

Neeraj Dwivedi

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

2,411
citations

218381

26
h-index

205818

48
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55
all docs

55
docs citations

55
times ranked

3262
citing authors

#	ARTICLE	IF	CITATIONS
1	Mussel-inspired chemistry to design biodegradable food packaging films with antimicrobial properties. <i>Chemical Engineering Research and Design</i> , 2022, 162, 17-29.	2.7	15
2	Unusual High Hardness and Load-Dependent Mechanical Characteristics of Hydrogenated Carbon–Nitrogen Hybrid Films. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 20220-20229.	4.0	3
3	Competing and decisive roles of 1D/2D/3D sp ² -carbons in controlling the shape switching, contact sliding, and functional properties of polymers. <i>Materials Today Chemistry</i> , 2022, 25, 100960.	1.7	4
4	The rise of carbon materials for field emission. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2620-2659.	2.7	28
5	Anomalous characteristics of nanostructured hydrogenated carbon thin films. <i>Materials Chemistry and Physics</i> , 2021, 262, 124316.	2.0	3
6	Emergent 2D materials for combating infectious diseases: the potential of MXenes and MXene–graphene composites to fight against pandemics. <i>Materials Advances</i> , 2021, 2, 2892-2905.	2.6	65
7	Angstrom-Scale Transparent Overcoats: Interfacial Nitrogen-Driven Atomic Intermingling Promotes Lubricity and Surface Protection of Ultrathin Carbon. <i>Nano Letters</i> , 2021, 21, 8960-8969.	4.5	5
8	Slippery and Wear-Resistant Surfaces Enabled by Interface Engineered Graphene. <i>Nano Letters</i> , 2020, 20, 905-917.	4.5	18
9	Potential of graphene-based materials to combat COVID-19: properties, perspectives, and prospects. <i>Materials Today Chemistry</i> , 2020, 18, 100385.	1.7	86
10	Solution Processable High Performance Multiwall Carbon Nanotube–Si Heterojunctions. <i>Advanced Electronic Materials</i> , 2020, 6, 2000617.	2.6	3
11	Wound healing properties of magnesium mineralized antimicrobial nanofiber dressings containing chondroitin sulphate – a comparison between blend and core–shell nanofibers. <i>Biomaterials Science</i> , 2020, 8, 3454-3471.	2.6	22
12	Room-Temperature Patterning of Nanoscale MoS ₂ under an Electron Beam. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 16772-16781.	4.0	10
13	Multifunctional Antimicrobial Nanofiber Dressings Containing μ -Polylysine for the Eradication of Bacterial Bioburden and Promotion of Wound Healing in Critically Colonized Wounds. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 15989-16005.	4.0	69
14	Mussel-Inspired Durable Antimicrobial Contact Lenses: The Role of Covalent and Noncovalent Attachment of Antimicrobials. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 3162-3173.	2.6	20
15	Combating Microbial Contamination with Robust Polymeric Nanofibers: Elemental Effect on the Mussel-Inspired Cross-Linking of Electrospun Gelatin. <i>ACS Applied Bio Materials</i> , 2019, 2, 807-823.	2.3	13
16	Boosting contact sliding and wear protection via atomic intermixing and tailoring of nanoscale interfaces. <i>Science Advances</i> , 2019, 5, eaau7886.	4.7	22
17	Surface characteristics and antimicrobial properties of modified catheter surfaces by polypyrogallol and metal ions. <i>Materials Science and Engineering C</i> , 2018, 90, 673-684.	3.8	21
18	Simulating the Role of TCO Materials, their Surface Texturing and Band Gap of Amorphous Silicon Layers on the Efficiency of Amorphous Silicon Thin Film Solar Cells. <i>Silicon</i> , 2017, 9, 59-68.	1.8	12

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19	Direct observation of thickness and foreign interlayer driven abrupt structural transformation in ultrathin carbon and hybrid silicon nitride/carbon films. Carbon, 2017, 115, 701-719.	5.4	18
20	Anomalous electron transport in metal/carbon multijunction devices by engineering of the carbon thickness and selecting metal layer. Journal of Applied Physics, 2017, 121, .	1.1	2
21	Interface Engineering and Controlling the Friction and Wear of Ultrathin Carbon Films: High sp^3 Versus High sp^2 Carbons. Advanced Functional Materials, 2016, 26, 1526-1542.	7.8	44
22	Bio-inspired in situ crosslinking and mineralization of electrospun collagen scaffolds for bone tissue engineering. Biomaterials, 2016, 104, 323-338.	5.7	166
23	Latent Oxidative Polymerization of Catecholamines as Potential Cross-linkers for Biocompatible and Multifunctional Biopolymer Scaffolds. ACS Applied Materials & Interfaces, 2016, 8, 32266-32281.	4.0	29
24	Atomic Scale Interface Manipulation, Structural Engineering, and Their Impact on Ultrathin Carbon Films in Controlling Wear, Friction, and Corrosion. ACS Applied Materials & Interfaces, 2016, 8, 17606-17621.	4.0	20
25	Multifunctional Polyphenols- and Catecholamines-Based Self-Defensive Films for Health Care Applications. ACS Applied Materials & Interfaces, 2016, 8, 1220-1232.	4.0	68
26	Ultrathin Carbon with Interspersed Graphene/Fullerene-like Nanostructures: A Durable Protective Overcoat for High Density Magnetic Storage. Scientific Reports, 2015, 5, 11607.	1.6	33
27	Understanding the Role of Nitrogen in Plasma-Assisted Surface Modification of Magnetic Recording Media with and without Ultrathin Carbon Overcoats. Scientific Reports, 2015, 5, 7772.	1.6	131
28	Structurally Driven Enhancement of Resonant Tunneling and Nanomechanical Properties in Diamond-like Carbon Superlattices. ACS Applied Materials & Interfaces, 2015, 7, 20726-20735.	4.0	10
29	Durable ultrathin silicon nitride/carbon bilayer overcoats for magnetic heads: The role of enhanced interfacial bonding. Journal of Applied Physics, 2015, 117, .	1.1	15
30	Methods and strategies for the synthesis of diverse nanoparticles and their applications: a comprehensive overview. RSC Advances, 2015, 5, 105003-105037.	1.7	519
31	Enhanced Tribological, Corrosion, and Microstructural Properties of an Ultrathin (<2 nm) Silicon Nitride/Carbon Bilayer Overcoat for High Density Magnetic Storage. ACS Applied Materials & Interfaces, 2014, 6, 9376-9385.	4.0	24
32	Electrical transport in metal-carbon hybrid multijunction devices. Diamond and Related Materials, 2014, 48, 82-87.	1.8	4
33	Probing the Role of an Atomically Thin SiNx Interlayer on the Structure of Ultrathin Carbon Films. Scientific Reports, 2014, 4, 5021.	1.6	45
34	Improved surface properties of $\hat{2}$ -SiAlON by diamond-like carbon coatings. Diamond and Related Materials, 2013, 36, 44-50.	1.8	11
35	Role of base pressure on the structural and nano-mechanical properties of metal/diamond-like carbon bilayers. Applied Surface Science, 2013, 274, 282-287.	3.1	17
36	Optimization of band gap, thickness and carrier concentrations for the development of efficient microcrystalline silicon solar cells: A theoretical approach. Solar Energy, 2013, 97, 176-185.	2.9	25

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37	Strange hardness characteristic of hydrogenated diamond-like carbon thin film by plasma enhanced chemical vapor deposition process. Applied Physics Letters, 2013, 102, .	1.5	32
38	Simulation approach for optimization of device structure and thickness of HIT solar cells to achieve \sim 427% efficiency. Solar Energy, 2013, 88, 31-41.	2.9	81
39	Influence of Silver Incorporation on the Structural and Electrical Properties of Diamond-Like Carbon Thin Films. ACS Applied Materials & Interfaces, 2013, 5, 2725-2732.	4.0	43
40	Photoconductivity and characterization of nitrogen incorporated hydrogenated amorphous carbon thin films. Journal of Applied Physics, 2012, 112, .	1.1	31
41	Structural and Electronic Characterization of Nanocrystalline Diamondlike Carbon Thin Films. ACS Applied Materials & Interfaces, 2012, 4, 5309-5316.	4.0	45
42	Cost Effective Deposition System for Nitrogen Incorporated Diamondlike Carbon Coatings. Plasma Processes and Polymers, 2012, 9, 890-903.	1.6	6
43	Superhard behaviour, low residual stress, and unique structure in diamond-like carbon films by simple bilayer approach. Journal of Applied Physics, 2012, 112, .	1.1	46
44	Studies of pure and nitrogen-incorporated hydrogenated amorphous carbon thin films and their possible application for amorphous silicon solar cells. Journal of Applied Physics, 2012, 111, .	1.1	36
45	Nanoindentation testing on copper/diamond-like carbon bi-layer films. Current Applied Physics, 2012, 12, 247-253.	1.1	24
46	Investigation of properties of Cu containing DLC films produced by PECVD process. Journal of Physics and Chemistry of Solids, 2012, 73, 308-316.	1.9	66
47	Oxygen modified diamond-like carbon as window layer for amorphous silicon solar cells. Solar Energy, 2012, 86, 220-230.	2.9	27
48	Band gap optimization of $\text{p}^{\text{a}}\text{e}^{\text{t}}$ layers of a-Si:H by computer aided simulation for development of efficient solar cell. Solar Energy, 2012, 86, 1470-1476.	2.9	40
49	Nanostructured Titanium/Diamond-Like Carbon Multilayer Films: Deposition, Characterization, and Applications. ACS Applied Materials & Interfaces, 2011, 3, 4268-4278.	4.0	73
50	Nanoindentation measurements on modified diamond-like carbon thin films. Applied Surface Science, 2011, 257, 9953-9959.	3.1	49
51	Studies of nanostructured copper/hydrogenated amorphous carbon multilayer films. Journal of Alloys and Compounds, 2011, 509, 1285-1293.	2.8	51
52	Field emission, morphological and mechanical properties of variety of diamond-like carbon thin films. Applied Physics A: Materials Science and Processing, 2011, 105, 417-425.	1.1	22
53	Role of Metallic Ni e Cr Dots on the Adhesion, Electrical, Optical and Mechanical Properties of Diamondlike Carbon Thin Films. Plasma Processes and Polymers, 2011, 8, 100-107.	1.6	26
54	Correlation of sp^3 and sp^2 fraction of carbon with electrical, optical and nano-mechanical properties of argon-diluted diamond-like carbon films. Applied Surface Science, 2011, 257, 6804-6810.	3.1	113

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55	Fast Tracking of Adulterants and Bacterial Contamination in Food via Raman and Infrared Spectroscopies: Paving the Way for a Healthy and Safe World. Sensors & Diagnostics, 0, , .	1.9	0