Tawfique Hasan

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16,677 50 129 123 h-index g-index citations papers 6.7 11.1 19,214 140 L-index ext. citations avg, IF ext. papers

#	Paper	IF	Citations
123	Graphene photonics and optoelectronics. <i>Nature Photonics</i> , 2010 , 4, 611-622	33.9	5678
122	Graphene mode-locked ultrafast laser. ACS Nano, 2010 , 4, 803-10	16.7	1547
121	Inkjet-printed graphene electronics. ACS Nano, 2012 , 6, 2992-3006	16.7	864
120	Production and processing of graphene and 2d crystals. <i>Materials Today</i> , 2012 , 15, 564-589	21.8	745
119	Nanotube P olymer Composites for Ultrafast Photonics. <i>Advanced Materials</i> , 2009 , 21, 3874-3899	24	659
118	Sub 200 fs pulse generation from a graphene mode-locked fiber laser. <i>Applied Physics Letters</i> , 2010 , 97, 203106	3.4	344
117	A stable, wideband tunable, near transform-limited, graphene-mode-locked, ultrafast laser. <i>Nano Research</i> , 2010 , 3, 653-660	10	295
116	Functional inks and printing of two-dimensional materials. <i>Chemical Society Reviews</i> , 2018 , 47, 3265-330)G 8.5	268
115	Tm-doped fiber laser mode-locked by graphene-polymer composite. <i>Optics Express</i> , 2012 , 20, 25077-84	3.3	233
114	Black phosphorus ink formulation for inkjet printing of optoelectronics and photonics. <i>Nature Communications</i> , 2017 , 8, 278	17.4	225
113	Solution processed MoS2-PVA composite for sub-bandgap mode-locking of a wideband tunable ultrafast Er:fiber laser. <i>Nano Research</i> , 2015 , 8, 1522-1534	10	210
112	Ultrafast lasers mode-locked by nanotubes and graphene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012 , 44, 1082-1091	3	177
111	Oxygen self-doped g-CN with tunable electronic band structure for unprecedentedly enhanced photocatalytic performance. <i>Nanoscale</i> , 2018 , 10, 4515-4522	7:7	168
110	Few-layer MoS_2 saturable absorbers for short-pulse laser technology: current status and future perspectives [Invited]. <i>Photonics Research</i> , 2015 , 3, A30	6	163
109	Photoluminescence spectroscopy of carbon nanotube bundles: evidence for exciton energy transfer. <i>Physical Review Letters</i> , 2007 , 99, 137402	7.4	161
108	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> , 2017 , 1,	8.8	144
107	Stabilization and D ebundlinglof Single-Wall Carbon Nanotube Dispersions in N-Methyl-2-pyrrolidone (NMP) by Polyvinylpyrrolidone (PVP). <i>Journal of Physical Chemistry C</i> , 2007 , 111, 12594-12602	3.8	142

106	Single-nanowire spectrometers. Science, 2019, 365, 1017-1020	33.3	130
105	Carbon Nanotube Polycarbonate Composites for Ultrafast Lasers. <i>Advanced Materials</i> , 2008 , 20, 4040-4	-0±4β	129
104	Bio-inspired Murray materials for mass transfer and activity. <i>Nature Communications</i> , 2017 , 8, 14921	17.4	126
103	Density Gradient Ultracentrifugation of Nanotubes: Interplay of Bundling and Surfactants Encapsulation. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17267-17285	3.8	125
102	Ultra-strong nonlinear optical processes and trigonal warping in MoS layers. <i>Nature Communications</i> , 2017 , 8, 893	17.4	123
101	Fast response and high sensitivity ZnO/glass surface acoustic wave humidity sensors using graphene oxide sensing layer. <i>Scientific Reports</i> , 2014 , 4, 7206	4.9	115
100	Sensitive Electronic-Skin Strain Sensor Array Based on the Patterned Two-Dimensional ⊞n2Se3. <i>Chemistry of Materials</i> , 2016 , 28, 4278-4283	9.6	112
99	Ab initio study of electronic and optical behavior of two-dimensional silicon carbide. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 2131	7.1	111
98	Ultrafast stretched-pulse fiber laser mode-locked by carbon nanotubes. <i>Nano Research</i> , 2010 , 3, 404-41	1 10	111
97	Optical Waveplates Based on Birefringence of Anisotropic Two-Dimensional Layered Materials. <i>ACS Photonics</i> , 2017 , 4, 3023-3030	6.3	110
96	Printed gas sensors. Chemical Society Reviews, 2020, 49, 1756-1789	58.5	106
95	Inkjet Printed Large-Area Flexible Few-Layer Graphene Thermoelectrics. <i>Advanced Functional Materials</i> , 2018 , 28, 1800480	15.6	101
94	74-fs nanotube-mode-locked fiber laser. Applied Physics Letters, 2012, 101, 153107	3.4	101
93	Vertically aligned two-dimensional SnS2 nanosheets with a strong photon capturing capability for efficient photoelectrochemical water splitting. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 1989-1995	13	100
92	3D interconnected macro-mesoporous electrode with self-assembled NiO nanodots for high-performance supercapacitor-like Li-ion battery. <i>Nano Energy</i> , 2016 , 22, 269-277	17.1	99
91	1.5 GHz picosecond pulse generation from a monolithic waveguide laser with a graphene-film saturable output coupler. <i>Optics Express</i> , 2013 , 21, 7943-50	3.3	98
90	A compact, high power, ultrafast laser mode-locked by carbon nanotubes. <i>Applied Physics Letters</i> , 2009 , 95, 253102	3.4	98
89	Anisotropic Growth of Nonlayered CdS on MoS2 Monolayer for Functional Vertical Heterostructures. <i>Advanced Functional Materials</i> , 2016 , 26, 2648-2654	15.6	96

88	3D Ferroconcrete-Like Aminated Carbon Nanotubes Network Anchoring Sulfur for Advanced LithiumBulfur Battery. <i>Advanced Energy Materials</i> , 2018 , 8, 1801066	21.8	92
87	Manganese dioxide nanosheet functionalized sulfur@PEDOT corellhell nanospheres for advanced lithiumBulfur batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 9403-9412	13	92
86	Slow Photons for Photocatalysis and Photovoltaics. <i>Advanced Materials</i> , 2017 , 29, 1605349	24	91
85	Inkjet-printed graphene electrodes for dye-sensitized solar cells. <i>Carbon</i> , 2016 , 105, 33-41	10.4	82
84	Anchoring ultrafine metallic and oxidized Pt nanoclusters on yolk-shell TiO 2 for unprecedentedly high photocatalytic hydrogen production. <i>Nano Energy</i> , 2017 , 38, 118-126	17.1	75
83	Broadly defining lasing wavelengths in single bandgap-graded semiconductor nanowires. <i>Nano Letters</i> , 2014 , 14, 3153-9	11.5	74
82	A Broadband Fluorographene Photodetector. <i>Advanced Materials</i> , 2017 , 29, 1700463	24	72
81	A Fully Printed Flexible MoS2 Memristive Artificial Synapse with Femtojoule Switching Energy. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900740	6.4	71
80	102 fs pulse generation from a long-term stable, inkjet-printed black phosphorus-mode-locked fiber laser. <i>Optics Express</i> , 2018 , 26, 12506-12513	3.3	70
79	152 fs nanotube-mode-locked thulium-doped all-fiber laser. <i>Scientific Reports</i> , 2016 , 6, 28885	4.9	66
78	Miniaturization of optical spectrometers. <i>Science</i> , 2021 , 371,	33.3	66
77	Mid-infrared Raman-soliton continuum pumped by a nanotube-mode-locked sub-picosecond Tm-doped MOPFA. <i>Optics Express</i> , 2013 , 21, 23261-71	3.3	64
76	Double-wall carbon nanotubes for wide-band, ultrafast pulse generation. ACS Nano, 2014, 8, 4836-47	16.7	54
75	Hierarchy Design in Metal Oxides as Anodes for Advanced Lithium-Ion Batteries. <i>Small Methods</i> , 2018 , 2, 1800171	12.8	53
74	Ultrafast Raman laser mode-locked by nanotubes. <i>Optics Letters</i> , 2011 , 36, 3996-8	3	52
73	Hierarchical nanosheet-constructed yolk-shell TiOlporous microspheres for lithium batteries with high capacity, superior rate and long cycle capability. <i>Nanoscale</i> , 2015 , 7, 12979-89	7.7	47
72	320 fs pulse generation from an ultrafast laser inscribed waveguide laser mode-locked by a nanotube saturable absorber. <i>Applied Physics Letters</i> , 2010 , 97, 111114	3.4	46
71	Engineering symmetry breaking in 2D layered materials. <i>Nature Reviews Physics</i> , 2021 , 3, 193-206	23.6	45

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70	Characterization of carbon nanotube Thermotropic nematic liquid crystal composites. <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 125106	3	44	
69	Polymer-Assisted Isolation of Single Wall Carbon Nanotubes in Organic Solvents for Optical-Quality Nanotube P olymer Composites. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 20227-20232	3.8	44	
68	Solvent-Based Soft-Patterning of Graphene Lateral Heterostructures for Broadband High-Speed MetalBemiconductorMetal Photodetectors. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600241	6.8	43	
67	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> , 2016 , 4, 4264-4	4 27 2	43	
66	Three-Dimensional (3D) Bicontinuous Hierarchically Porous Mn2O3 Single Crystals for High Performance Lithium-Ion Batteries. <i>Scientific Reports</i> , 2015 , 5, 14686	4.9	43	
65	A general ink formulation of 2D crystals for wafer-scale inkjet printing. Science Advances, 2020, 6, eaba	50493	43	
64	Selenium clusters in Zn-glutamate MOF derived nitrogen-doped hierarchically radial-structured microporous carbon for advanced rechargeable NaBe batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 22790-22797	13	43	
63	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> , 2017 , 7, 44314	4.9	39	
62	Realization of vertical metal semiconductor heterostructures via solution phase epitaxy. <i>Nature Communications</i> , 2018 , 9, 3611	17.4	39	
61	Designing an Efficient Multimode Environmental Sensor Based on GrapheneBilicon Heterojunction. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600262	6.8	38	
60	Q-switched Dy:ZBLAN fiber lasers beyond 3 th: comparison of pulse generation using acousto-optic modulation and inkjet-printed black phosphorus. <i>Optics Express</i> , 2019 , 27, 15032-15045	3.3	37	
59	Wavelength and pulse duration tunable ultrafast fiber laser mode-locked with carbon nanotubes. <i>Scientific Reports</i> , 2018 , 8, 2738	4.9	36	
58	Ab initio optical study of graphene on hexagonal boron nitride and fluorographene substrates. Journal of Materials Chemistry C, 2013 , 1, 1618	7.1	35	
57	Synthesis of YBa2Cu3O(7-🏿 and Y2BaCuO5 nanocrystalline powders for YBCO superconductors using carbon nanotube templates. <i>ACS Nano</i> , 2012 , 6, 5395-403	16.7	35	
56	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> , 2016 , 8, 10928-37	7.7	34	
55	Printed aerogels: chemistry, processing, and applications. <i>Chemical Society Reviews</i> , 2021 , 50, 3842-388	8 58.5	34	
54	Lattice Dynamics, Phonon Chirality, and Spin P honon Coupling in 2D Itinerant Ferromagnet Fe3GeTe2. <i>Advanced Functional Materials</i> , 2019 , 29, 1904734	15.6	33	
53	Pulse dynamics in carbon nanotube mode-locked fiber lasers near zero cavity dispersion. <i>Optics Express</i> , 2015 , 23, 9947-58	3.3	32	

52	Optical properties of nanotube bundles by photoluminescence excitation and absorption spectroscopy. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008 , 40, 2352-2359	3	32
51	Ultrafast nonlinear photoresponse of single-wall carbon nanotubes: a broadband degenerate investigation. <i>Nanoscale</i> , 2016 , 8, 9304-9	7.7	32
50	Theory of edge-state optical absorption in two-dimensional transition metal dichalcogenide flakes. <i>Physical Review B</i> , 2016 , 94,	3.3	31
49	Conformal Printing of Graphene for Single- and Multilayered Devices onto Arbitrarily Shaped 3D Surfaces. <i>Advanced Functional Materials</i> , 2019 , 29, 1807933	15.6	31
48	Graphene actively Q-switched lasers. 2D Materials, 2017, 4, 025095	5.9	29
47	Stable, Surfactant-Free GrapheneBtyrene Methylmethacrylate Composite for Ultrafast Lasers. <i>Advanced Optical Materials</i> , 2016 , 4, 1088-1097	8.1	29
46	500fs wideband tunable fiber laser mode-locked by nanotubes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012 , 44, 1078-1081	3	28
45	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> , 2020 , 7, 1046-1058	10.8	27
44	Hierarchical Zeolite Single-Crystal Reactor for Excellent Catalytic Efficiency. <i>Matter</i> , 2020 , 3, 1226-1245	12.7	26
43	Nanotubes complexed with DNA and proteins for resistive-pulse sensing. ACS Nano, 2013, 7, 8857-69	16.7	25
42	Surfactant-aided exfoliation of molybdenum disulfide for ultrafast pulse generation through edge-state saturable absorption. <i>Physica Status Solidi (B): Basic Research</i> , 2016 , 253, 911-917	1.3	24
41	High-energy and efficient Raman soliton generation tunable from 1.98 to 2.29 μ m in an all-silica-fiber thulium laser system. <i>Optics Letters</i> , 2017 , 42, 3518-3521	3	21
40	Hysteresis suppression in self-assembled single-wall nanotube field effect transistors. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008 , 40, 2278-2282	3	21
39	Functional inks of graphene, metal dichalcogenides and black phosphorus for photonics and (opto)electronics 2015 ,		20
38	Inkjet-printed CMOS-integrated graphenethetal oxide sensors for breath analysis. <i>Npj 2D Materials and Applications</i> , 2019 , 3,	8.8	20
37	Flexible Dielectric Nanocomposites with Ultrawide Zero-Temperature Coefficient Windows for Electrical Energy Storage and Conversion under Extreme Conditions. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7591-7600	9.5	19
36	Q-switched Fiber Laser with MoS2 Saturable Absorber 2014 ,		19
35	Enhancing monolayer photoluminescence on optical micro/nanofibers for low-threshold lasing. <i>Science Advances</i> , 2019 , 5, eaax7398	14.3	19

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34	3D interconnected hierarchically macro-mesoporous TiO2 networks optimized by biomolecular self-assembly for high performance lithium ion batteries. <i>RSC Advances</i> , 2016 , 6, 26856-26862	3.7	18
33	Printing of Graphene and Related 2D Materials 2019 ,		18
32	Scalar Nanosecond Pulse Generation in a Nanotube Mode-Locked Environmentally Stable Fiber Laser. <i>IEEE Photonics Technology Letters</i> , 2014 , 26, 1672-1675	2.2	18
31	Evanescent-wave coupled right angled buried waveguide: Applications in carbon nanotube mode-locking. <i>Applied Physics Letters</i> , 2013 , 103, 221117	3.4	18
30	Dispersibility and stability improvement of unfunctionalized nanotubes in amide solvents by polymer wrapping. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008 , 40, 2414-2418	3	18
29	Wavelength tunable soliton rains in a nanotube-mode locked Tm-doped fiber laser. <i>Applied Physics Letters</i> , 2018 , 113, 193102	3.4	18
28	Hexagonal Boron Nitride-Enhanced Optically Transparent Polymer Dielectric Inks for Printable Electronics. <i>Advanced Functional Materials</i> , 2020 , 30, 2002339	15.6	16
27	Optimizing inner voids in yolk-shell TiO2 nanostructure for high-performance and ultralong-life lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2021 , 417, 129241	14.7	15
26	Spectroscopic characterization of protein-wrapped single-wall carbon nanotubes and quantification of their cellular uptake in multiple cell generations. <i>Nanotechnology</i> , 2013 , 24, 265102	3.4	14
25	Vertically aligned smooth ZnO nanorod films for planar device applications. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 2525	7.1	13
24	172 fs, 24.3 kW peak power pulse generation from a Ho-doped fiber laser system. <i>Optics Letters</i> , 2018 , 43, 4619-4622	3	12
23	Interwoven scaffolded porous titanium oxide nanocubes/carbon nanotubes framework for high-performance sodium-ion battery. <i>Journal of Energy Chemistry</i> , 2021 , 59, 38-46	12	11
22	Environmentally stable black phosphorus saturable absorber for ultrafast laser. <i>Nanophotonics</i> , 2020 , 9, 2445-2449	6.3	10
21	All-Fiber Passively Q-Switched Laser Based on Tm3+-Doped Tellurite Fiber. <i>IEEE Photonics Technology Letters</i> , 2015 , 27, 689-692	2.2	9
20	Broad bandwidth dual-wavelength fiber laser simultaneously delivering stretched pulse and dissipative soliton. <i>Optics Express</i> , 2020 , 28, 6937-6944	3.3	9
19	Machine-intelligent inkjet-printed ⊞e2O3/rGO towards NO2 quantification in ambient humidity. <i>Sensors and Actuators B: Chemical</i> , 2020 , 321, 128446	8.5	8
18	Single-cell yolk-shell nanoencapsulation for long-term viability with size-dependent permeability and molecular recognition. <i>National Science Review</i> , 2021 , 8, nwaa097	10.8	8
17	New Approach for Thickness Determination of Solution-Deposited Graphene Thin Films. <i>ACS Omega</i> , 2017 , 2, 2630-2638	3.9	7

16	Fiber-Integrated Reversibly Wavelength-Tunable Nanowire Laser Based on Nanocavity Mode Coupling. <i>ACS Nano</i> , 2019 , 13, 9965-9972	16.7	7
15	Sub-150 fs dispersion-managed soliton generation from an all-fiber Tm-doped laser with BP-SA. <i>Optics Express</i> , 2020 , 28, 34104-34110	3.3	6
14	Fluorinated graphene and hexagonal boron nitride as ALD seed layers for graphene-based van der Waals heterostructures. <i>Nanotechnology</i> , 2014 , 25, 355202	3.4	5
13	Soliton Mode-Locked Large-Mode-Area Tm-Doped Fiber Oscillator. <i>IEEE Photonics Technology Letters</i> , 2020 , 32, 117-120	2.2	5
12	Inkjet-Printed rGO/binary Metal Oxide Sensor for Predictive Gas Sensing in a Mixed Environment. <i>Advanced Functional Materials</i> ,2113348	15.6	4
11	Hydrophilic bi-functional B-doped g-C3N4 hierarchical architecture for excellent photocatalytic H2O2 production and photoelectrochemical water splitting. <i>Journal of Energy Chemistry</i> , 2022 , 70, 236-	2 ^{1,2} 7	4
10	100 m min l Industrial-Scale Flexographic Printing of Graphene-Incorporated Conductive Ink. <i>Advanced Engineering Materials</i> ,2101217	3.5	3
9	Giant All-Optical Modulation of Second-Harmonic Generation Mediated by Dark Excitons. <i>ACS Photonics</i> , 2021 , 8, 2320-2328	6.3	3
8	High-Power Femtosecond Pulse Generation From an All-Fiber Er-Doped Chirped Pulse Amplification System. <i>IEEE Photonics Journal</i> , 2020 , 12, 1-8	1.8	2
7	Structures, Properties and Applications of 2D Materials 2019 , 19-51		2
6	2D Material Production Methods 2019 , 53-101		2
5	Printing Technologies 2019 , 135-178		2
4	2D Ink Design 2019 , 103-134		2
3	Thickness modulations enable multi-functional spin valves based on Van der Waals hetero-structure. <i>Nano Today</i> , 2022 , 42, 101373	17.9	2
2	Photodetectors: A Broadband Fluorographene Photodetector (Adv. Mater. 22/2017). <i>Advanced Materials</i> , 2017 , 29,	24	1
1	Applications of Printed 2D Materials 2019 , 179-216		1