

# Ranveer Singh

## List of Publications by Year in descending order

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57  
papers

640  
citations

567281

15  
h-index

677142

22  
g-index

57  
all docs

57  
docs citations

57  
times ranked

644  
citing authors

#	ARTICLE	IF	CITATIONS
1	Growth of TiO <sub>2</sub> thin films on chemically textured Si for solar cell applications as a hole-blocking and antireflection layer. Applied Surface Science, 2017, 418, 225-231.	6.1	44
2	Enhanced solar water splitting of an ideally doped and work function tuned {002} oriented one-dimensional WO <sub>3</sub> with nanoscale surface charge mapping insights. Applied Catalysis B: Environmental, 2021, 295, 120269.	20.2	43
3	An artificial piezotronic synapse for tactile perception. Nano Energy, 2020, 73, 104756.	16.0	36
4	Optical band gap, local work function and field emission properties of MBE grown $\hat{1}^2$ -MoO <sub>3</sub> nanoribbons. Applied Surface Science, 2019, 476, 691-700.	6.1	28
5	Growth angle-dependent tunable work function and optoelectronic properties of MoO <sub>x</sub> thin films. Applied Surface Science, 2020, 507, 144958.	6.1	28
6	Enhanced ultraviolet photo-response in Dy doped ZnO thin film. Journal of Applied Physics, 2018, 123, .	2.5	26
7	Highly transparent solid-state artificial synapse based on oxide memristor. Applied Surface Science, 2021, 536, 147738.	6.1	24
8	Ocular Permeation and Sustained Anti-inflammatory Activity of Dexamethasone from Kaolin Nanodispersion Hydrogel System. Current Eye Research, 2018, 43, 828-838.	1.5	20
9	Intrinsic inhomogeneous barrier height at the n-TiO <sub>2</sub> /p-Si hole-blocking junction. Applied Surface Science, 2018, 428, 1006-1009.	6.1	20
10	Thermal annealing induced strong photoluminescence enhancement in Ag-TiO <sub>2</sub> plasmonic nanocomposite thin films. Journal of Alloys and Compounds, 2019, 786, 750-757.	5.5	20
11	A multifunctional TiN/Ni electrode for wearable supercapacitor and sensor with an insight into charge storage mechanism. Applied Surface Science, 2021, 555, 149718.	6.1	20
12	White light-driven photo response of TiO <sub>2</sub> thin films: Influence of substrate texturing. Solar Energy, 2018, 174, 231-239.	6.1	19
13	Femtojoule Power Consuming Synaptic Memtransistor Based on Mott Transition of Multiphasic Vanadium Oxides. Advanced Functional Materials, 2021, 31, 2102567.	14.9	18
14	Influence of grain size on local work function and optoelectronic properties of n-ZTO/p-Si heterostructures. Applied Surface Science, 2019, 493, 577-586.	6.1	17
15	Effect of Fe ion implantation on the thermoelectric properties and electronic structures of CoSb <sub>3</sub> thin films. RSC Advances, 2019, 9, 36113-36122.	3.6	17
16	Tunable optoelectronic properties of pulsed dc sputter-deposited ZnO:Al thin films: Role of growth angle. Journal of Applied Physics, 2016, 120, .	2.5	16
17	Strong uniaxial magnetic anisotropy in Co films on highly ordered grating-like nanopatterned Ge surfaces. Nanotechnology, 2018, 29, 125302.	2.6	15
18	Direct evidence of band-bending at grain boundaries of ZnO:SnO <sub>2</sub> films: Local probe microscopic studies. Solar Energy, 2020, 208, 275-281.	6.1	15

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19	Ag nanoparticle decorated molybdenum oxide structures: growth, characterization, DFT studies and their application to enhanced field emission. <i>Nanotechnology</i> , 2017, 28, 415602.	2.6	14
20	Growth of Wafer-Scale $\text{ReS}_2$ with "Tunable" Geometry toward Electron Field-Emission Application. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 35845-35852.	8.0	13
21	Nitrogen-doped carbon dot anchored 1-D $\text{WO}_3$ for enhanced solar water splitting: A nano surface imaging evidence of charge separation and accumulation. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 32546-32558.	7.1	13
22	Brain-like spatiotemporal information processing with nanosized second-order synaptic emulators; "solid-state memory visualizer" Nano Energy, 2020, 76, 105014.	16.0	12
23	Ion Beam-Mediated Defect Engineering in $\text{TiO}_x$ Thin Films for Controlled Resistive Switching Property and Application. <i>ACS Applied Electronic Materials</i> , 2021, 3, 3804-3814.	4.3	12
24	Gold-decorated highly ordered self-organized grating-like nanostructures on Ge surface: Kelvin probe force microscopy and conductive atomic force microscopy studies. <i>Nanotechnology</i> , 2016, 27, 435302.	2.6	11
25	Microscopy and spectroscopy study of nanostructural phase transformation from $\text{I}^2\text{-MoO}_3$ to Mo under UHV " MBE conditions. <i>Surface Science</i> , 2019, 682, 64-74.	1.9	9
26	Photoresponse of pulsed laser deposited ZnO:Cu thin films. <i>Solar Energy</i> , 2020, 207, 228-234.	6.1	9
27	Enhanced photocatalytic properties of band structure engineered Pd/ $\text{TiO}_2$ via sequential doping. <i>Applied Surface Science</i> , 2021, 570, 151255.	6.1	9
28	Improved photovoltaic performance of CdTe-based solar cells: Roles of using a hole-blocking layer and nanoscale imaging of barrier height at interfaces. <i>Solar Energy</i> , 2021, 215, 1-11.	6.1	8
29	Electric Field-Induced Area Scalability toward the Multilevel Resistive Switching. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100664.	3.7	8
30	Broadband antireflection property of conformally grown zinc tin oxide thin films on nanorippled- and nanofaceted-Si substrates. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 275305.	2.8	7
31	Accessing low-energy magnetic microstates in square artificial spin ice vertices of broken symmetry in static magnetic field. <i>Physical Review B</i> , 2020, 102, .	3.2	7
32	Synthesis of p-n junctions in ZnO nanorods by $\text{O}^+$ ion implantation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2017, 409, 143-146.	1.4	6
33	Temperature dependent optical characterization of Ni- $\text{TiO}_2$ thin films as potential photocatalytic material. <i>AIP Advances</i> , 2017, 7, 095115.	1.3	6
34	Cold cathode electron emission with ultralow turn-on fields from Au-nanoparticle-decorated self-organized Si nanofacets. <i>Journal of Materials Chemistry C</i> , 2020, 8, 16880-16895.	5.5	6
35	Confined interfacial alloying of multilayered Pd-Ni nanocatalyst for widening hydrogen detection capacity. <i>Sensors and Actuators B: Chemical</i> , 2021, 330, 129378.	7.8	6
36	A Fast and Facile Fabrication of PTFE Based Superhydrophobic and Ultra Wideband Angle Insensitive Anti-Reflection Coatings. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1800041.	2.4	5

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37	Tunable optoelectronic properties of radio frequency sputter-deposited Sb <sub>2</sub> Se <sub>3</sub> thin films: Role of growth angle and thickness. <i>Solar Energy</i> , 2019, 194, 716-723.	6.1	4
38	Experimental and simulation studies on temporal evolution of chemically etched Si surface: Tunable light trapping and cold cathode electron emission properties. <i>Journal of Applied Physics</i> , 2019, 125, .	2.5	4
39	Tuning field-emission characteristics of ZnO nanorods through defect engineering via O <sup>+</sup> ion irradiation. <i>Journal of Applied Physics</i> , 2020, 128, 054304.	2.5	4
40	Femto-second and nanoscale hot carrier dynamics in ZnO/Al <sub>2</sub> O <sub>3</sub> /Ag-NWs/FTO heterojunction. <i>Journal of Alloys and Compounds</i> , 2021, 872, 159657.	5.5	4
41	Surface hydrogeneration of vanadium dioxide nanobeam to manipulate insulator-to-metal transition using hydrogen plasma. <i>Journal of Asian Ceramic Societies</i> , 2021, 9, 1310-1319.	2.3	4
42	Carrier selective MoO <sub>x</sub> /Si heterojunctions: Role of thickness. <i>Applied Surface Science</i> , 2021, 564, 150316.	6.1	4
43	Nanoscale visualization of hot carrier generation and transfer at non-noble metal and oxide interface. <i>Journal of Materials Science and Technology</i> , 2022, 98, 151-159.	10.7	4
44	Substrate roughness and crystal orientation-controlled growth of ultra-thin BN films deposited on Cu foils. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, .	2.3	4
45	Optical, Photocatalytic and Wetting Behavior of GLAD N <sub>2</sub> ÆTiO <sub>2</sub> Films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900021.	1.8	3
46	Growth angle-dependent evolution of morphology and magnetic properties of Co films on highly ordered self-organized Ge substrates. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 498, 166198.	2.3	3
47	Highly transparent conducting Two-Dimensional electron gas channel in ultrathin heterostructures for flexible optoelectronic device applications. <i>Applied Surface Science</i> , 2022, 580, 152266.	6.1	3
48	Morphology-dependent optical and wetting behavior of GLAD PTFE thin films. <i>Journal of Coatings Technology Research</i> , 2021, 18, 173-182.	2.5	2
49	Controlled creation and annihilation of isolated robust emergent magnetic monopole like charged vertices in square artificial spin ice. <i>Scientific Reports</i> , 2021, 11, 13593.	3.3	2
50	Substrate-morphology driven tunable nanoscale artificial synapse. <i>Journal of Asian Ceramic Societies</i> , 2021, 9, 1137-1146.	2.3	2
51	Multifunctional Nanohybrid of Alumina and Indium Oxide Prepared Using the Atomic Layer Deposition Technique. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 59115-59125.	8.0	2
52	Self-Powered and High-Performance Alternating Current Photodetectors to enhance Broadband Photodetection. <i>Advanced Electronic Materials</i> , 0, , 2200392.	5.1	2
53	Local surface conductivity mapping of single-layer graphene subject to low energy argon bombardment: Energy loss mechanism and defect induction efficiency. <i>Materials Letters</i> , 2019, 256, 126638.	2.6	1
54	Tuning the structural, optical, local work function and field emission properties of molybdenum oxide thin films with oxygen partial pressures. <i>Journal of Applied Physics</i> , 2020, 127, 025301.	2.5	1

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55	A Fast and Facile Fabrication of PTFE Based Superhydrophobic and Ultra Wideband Angle Insensitive Anti-Reflection Coatings (Phys. Status Solidi RRL 6/2018). Physica Status Solidi - Rapid Research Letters, 2018, 12, 1870320.	2.4	0
56	Electrically probing differently oriented 1-D nanostructures via C-AFM. AIP Conference Proceedings, 2020, , .	0.4	0
57	Femtojouleâ€Powerâ€Consuming Synaptic Memtransistor Based on Mott Transition of Multiphasic Vanadium Oxides (Adv. Funct. Mater. 46/2021). Advanced Functional Materials, 2021, 31, 2170338.	14.9	0