

# Masoud Mahjouri-Samani

## List of Publications by Year in descending order

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71  
papers

2,885  
citations

185998

28  
h-index

168136

53  
g-index

71  
all docs

71  
docs citations

71  
times ranked

5406  
citing authors

#	ARTICLE	IF	CITATIONS
1	Laser incidence angle influence on energy density variations, surface roughness, and porosity of additively manufactured parts. <i>Additive Manufacturing</i> , 2022, 50, 102572.	1.7	8
2	Interface Thermal Resistance between Monolayer $WSe_2$ and $SiO_2$ : Raman Probing with Consideration of Optical-Acoustic Phonon Nonequilibrium. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	5
3	Performance of biochar assisted catalysts during hydroprocessing of non-edible vegetable oil: Effect of transition metal source on catalytic activity. <i>Energy Conversion and Management</i> , 2022, 252, 115131.	4.4	13
4	Dry Printing and Additive Nanomanufacturing of Flexible Hybrid Electronics and Sensors. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	6
5	Photoexcitation Dynamics and Long-Lived Excitons in Strain-Engineered Transition Metal Dichalcogenides. <i>Advanced Materials</i> , 2022, 34, e2110568.	11.1	17
6	Laser-Assisted Synthesis of Monolayer 2D $MoSe_2$ Crystals with Tunable Vacancy Concentrations: Implications for Gas and Biosensing. <i>ACS Applied Nano Materials</i> , 2022, 5, 9129-9139.	2.4	6
7	Laser polishing for improving fatigue performance of additive manufactured Ti-6Al-4V parts. <i>Optics and Laser Technology</i> , 2021, 134, 106639.	2.2	56
8	Laser-assisted selective and localized surface transformation of titanium to anatase, rutile, and mixed phase nanostructures. <i>Journal of Laser Applications</i> , 2021, 33, .	0.8	7
9	Filling Exciton Trap-States in Two-Dimensional Tungsten Disulfide ( $WS_2$ ) and Diselenide ( $WSe_2$ ) Monolayers. <i>Nanomaterials</i> , 2021, 11, 770.	1.9	11
10	Additive Nanomanufacturing of Multifunctional Materials and Patterned Structures: A Novel Laser-Based Dry Printing Process. <i>Advanced Materials Technologies</i> , 2021, 6, 2001260.	3.0	4
11	Two-Dimensional-Material-Based Field-Effect Transistor Biosensor for Detecting COVID-19 Virus (SARS-CoV-2). <i>ACS Nano</i> , 2021, 15, 11461-11469.	7.3	149
12	Radiation Effects on Thin Flexible Superconducting Cables. <i>IEEE Transactions on Applied Superconductivity</i> , 2021, 31, 1-5.	1.1	3
13	Magnetism and spin dynamics in room-temperature van der Waals magnet $Fe_5GeTe_2$ . <i>2D Materials</i> , 2021, 8, 045030.	2.0	32
14	Rapid laser nanomanufacturing and direct patterning of 2D materials on flexible substrates. <i>2DFlex. Nanotechnology</i> , 2021, 32, 055302.	1.3	8
15	Accelerated synthesis of atomically-thin 2D quantum materials by a novel laser-assisted synthesis technique. <i>2D Materials</i> , 2020, 7, 015014.	2.0	21
16	Ultrafast dynamics of exciton formation and decay in two-dimensional tungsten disulfide ( $2D-WS_2$ ) monolayers. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 17385-17393.	1.3	19
17	Interfacial Thermal Conductance between Monolayer $WSe_2$ and $SiO_2$ under Consideration of Radiative Electron-Hole Recombination. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 51069-51081.	4.0	18
18	Gas-Phase Formation of Highly Luminescent 2D $GaSe$ Nanoparticle Ensembles in a Nonequilibrium Laser Ablation Process. <i>Nanomaterials</i> , 2020, 10, 908.	1.9	9

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19	Monolayer 2D quantum materials subjected to gamma irradiation in high-vacuum for nuclear and space applications. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	12
20	Phase-Selective and Localized TiO <sub>2</sub> Coating on Additive and Wrought Titanium by a Direct Laser Surface Modification Approach. <i>ACS Omega</i> , 2020, 5, 16744-16751.	1.6	17
21	Dexamethasone eluting 3D printed metal devices for bone injuries. <i>Therapeutic Delivery</i> , 2020, 11, 373-386.	1.2	10
22	Application of lasers in the synthesis and processing of two-dimensional quantum materials. <i>Journal of Laser Applications</i> , 2019, 31, 031202.	0.8	9
23	Strain tolerance of two-dimensional crystal growth on curved surfaces. <i>Science Advances</i> , 2019, 5, eaav4028.	4.7	46
24	Self-limiting laser crystallization and direct writing of 2D materials. <i>International Journal of Extreme Manufacturing</i> , 2019, 1, 015001.	6.3	26
25	Laser Synthesis, Processing, and Spectroscopy of Atomically-Thin Two Dimensional Materials. <i>Springer Series in Materials Science</i> , 2018, , 1-37.	0.4	1
26	Photocarrier Transfer across Monolayer MoS <sub>2</sub> –MoSe <sub>2</sub> Lateral Heterojunctions. <i>ACS Nano</i> , 2018, 12, 7086-7092.	7.3	25
27	Transition Metal Dichalcogenides: Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe <sub>2</sub> ( <i>Adv. Funct. Mater.</i> 19/2017). <i>Advanced Functional Materials</i> , 2017, 27, .	7.8	3
28	Black Anatase Formation by Annealing of Amorphous Nanoparticles and the Role of the Ti <sub>2</sub> O <sub>3</sub> Shell in Self-Organized Crystallization by Particle Attachment. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 22018-22025.	4.0	15
29	UV-activated ZnO films on a flexible substrate for room temperature O <sub>2</sub> and H <sub>2</sub> O sensing. <i>Scientific Reports</i> , 2017, 7, 6053.	1.6	61
30	High Conduction Hopping Behavior Induced in Transition Metal Dichalcogenides by Percolating Defect Networks: Toward Atomically Thin Circuits. <i>Advanced Functional Materials</i> , 2017, 27, 1702829.	7.8	52
31	Nonequilibrium Synthesis of TiO <sub>2</sub> Nanoparticle “Building Blocks” for Crystal Growth by Sequential Attachment in Pulsed Laser Deposition. <i>Nano Letters</i> , 2017, 17, 4624-4633.	4.5	33
32	Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe <sub>2</sub> . <i>Advanced Functional Materials</i> , 2017, 27, 1603850.	7.8	84
33	Laser Treated Carbon Nanotube Yarn Microelectrodes for Rapid and Sensitive Detection of Dopamine in Vivo. <i>ACS Sensors</i> , 2016, 1, 508-515.	4.0	74
34	Ultrafast Dynamics of Metal Plasmons Induced by 2D Semiconductor Excitons in Hybrid Nanostructure Arrays. <i>ACS Photonics</i> , 2016, 3, 2389-2395.	3.2	42
35	Tailoring Vacancies Far Beyond Intrinsic Levels Changes the Carrier Type and Optical Response in Monolayer MoSe <sub>2</sub> Crystals. <i>Nano Letters</i> , 2016, 16, 5213-5220.	4.5	121
36	Ultrafast Charge Transfer and Hybrid Exciton Formation in 2D/0D Heterostructures. <i>Journal of the American Chemical Society</i> , 2016, 138, 14713-14719.	6.6	102

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37	Nanoforging Single Layer MoSe <sub>2</sub> Through Defect Engineering with Focused Helium Ion Beams. Scientific Reports, 2016, 6, 30481.	1.6	82
38	Interlayer Coupling in Twisted WSe <sub>2</sub> /WS <sub>2</sub> Bilayer Heterostructures Revealed by Optical Spectroscopy. ACS Nano, 2016, 10, 6612-6622.	7.3	249
39	Low temperature synthesis of hierarchical TiO <sub>2</sub> nanostructures for high performance perovskite solar cells by pulsed laser deposition. Physical Chemistry Chemical Physics, 2016, 18, 27067-27072.	1.3	29
40	Observation of two distinct negative trions in tungsten disulfide monolayers. Physical Review B, 2015, 92, .	1.1	44
41	Phase Determination of Black TiO <sub>2</sub> Nanoparticles. Microscopy and Microanalysis, 2015, 21, 815-816.	0.2	1
42	Patterned arrays of lateral heterojunctions within monolayer two-dimensional semiconductors. Nature Communications, 2015, 6, 7749.	5.8	213
43	Laser-based micro/nanofabrication in one, two and three dimensions. Frontiers of Optoelectronics, 2015, 8, 351-378.	1.9	36
44	Low-Frequency Raman Fingerprints of Two-Dimensional Metal Dichalcogenide Layer Stacking Configurations. ACS Nano, 2015, 9, 6333-6342.	7.3	151
45	Structure and Formation Mechanism of Black TiO <sub>2</sub> Nanoparticles. ACS Nano, 2015, 9, 10482-10488.	7.3	170
46	Catalytic nanoparticles for carbon nanotube growth synthesized by through thin film femtosecond laser ablation. Proceedings of SPIE, 2014, , .	0.8	1
47	Pulsed Laser Deposition of Photoresponsive Two-Dimensional GaSe Nanosheet Networks. Advanced Functional Materials, 2014, 24, 6365-6371.	7.8	108
48	Digital Transfer Growth of Patterned 2D Metal Chalcogenides by Confined Nanoparticle Evaporation. ACS Nano, 2014, 8, 11567-11575.	7.3	47
49	Single-Step Formation of Graphene on Dielectric Surfaces. Advanced Materials, 2013, 25, 630-634.	11.1	75
50	Plasmonic-enhanced carbon nanotube infrared bolometers. Nanotechnology, 2013, 24, 035502.	1.3	43
51	Transparent, flexible, and solid-state supercapacitors based on graphene electrodes. APL Materials, 2013, 1, .	2.2	89
52	Laser-assisted solid-state synthesis of carbon nanotube/silicon core/shell structures. Nanotechnology, 2013, 24, 255604.	1.3	3
53	Rapid Growth of m-plane Oriented Gallium Nitride Nanoplates on Silicon Substrate Using Laser-Assisted Metal Organic Chemical Vapor Deposition. Crystal Growth and Design, 2013, 13, 3171-3176.	1.4	3
54	Uniform, Homogenous Coatings of Carbon Nanohorns on Arbitrary Substrates from Common Solvents. ACS Applied Materials & Interfaces, 2013, 5, 13153-13160.	4.0	23

#	ARTICLE	IF	CITATIONS
55	Three-dimensional sub-wavelength fabrication by integration of additive and subtractive femtosecond-laser direct writing. Materials Research Society Symposia Proceedings, 2013, 1499, 1.	0.1	0
56	Strong photoluminescence from diameter-modulated single-walled carbon nanotubes. Applied Physics Letters, 2012, 101, 043123.	1.5	1
57	Simultaneous additive and subtractive three-dimensional nanofabrication using integrated two-photon polymerization and multiphoton ablation. Light: Science and Applications, 2012, 1, e6-e6.	7.7	158
58	Laser-assisted nanofabrication of carbon nanostructures. Journal of Laser Applications, 2012, 24, .	0.8	17
59	Surface-enhanced Raman spectroscopy using gold-coated horizontally aligned carbon nanotubes. Nanotechnology, 2012, 23, 205702.	1.3	87
60	Three-dimensional micro/nano-fabrication by integration of additive and subtractive femtosecond-laser direct writing processes. , 2012, , .		1
61	Transparent interconnections formed by rapid single-step fabrication of graphene patterns. Applied Physics Letters, 2011, 99, 053103.	1.5	27
62	What Can Lasers Do in the Nano-Fabrication of Carbon Nanotube Based Devices?. Materials Research Society Symposia Proceedings, 2011, 1365, 1.	0.1	0
63	Diameter modulation of carbon nanotubes by rapid temperature modulation in laser-assisted chemical vapor deposition. Proceedings of SPIE, 2011, , .	0.8	0
64	Polarity determined growth of carbon nanotubes of different alignments. Proceedings of SPIE, 2010, , .	0.8	0
65	Diameter modulation by fast temperature control in laser-assisted chemical vapor deposition of single-walled carbon nanotubes. Nanotechnology, 2010, 21, 395601.	1.3	17
66	Towards carbon-nanotube integrated devices: optically controlled parallel integration of single-walled carbon nanotubes. Nanotechnology, 2010, 21, 315601.	1.3	13
67	Controlled-growth of single-walled carbon nanotubes using optical near-field effects. Proceedings of SPIE, 2009, , .	0.8	2
68	Image contrast enhancement in field-emission scanning electron microscopy of single-walled carbon nanotubes. Applied Surface Science, 2009, 255, 4341-4346.	3.1	7
69	Self-aligned growth of single-walled carbon nanotubes using optical near-field effects. Nanotechnology, 2009, 20, 025601.	1.3	19
70	Laser induced selective removal of metallic carbon nanotubes. Nanotechnology, 2009, 20, 495202.	1.3	32
71	Controlled growth of carbon nanotubes on electrodes under different bias polarity. Applied Physics Letters, 2009, 95, 143117.	1.5	12