

# Mohammad Karbalaee Akbari

## List of Publications by Year in Descending Order

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**Version:** 2024-04-28

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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.

47  
papers

990  
citations

17  
h-index

31  
g-index

48  
ext. papers

1,236  
ext. citations

6.8  
avg, IF

4.77  
L-index

#	Paper	IF	Citations
47	Plasma-enhanced elemental enrichment of liquid metal interfaces: Towards realization of GaS nanodomains in two-dimensional Ga <sub>2</sub> O <sub>3</sub> . <i>Applied Materials Today</i> , <b>2022</b> , 27, 101461	6.6	1
46	Bioinspired Patterned Photonic Junctions for Plasmon-Enhanced Metal Photoluminescence and Fluorescence: Design of Optical Cavities for Near-Infrared Electronics. <i>Materials Today Energy</i> , <b>2022</b> , 101003	7	0
45	Tunability of near infrared opto-synaptic properties of thin MoO <sub>3</sub> films fabricated by atomic layer deposition. <i>Applied Surface Science</i> , <b>2022</b> , 593, 153399	6.7	1
44	Fight against COVID-19: The case of antiviral surfaces. <i>APL Materials</i> , <b>2021</b> , 9, 031112	5.7	33
43	Atomic layer deposition: State-of-the-art approach to nanoscale hetero-interfacial engineering of chemical sensors electrodes: A review. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 331, 129403	8.5	6
42	2D Semiconductor Nanomaterials and Heterostructures: Controlled Synthesis and Functional Applications. <i>Nanoscale Research Letters</i> , <b>2021</b> , 16, 94	5	1
41	Heterostructured plasmonic memristors with tunable opto-synaptic functionalities. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 2539-2549	7.1	9
40	State-of-the-art surface oxide semiconductors of liquid metals: an emerging platform for development of multifunctional two-dimensional materials. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 34-73	13	12
39	Plasma-induced sub-10 nm Au-SnO <sub>2</sub> -In <sub>2</sub> O <sub>3</sub> heterostructures fabricated by atomic layer deposition for highly sensitive ethanol detection on ppm level. <i>Applied Surface Science</i> , <b>2021</b> , 563, 150400	6.7	3
38	Dynamic Self-Rectifying Liquid Metal-Semiconductor Heterointerfaces: A Platform for Development of Bioinspired Afferent Systems. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> ,	9.5	2
37	Nanoscale All-Oxide-Heterostructured Bio-inspired Optoresponsive Nociceptor. <i>Nano-Micro Letters</i> , <b>2020</b> , 12, 83	19.5	16
36	Chemical Vapor Deposition of Two-Dimensional Semiconductors <b>2020</b> , 1-42		2
35	Artificial Synaptic Devices Based on Two-Dimensional Semiconductors <b>2020</b> , 229-274		1
34	Memristive Devices Based on Ultrathin 2D Materials <b>2020</b> , 171-228		
33	Photonic and Plasmonic Devices Based on Two-Dimensional Semiconductors <b>2020</b> , 145-170		
32	Hetero-Interfaces in 2D-Based Semiconductor Devices <b>2020</b> , 111-144		
31	Self-Limiting Two-Dimensional Surface Oxides of Liquid Metals <b>2020</b> , 79-110		

30	Atomic Layer Deposition of Two-Dimensional Semiconductors <b>2020</b> , 43-78		
29	Sensorimotor Devices Based on Two-Dimensional Semiconductor Materials <b>2020</b> , 275-307		
28	Nano-engineering and functionalization of hybrid Au-MeO-TiO (Me = W, Ga) hetero-interfaces for optoelectronic receptors and nociceptors. <i>Nanoscale</i> , <b>2020</b> , 12, 20177-20188	7.7	12
27	A bioinspired optoelectronically engineered artificial neurorobotics device with sensorimotor functionalities. <i>Nature Communications</i> , <b>2019</b> , 10, 3873	17.4	44
26	Sonochemical functionalization of the low-dimensional surface oxide of Galinstan for heterostructured optoelectronic applications. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 5584-5595	7.1	18
25	Electrochromic Photodetectors: Toward Smarter Glasses and Nano Reflective Displays via an Electrolytic Mechanism. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 27997-28004	9.5	6
24	ALD-Developed Plasmonic Two-Dimensional Au-WO-TiO Heterojunction Architectonics for Design of Photovoltaic Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 10304-10314	9.5	33
23	Ultra-thin MoO <sub>3</sub> film goes wafer-scaled nano-architectonics by atomic layer deposition. <i>Materials and Design</i> , <b>2018</b> , 149, 135-144	8.1	14
22	Electrochemical non-enzymatic glucose sensor based on hierarchical 3D Co <sub>3</sub> O <sub>4</sub> /Ni heterostructure electrode for pushing sensitivity boundary to a new limit. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 267, 93-103	8.5	71
21	Atomic layer deposition-developed two-dimensional MoO <sub>3</sub> windows excellent hydrogen peroxide electrochemical sensing capabilities. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 262, 334-344	8.5	38
20	Ultrasensitive, Sustainable, and Selective Electrochemical Hydrazine Detection by ALD-Developed Two-Dimensional WO <sub>3</sub> . <i>ChemElectroChem</i> , <b>2018</b> , 5, 266-272	4.3	13
19	Nanostructure-induced performance degradation of WO <sub>3</sub> /HO for energy conversion and storage devices. <i>Beilstein Journal of Nanotechnology</i> , <b>2018</b> , 9, 2845-2854	3	1
18	Photodetector with superior functional capabilities based on monolayer WO <sub>3</sub> developed by atomic layer deposition. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 245, 954-962	8.5	27
17	Atomic layer deposition-enabled single layer of tungsten trioxide across a large area. <i>Applied Materials Today</i> , <b>2017</b> , 6, 44-53	6.6	47
16	Wafer-scaled monolayer WO <sub>3</sub> windows ultra-sensitive, extremely-fast and stable UV-A photodetection. <i>Applied Surface Science</i> , <b>2017</b> , 405, 169-177	6.7	41
15	Wafer-scale fabrication of conformal atomic-layered TiO <sub>2</sub> by atomic layer deposition using tetrakis (dimethylamino) titanium and H <sub>2</sub> O precursors. <i>Materials and Design</i> , <b>2017</b> , 120, 99-108	8.1	37
14	Engineering the Surface Structure of MoS <sub>2</sub> Nanosheets by Carbon-Doping with Rich Defects to Tune UV-Visible Light Absorption Property. <i>Key Engineering Materials</i> , <b>2017</b> , 735, 185-188	0.4	3
13	Carbon-doped MoS <sub>2</sub> nanosheet photocatalysts for efficient degradation of methyl orange. <i>Ionics</i> , <b>2017</b> , 23, 1921-1925	2.7	17

12	Nano-thickness dependence of supercapacitor performance of the ALD-fabricated two-dimensional WO <sub>3</sub> . <i>Electrochimica Acta</i> , <b>2017</b> , 246, 625-633	6.7	42
11	Data set for fabrication of conformal two-dimensional TiO by atomic layer deposition using tetrakis (dimethylamino) titanium (TDMAT) and HO precursors. <i>Data in Brief</i> , <b>2017</b> , 13, 401-407	1.2	8
10	Nano TiB <sub>2</sub> and TiO <sub>2</sub> reinforced composites: A comparative investigation on strengthening mechanisms and predicting mechanical properties via neural network modeling. <i>Ceramics International</i> , <b>2017</b> , 43, 16799-16810	5.1	15
9	Atomically-thin WO <sub>3</sub> /TiO <sub>2</sub> heterojunction for supercapacitor electrodes developed by atomic layer deposition. <i>Composites Communications</i> , <b>2017</b> , 5, 31-35	6.7	26
8	Wafer-scale two-dimensional Au-TiO <sub>2</sub> bilayer films for photocatalytic degradation of Palmitic acid under UV and visible light illumination. <i>Materials Research Bulletin</i> , <b>2017</b> , 95, 380-391	5.1	16
7	Highly Sensitive, Fast-Responding, and Stable Photodetector Based on ALD-Developed Monolayer TiO <sub>2</sub> . <i>IEEE Nanotechnology Magazine</i> , <b>2017</b> , 16, 880-887	2.6	12
6	TiO <sub>2</sub> nanoparticles-functionalized two-dimensional WO <sub>3</sub> for high-performance supercapacitors developed by facile two-step ALD process. <i>Materials Today Communications</i> , <b>2017</b> , 12, 55-62	2.5	19
5	Atomic Layer Deposition of Ultra-Thin Oxide Semiconductors: Challenges and Opportunities. <i>Key Engineering Materials</i> , <b>2017</b> , 735, 215-218	0.4	
4	Carbon fiber reinforced metal matrix composites: Fabrication processes and properties. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2017</b> , 92, 70-96	8.4	275
3	Al-TiB <sub>2</sub> micro/nanocomposites: Particle capture investigations, strengthening mechanisms and mathematical modelling of mechanical properties. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 682, 98-106	5.3	42
2	Interfacial engineering of two-dimensional nano-structured materials by atomic layer deposition. <i>Applied Surface Science</i> , <b>2017</b> , 392, 231-243	6.7	22
1	Ultrathin Two-Dimensional Semiconductors for Novel Electronic Applications		3