  
L-index

#	Paper	IF	Citations
123	Thickness modulations enable multi-functional spin valves based on Van der Waals hetero-structure. <i>Nano Today</i> , <b>2022</b> , 42, 101373	17.9	2
122	Hydrophilic bi-functional B-doped g-C3N4 hierarchical architecture for excellent photocatalytic H2O2 production and photoelectrochemical water splitting. <i>Journal of Energy Chemistry</i> , <b>2022</b> , 70, 236-247	12	4
121	Single-cell yolk-shell nanoencapsulation for long-term viability with size-dependent permeability and molecular recognition. <i>National Science Review</i> , <b>2021</b> , 8, nwa097	10.8	8
120	Interwoven scaffolded porous titanium oxide nanocubes/carbon nanotubes framework for high-performance sodium-ion battery. <i>Journal of Energy Chemistry</i> , <b>2021</b> , 59, 38-46	12	11
119	Miniaturization of optical spectrometers. <i>Science</i> , <b>2021</b> , 371,	33.3	66
118	Printed aerogels: chemistry, processing, and applications. <i>Chemical Society Reviews</i> , <b>2021</b> , 50, 3842-3888	58.5	34
117	Engineering symmetry breaking in 2D layered materials. <i>Nature Reviews Physics</i> , <b>2021</b> , 3, 193-206	23.6	45
116	Giant All-Optical Modulation of Second-Harmonic Generation Mediated by Dark Excitons. <i>ACS Photonics</i> , <b>2021</b> , 8, 2320-2328	6.3	3
115	Optimizing inner voids in yolk-shell TiO2 nanostructure for high-performance and ultralong-life lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , <b>2021</b> , 417, 129241	14.7	15
114	Hexagonal Boron Nitride-Enhanced Optically Transparent Polymer Dielectric Inks for Printable Electronics. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2002339	15.6	16
113	High-Power Femtosecond Pulse Generation From an All-Fiber Er-Doped Chirped Pulse Amplification System. <i>IEEE Photonics Journal</i> , <b>2020</b> , 12, 1-8	1.8	2
112	Machine-intelligent inkjet-printed Fe2O3/rGO towards NO2 quantification in ambient humidity. <i>Sensors and Actuators B: Chemical</i> , <b>2020</b> , 321, 128446	8.5	8
111	Unprecedented and highly stable lithium storage capacity of (001) faceted nanosheet-constructed hierarchically porous TiO/rGO hybrid architecture for high-performance Li-ion batteries. <i>National Science Review</i> , <b>2020</b> , 7, 1046-1058	10.8	27
110	Printed gas sensors. <i>Chemical Society Reviews</i> , <b>2020</b> , 49, 1756-1789	58.5	106
109	Environmentally stable black phosphorus saturable absorber for ultrafast laser. <i>Nanophotonics</i> , <b>2020</b> , 9, 2445-2449	6.3	10
108	Broad bandwidth dual-wavelength fiber laser simultaneously delivering stretched pulse and dissipative soliton. <i>Optics Express</i> , <b>2020</b> , 28, 6937-6944	3.3	9
107	Sub-150 fs dispersion-managed soliton generation from an all-fiber Tm-doped laser with BP-SA. <i>Optics Express</i> , <b>2020</b> , 28, 34104-34110	3.3	6

106	Soliton Mode-Locked Large-Mode-Area Tm-Doped Fiber Oscillator. <i>IEEE Photonics Technology Letters</i> , <b>2020</b> , 32, 117-120	2.2	5
105	A general ink formulation of 2D crystals for wafer-scale inkjet printing. <i>Science Advances</i> , <b>2020</b> , 6, eaba5029	4.9	43
104	Hierarchical Zeolite Single-Crystal Reactor for Excellent Catalytic Efficiency. <i>Matter</i> , <b>2020</b> , 3, 1226-1245	12.7	26
103	A Fully Printed Flexible MoS <sub>2</sub> Memristive Artificial Synapse with Femtojoule Switching Energy. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900740	6.4	71
102	Single-nanowire spectrometers. <i>Science</i> , <b>2019</b> , 365, 1017-1020	33.3	130
101	Applications of Printed 2D Materials <b>2019</b> , 179-216		1
100	Printing of Graphene and Related 2D Materials <b>2019</b> ,		18
99	Structures, Properties and Applications of 2D Materials <b>2019</b> , 19-51		2
98	2D Material Production Methods <b>2019</b> , 53-101		2
97	Printing Technologies <b>2019</b> , 135-178		2
96	2D Ink Design <b>2019</b> , 103-134		2
95	Fiber-Integrated Reversibly Wavelength-Tunable Nanowire Laser Based on Nanocavity Mode Coupling. <i>ACS Nano</i> , <b>2019</b> , 13, 9965-9972	16.7	7
94	Conformal Printing of Graphene for Single- and Multilayered Devices onto Arbitrarily Shaped 3D Surfaces. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1807933	15.6	31
93	Inkjet-printed CMOS-integrated graphene-metal oxide sensors for breath analysis. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	20
92	Lattice Dynamics, Phonon Chirality, and Spin-Phonon Coupling in 2D Itinerant Ferromagnet Fe <sub>3</sub> GeTe <sub>2</sub> . <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904734	15.6	33
91	Q-switched Dy:ZBLAN fiber lasers beyond 3 μs: comparison of pulse generation using acousto-optic modulation and inkjet-printed black phosphorus. <i>Optics Express</i> , <b>2019</b> , 27, 15032-15045	3.3	37
90	Enhancing monolayer photoluminescence on optical micro/nanofibers for low-threshold lasing. <i>Science Advances</i> , <b>2019</b> , 5, eaax7398	14.3	19
89	Functional inks and printing of two-dimensional materials. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 3265-3300	8.5	268

88	Inkjet Printed Large-Area Flexible Few-Layer Graphene Thermoelectrics. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1800480	15.6	101
87	Wavelength and pulse duration tunable ultrafast fiber laser mode-locked with carbon nanotubes. <i>Scientific Reports</i> , <b>2018</b> , 8, 2738	4.9	36
86	Oxygen self-doped g-CN with tunable electronic band structure for unprecedentedly enhanced photocatalytic performance. <i>Nanoscale</i> , <b>2018</b> , 10, 4515-4522	7.7	168
85	102 fs pulse generation from a long-term stable, inkjet-printed black phosphorus-mode-locked fiber laser. <i>Optics Express</i> , <b>2018</b> , 26, 12506-12513	3.3	70
84	3D Ferroconcrete-Like Aminated Carbon Nanotubes Network Anchoring Sulfur for Advanced Lithium-Sulfur Battery. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801066	21.8	92
83	Hierarchy Design in Metal Oxides as Anodes for Advanced Lithium-Ion Batteries. <i>Small Methods</i> , <b>2018</b> , 2, 1800171	12.8	53
82	Selenium clusters in Zn-glutamate MOF derived nitrogen-doped hierarchically radial-structured microporous carbon for advanced rechargeable NaSe batteries. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 22790-22797	13	43
81	Wavelength tunable soliton rains in a nanotube-mode locked Tm-doped fiber laser. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 193102	3.4	18
80	Realization of vertical metal semiconductor heterostructures via solution phase epitaxy. <i>Nature Communications</i> , <b>2018</b> , 9, 3611	17.4	39
79	172 fs, 24.3 kW peak power pulse generation from a Ho-doped fiber laser system. <i>Optics Letters</i> , <b>2018</b> , 43, 4619-4622	3	12
78	Designing an Efficient Multimode Environmental Sensor Based on Graphene-Silicon Heterojunction. <i>Advanced Materials Technologies</i> , <b>2017</b> , 2, 1600262	6.8	38
77	Flexible Dielectric Nanocomposites with Ultrawide Zero-Temperature Coefficient Windows for Electrical Energy Storage and Conversion under Extreme Conditions. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 7591-7600	9.5	19
76	Slow Photons for Photocatalysis and Photovoltaics. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605349	24	91
75	Graphene actively Q-switched lasers. <i>2D Materials</i> , <b>2017</b> , 4, 025095	5.9	29
74	A self-powered high-performance graphene/silicon ultraviolet photodetector with ultra-shallow junction: breaking the limit of silicon?. <i>Npj 2D Materials and Applications</i> , <b>2017</b> , 1,	8.8	144
73	Photodetectors: A Broadband Fluorographene Photodetector (Adv. Mater. 22/2017). <i>Advanced Materials</i> , <b>2017</b> , 29,	24	1
72	Anchoring ultrafine metallic and oxidized Pt nanoclusters on yolk-shell TiO <sub>2</sub> for unprecedentedly high photocatalytic hydrogen production. <i>Nano Energy</i> , <b>2017</b> , 38, 118-126	17.1	75
71	New Approach for Thickness Determination of Solution-Deposited Graphene Thin Films. <i>ACS Omega</i> , <b>2017</b> , 2, 2630-2638	3.9	7

70	A Broadband Fluorographene Photodetector. <i>Advanced Materials</i> , <b>2017</b> , 29, 1700463	24	72
69	Bio-inspired Murray materials for mass transfer and activity. <i>Nature Communications</i> , <b>2017</b> , 8, 14921	17.4	126
68	Double-Wall Carbon Nanotube Hybrid Mode-Locker in Tm-doped Fibre Laser: A Novel Mechanism for Robust Bound-State Solitons Generation. <i>Scientific Reports</i> , <b>2017</b> , 7, 44314	4.9	39
67	Solvent-Based Soft-Patterning of Graphene Lateral Heterostructures for Broadband High-Speed MetalSemiconductorMetal Photodetectors. <i>Advanced Materials Technologies</i> , <b>2017</b> , 2, 1600241	6.8	43
66	Ultra-strong nonlinear optical processes and trigonal warping in MoS layers. <i>Nature Communications</i> , <b>2017</b> , 8, 893	17.4	123
65	Black phosphorus ink formulation for inkjet printing of optoelectronics and photonics. <i>Nature Communications</i> , <b>2017</b> , 8, 278	17.4	225
64	Optical Waveplates Based on Birefringence of Anisotropic Two-Dimensional Layered Materials. <i>ACS Photonics</i> , <b>2017</b> , 4, 3023-3030	6.3	110
63	Vertically aligned two-dimensional SnS2 nanosheets with a strong photon capturing capability for efficient photoelectrochemical water splitting. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 1989-1995	13	100
62	High-energy and efficient Raman soliton generation tunable from 1.98 to 2.29 $\mu\text{m}$ in an all-silica-fiber thulium laser system. <i>Optics Letters</i> , <b>2017</b> , 42, 3518-3521	3	21
61	Stable, Surfactant-Free GrapheneStyrene Methylmethacrylate Composite for Ultrafast Lasers. <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 1088-1097	8.1	29
60	Theory of edge-state optical absorption in two-dimensional transition metal dichalcogenide flakes. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	31
59	152 fs nanotube-mode-locked thulium-doped all-fiber laser. <i>Scientific Reports</i> , <b>2016</b> , 6, 28885	4.9	66
58	Hierarchical TiO2/C nanocomposite monoliths with a robust scaffolding architecture, mesopore-macropore network and TiO2-C heterostructure for high-performance lithium ion batteries. <i>Nanoscale</i> , <b>2016</b> , 8, 10928-37	7.7	34
57	3D interconnected hierarchically macro-mesoporous TiO2 networks optimized by biomolecular self-assembly for high performance lithium ion batteries. <i>RSC Advances</i> , <b>2016</b> , 6, 26856-26862	3.7	18
56	Unique walnut-shaped porous MnO2/C nanospheres with enhanced reaction kinetics for lithium storage with high capacity and superior rate capability. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 4264-4272	13.2	43
55	3D interconnected macro-mesoporous electrode with self-assembled NiO nanodots for high-performance supercapacitor-like Li-ion battery. <i>Nano Energy</i> , <b>2016</b> , 22, 269-277	17.1	99
54	Surfactant-aided exfoliation of molybdenum disulfide for ultrafast pulse generation through edge-state saturable absorption. <i>Physica Status Solidi (B): Basic Research</i> , <b>2016</b> , 253, 911-917	1.3	24
53	Anisotropic Growth of Nonlayered CdS on MoS2 Monolayer for Functional Vertical Heterostructures. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 2648-2654	15.6	96

52	Ultrafast nonlinear photoresponse of single-wall carbon nanotubes: a broadband degenerate investigation. <i>Nanoscale</i> , <b>2016</b> , 8, 9304-9	7.7	32
51	Manganese dioxide nanosheet functionalized sulfur@PEDOT core-shell nanospheres for advanced lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 9403-9412	13	92
50	Inkjet-printed graphene electrodes for dye-sensitized solar cells. <i>Carbon</i> , <b>2016</b> , 105, 33-41	10.4	82
49	Sensitive Electronic-Skin Strain Sensor Array Based on the Patterned Two-Dimensional In <sub>2</sub> Se <sub>3</sub> . <i>Chemistry of Materials</i> , <b>2016</b> , 28, 4278-4283	9.6	112
48	Hierarchical nanosheet-constructed yolk-shell TiO <sub>2</sub> /porous microspheres for lithium batteries with high capacity, superior rate and long cycle capability. <i>Nanoscale</i> , <b>2015</b> , 7, 12979-89	7.7	47
47	Few-layer MoS <sub>2</sub> saturable absorbers for short-pulse laser technology: current status and future perspectives [Invited]. <i>Photonics Research</i> , <b>2015</b> , 3, A30	6	163
46	Pulse dynamics in carbon nanotube mode-locked fiber lasers near zero cavity dispersion. <i>Optics Express</i> , <b>2015</b> , 23, 9947-58	3.3	32
45	Functional inks of graphene, metal dichalcogenides and black phosphorus for photonics and (opto)electronics <b>2015</b> ,		20
44	Three-Dimensional (3D) Bicontinuous Hierarchically Porous Mn <sub>2</sub> O <sub>3</sub> Single Crystals for High Performance Lithium-Ion Batteries. <i>Scientific Reports</i> , <b>2015</b> , 5, 14686	4.9	43
43	Solution processed MoS <sub>2</sub> -PVA composite for sub-bandgap mode-locking of a wideband tunable ultrafast Er: fiber laser. <i>Nano Research</i> , <b>2015</b> , 8, 1522-1534	10	210
42	All-Fiber Passively Q-Switched Laser Based on Tm <sup>3+</sup> -Doped Tellurite Fiber. <i>IEEE Photonics Technology Letters</i> , <b>2015</b> , 27, 689-692	2.2	9
41	Fast response and high sensitivity ZnO/glass surface acoustic wave humidity sensors using graphene oxide sensing layer. <i>Scientific Reports</i> , <b>2014</b> , 4, 7206	4.9	115
40	Double-wall carbon nanotubes for wide-band, ultrafast pulse generation. <i>ACS Nano</i> , <b>2014</b> , 8, 4836-47	16.7	54
39	Broadly defining lasing wavelengths in single bandgap-graded semiconductor nanowires. <i>Nano Letters</i> , <b>2014</b> , 14, 3153-9	11.5	74
38	Fluorinated graphene and hexagonal boron nitride as ALD seed layers for graphene-based van der Waals heterostructures. <i>Nanotechnology</i> , <b>2014</b> , 25, 355202	3.4	5
37	Scalar Nanosecond Pulse Generation in a Nanotube Mode-Locked Environmentally Stable Fiber Laser. <i>IEEE Photonics Technology Letters</i> , <b>2014</b> , 26, 1672-1675	2.2	18
36	Q-switched Fiber Laser with MoS <sub>2</sub> Saturable Absorber <b>2014</b> ,		19
35	Vertically aligned smooth ZnO nanorod films for planar device applications. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 2525	7.1	13

34	1.5 GHz picosecond pulse generation from a monolithic waveguide laser with a graphene-film saturable output coupler. <i>Optics Express</i> , <b>2013</b> , 21, 7943-50	3.3	98
33	Nanotubes complexed with DNA and proteins for resistive-pulse sensing. <i>ACS Nano</i> , <b>2013</b> , 7, 8857-69	16.7	25
32	Ab initio study of electronic and optical behavior of two-dimensional silicon carbide. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 2131	7.1	111
31	Ab initio optical study of graphene on hexagonal boron nitride and fluorographene substrates. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 1618	7.1	35
30	Spectroscopic characterization of protein-wrapped single-wall carbon nanotubes and quantification of their cellular uptake in multiple cell generations. <i>Nanotechnology</i> , <b>2013</b> , 24, 265102	3.4	14
29	Mid-infrared Raman-soliton continuum pumped by a nanotube-mode-locked sub-picosecond Tm-doped MOPFA. <i>Optics Express</i> , <b>2013</b> , 21, 23261-71	3.3	64
28	Evanescent-wave coupled right angled buried waveguide: Applications in carbon nanotube mode-locking. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 221117	3.4	18
27	Ultrafast lasers mode-locked by nanotubes and graphene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2012</b> , 44, 1082-1091	3	177
26	500fs wideband tunable fiber laser mode-locked by nanotubes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2012</b> , 44, 1078-1081	3	28
25	74-fs nanotube-mode-locked fiber laser. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 153107	3.4	101
24	Synthesis of YBa <sub>2</sub> Cu <sub>3</sub> O(7- $\delta$ ) and Y <sub>2</sub> BaCuO <sub>5</sub> nanocrystalline powders for YBCO superconductors using carbon nanotube templates. <i>ACS Nano</i> , <b>2012</b> , 6, 5395-403	16.7	35
23	Production and processing of graphene and 2d crystals. <i>Materials Today</i> , <b>2012</b> , 15, 564-589	21.8	745
22	Inkjet-printed graphene electronics. <i>ACS Nano</i> , <b>2012</b> , 6, 2992-3006	16.7	864
21	Tm-doped fiber laser mode-locked by graphene-polymer composite. <i>Optics Express</i> , <b>2012</b> , 20, 25077-84	3.3	233
20	Ultrafast Raman laser mode-locked by nanotubes. <i>Optics Letters</i> , <b>2011</b> , 36, 3996-8	3	52
19	Graphene photonics and optoelectronics. <i>Nature Photonics</i> , <b>2010</b> , 4, 611-622	33.9	5678
18	Graphene mode-locked ultrafast laser. <i>ACS Nano</i> , <b>2010</b> , 4, 803-10	16.7	1547
17	320 fs pulse generation from an ultrafast laser inscribed waveguide laser mode-locked by a nanotube saturable absorber. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 111114	3.4	46

16	Sub 200 fs pulse generation from a graphene mode-locked fiber laser. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 203106	3.4	344
15	Density Gradient Ultracentrifugation of Nanotubes: Interplay of Bundling and Surfactants Encapsulation. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 17267-17285	3.8	125
14	A stable, wideband tunable, near transform-limited, graphene-mode-locked, ultrafast laser. <i>Nano Research</i> , <b>2010</b> , 3, 653-660	10	295
13	Ultrafast stretched-pulse fiber laser mode-locked by carbon nanotubes. <i>Nano Research</i> , <b>2010</b> , 3, 404-411	10	111
12	Nanotube Polymer Composites for Ultrafast Photonics. <i>Advanced Materials</i> , <b>2009</b> , 21, 3874-3899	24	659
11	A compact, high power, ultrafast laser mode-locked by carbon nanotubes. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 253102	3.4	98
10	Characterization of carbon nanotube thermotropic nematic liquid crystal composites. <i>Journal of Physics D: Applied Physics</i> , <b>2008</b> , 41, 125106	3	44
9	Polymer-Assisted Isolation of Single Wall Carbon Nanotubes in Organic Solvents for Optical-Quality Nanotube Polymer Composites. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 20227-20232	3.8	44
8	Carbon Nanotube Polycarbonate Composites for Ultrafast Lasers. <i>Advanced Materials</i> , <b>2008</b> , 20, 4040-4043	13	129
7	Dispersibility and stability improvement of unfunctionalized nanotubes in amide solvents by polymer wrapping. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2008</b> , 40, 2414-2418	3	18
6	Optical properties of nanotube bundles by photoluminescence excitation and absorption spectroscopy. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2008</b> , 40, 2352-2359	3	32
5	Hysteresis suppression in self-assembled single-wall nanotube field effect transistors. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2008</b> , 40, 2278-2282	3	21
4	Stabilization and Debundling of Single-Wall Carbon Nanotube Dispersions in N-Methyl-2-pyrrolidone (NMP) by Polyvinylpyrrolidone (PVP). <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 12594-12602	3.8	142
3	Photoluminescence spectroscopy of carbon nanotube bundles: evidence for exciton energy transfer. <i>Physical Review Letters</i> , <b>2007</b> , 99, 137402	7.4	161
2	100 m min <sup>-1</sup> Industrial-Scale Flexographic Printing of Graphene-Incorporated Conductive Ink. <i>Advanced Engineering Materials</i> , <b>2010</b> , 12, 1217	3.5	3
1	Inkjet-Printed rGO/binary Metal Oxide Sensor for Predictive Gas Sensing in a Mixed Environment. <i>Advanced Functional Materials</i> , <b>2011</b> , 21, 13348	15.6	4