

# Nazek El-Atab

## List of Publications by Year in descending order

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Version: 2024-02-01

60  
papers

1,171  
citations

471477

17  
h-index

395678

33  
g-index

67  
all docs

67  
docs citations

67  
times ranked

1019  
citing authors

#	ARTICLE	IF	CITATIONS
1	Soft Actuators for Soft Robotic Applications: A Review. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000128.	6.1	244
2	Flexible Nanoporous Template for the Design and Development of Reusable Anti-COVID-19 Hydrophobic Face Masks. <i>ACS Nano</i> , 2020, 14, 7659-7665.	14.6	133
3	Recent Progress on Flexible Capacitive Pressure Sensors: From Design and Materials to Applications. <i>Advanced Materials Technologies</i> , 2021, 6, 2001023.	5.8	131
4	Soft Actuators for Soft Robotic Applications: A Review. <i>Advanced Intelligent Systems</i> , 2020, 2, 2070102.	6.1	70
5	A Robust Wearable Point-of-Care CNT-Based Strain Sensor for Wirelessly Monitoring Throat-Related Illnesses. <i>Advanced Functional Materials</i> , 2021, 31, 2103375.	14.9	67
6	Diode behavior in ultra-thin low temperature ALD grown zinc-oxide on silicon. <i>AIP Advances</i> , 2013, 3, .	1.3	38
7	Low power zinc-oxide based charge trapping memory with embedded silicon nanoparticles via poole-frenkel hole emission. <i>Applied Physics Letters</i> , 2014, 104, 013112.	3.3	34
8	Enhanced memory effect with embedded graphene nanoplatelets in ZnO charge trapping layer. <i>Applied Physics Letters</i> , 2014, 105, 033102.	3.3	32
9	Corrugation Enabled Asymmetrically Ultrastretchable (95%) Monocrystalline Silicon Solar Cells with High Efficiency (19%). <i>Advanced Energy Materials</i> , 2019, 9, 1902883.	19.5	31
10	Enhanced memory effect via quantum confinement in 16-nm InN nanoparticles embedded in ZnO charge trapping layer. <i>Applied Physics Letters</i> , 2014, 104, 253106.	3.3	27
11	~3-nm ZnO Nanoislands Deposition and Application in Charge Trapping Memory Grown by Single ALD Step. <i>Scientific Reports</i> , 2016, 6, 38712.	3.3	27
12	Enhanced performance of thin-film amorphous silicon solar cells with a top film of 2.85 nm silicon nanoparticles. <i>Solar Energy</i> , 2016, 125, 332-338.	6.1	25
13	Enhanced non-volatile memory characteristics with quattro-layer graphene nanoplatelets vs. 2.85-nm Si nanoparticles with asymmetric Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> tunnel oxide. <i>Nanoscale Research Letters</i> , 2015, 10, 957.	5.7	22
14	1D versus 3D quantum confinement in 1-5 nm ZnO nanoparticle agglomerations for application in charge-trapping memory devices. <i>Nanotechnology</i> , 2016, 27, 275205.	2.6	21
15	Zinc-oxide charge trapping memory cell with ultra-thin chromium-oxide trapping layer. <i>AIP Advances</i> , 2013, 3, .	1.3	20
16	Ultraflexible Corrugated Monocrystalline Silicon Solar Cells with High Efficiency (19%), Improved Thermal Performance, and Reliability Using Low-Cost Laser Patterning. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 2269-2275.	8.0	20
17	Silicon nanoparticle charge trapping memory cell. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014, 8, 629-633.	2.4	18
18	Cubic-phase zirconia nano-island growth using atomic layer deposition and application in low-power charge-trapping nonvolatile-memory devices. <i>Nanotechnology</i> , 2017, 28, 445201.	2.6	17

#	ARTICLE	IF	CITATIONS
19	Flexible and stretchable inorganic solar cells: Progress, challenges, and opportunities. <i>MRS Energy &amp; Sustainability</i> , 2020, 7, 1.	3.0	16
20	Toward nanotechnology-enabled face masks against SARS-CoV-2 and pandemic respiratory diseases. <i>Nanotechnology</i> , 2022, 33, 062006.	2.6	14
21	Memory effect by charging of ultra-small 2-nm laser-synthesized solution processable Si-nanoparticles embedded in Si-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> structure. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 1751-1755.	1.8	13
22	2D materials show brain-like learning. <i>Nature Electronics</i> , 2018, 1, 436-437.	26.0	13
23	Solar Powered Small Unmanned Aerial Vehicles: A Review. <i>Energy Technology</i> , 2021, 9, 2100587.	3.8	13
24	Pressure-Driven Two-Input 3D Microfluidic Logic Gates. <i>Advanced Science</i> , 2020, 7, 1903027.	11.2	12
25	2-nm laser-synthesized Si nanoparticles for low-power charge trapping memory devices. , 2014, , .		11
26	Heterogeneous Cubic Multidimensional Integrated Circuit for Water and Food Security in Fish Farming Ponds. <i>Small</i> , 2020, 16, e1905399.	10.0	11
27	Nanoislands-Based Charge Trapping Memory: A Scalability Study. <i>IEEE Nanotechnology Magazine</i> , 2017, 16, 1143-1146.	2.0	10
28	Bi-Facial Substrates Enabled Heterogeneous Multi-Dimensional Integrated Circuits (MD-IC) for Internet of Things (IoT) Applications. <i>Advanced Engineering Materials</i> , 2019, 21, 1900043.	3.5	10
29	AI Powered Unmanned Aerial Vehicle for Payload Transport Application. , 2019, , .		8
30	Nature-inspired spherical silicon solar cell for three-dimensional light harvesting, improved dust and thermal management. <i>MRS Communications</i> , 2020, 10, 391-397.	1.8	8
31	Expandable Polymer Assisted Wearable Personalized Medicinal Platform. <i>Advanced Materials Technologies</i> , 2020, 5, 2000411.	5.8	6
32	Polymer/paper-based double touch mode capacitive pressure sensing element for wireless control of robotic arm. , 2020, , .		6
33	Nano-scale transistors for interfacing with brain: design criteria, progress and prospect. <i>Nanotechnology</i> , 2019, 30, 442001.	2.6	5
34	Structural Engineering Approach for Designing Foil-Based Flexible Capacitive Pressure Sensors. <i>IEEE Sensors Journal</i> , 2022, 22, 11543-11551.	4.7	5
35	Flexible High-Efficiency Corrugated Monocrystalline Silicon Solar Cells for Application in Small Unmanned Aerial Vehicles for Payload Transportation. <i>Energy Technology</i> , 2020, 8, 2000670.	3.8	4
36	MemSor: Emergence of the In-Memory Sensing Technology for the Digital Transformation. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2022, 219, 2100528.	1.8	4

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37	MOS memory with double-layer high- $\kappa$ tunnel oxide Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> and ZnO charge trapping layer. , 2015, , .		3
38	High-Efficiency Corrugated Monocrystalline Silicon Solar Cells with Multi-Directional Flexing Capabilities. , 2019, , .		3
39	3D Heterogeneous Integration Strategy for Physically Flexible CMOS Electronic Systems. , 2021, , .		3
40	MOS memory with ultrathin Al <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> nanolaminates tunnel oxide and 2.85-nm Si-nanoparticles charge trapping layer. , 2015, , .		2
41	Flexible Capacitive Pressure Sensors: Recent Progress on Flexible Capacitive Pressure Sensors: From Design and Materials to Applications (Adv. Mater. Technol. 4/2021). Advanced Materials Technologies, 2021, 6, 2170023.	5.8	2
42	Growth of $\sim$ 43-nm ZnO nano-islands using Atomic Layer Deposition. , 2016, , .		1
43	Agglomeration-based nanoparticle fabrication. , 2020, , 133-153.		1
44	Scalability of nano-island based memory devices. , 2020, , 155-174.		1
45	Multi-Dimensional Integration and Packaging of Devices for Internet-of-Things Applications. , 2020, , .		1
46	Heterogeneous Multi-Dimensional Integrated Circuit for Internet-of-Things Application. , 2019, , .		1
47	$\sim$ 12% Efficiency improvement in a-Si thin-film solar cells using ALD grown 2-nm-thick ZnO nanoislands. , 2016, , .		0
48	Basics of memory devices. , 2020, , 1-22.		0
49	Overview of charge trapping memory devicesâ€”Tunnel band engineering. , 2020, , 23-44.		0
50	Overview of charge trapping memory devicesâ€”charge trapping layer engineering. , 2020, , 45-66.		0
51	Atomic layer deposition based nano-island growth. , 2020, , 67-106.		0
52	Laser ablated nanoparticles synthesis. , 2020, , 107-131.		0
53	Personalized Healthcare: Expandable Polymer Assisted Wearable Personalized Medicinal Platform (Adv. Mater. Technol. 10/2020). Advanced Materials Technologies, 2020, 5, 2070064.	5.8	0
54	Ultrastretchable Corrugated Monocrystalline Silicon Solar Cells with Interdigitated Back Contacts. , 2020, , .		0

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55	Water Quality Monitoring: Heterogeneous Cubic Multidimensional Integrated Circuit for Water and Food Security in Fish Farming Ponds (Small 4/2020). Small, 2020, 16, 2070023.	10.0	0
56	Wrinkled Polydimethylsiloxane for Enhanced Light Trapping and Anti-Reflection in Flexible Corrugated Silicon Solar Cells. , 2021, , .		0
57	Two-nanometer Laser Synthesized Si-Nanoparticles for Low Power Memory Applications. , 2016, , 129-156.		0
58	Large-Scale Spherical Silicon Solar Cell for Advanced Light Management. , 2020, , .		0
59	Ultra-stretchable Silicon Solar Cells for Standalone Wearable and Foldable Electronics Application. , 2020, , .		0
60	Corrugation Enabled Ultraflexible Monocrystalline Silicon Solar Cells with Interdigitated Back Contacts. , 2020, , .		0