Kostya K Ostrikov

List of Publications by Year
in descending order

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833 papers	33,921 citations	4388 86 h-index	10734 138 g-index
873 all docs	873 docs citations	873 times ranked	26332 citing authors

#	Article	IF	Citations
1	Reactive species in non-equilibrium atmospheric-pressure plasmas: Generation, transport, and biological effects. Physics Reports, 2016, 630, 1-84.	25.6	900
2	Colloquium:Reactive plasmas as a versatile nanofabrication tool. Reviews of Modern Physics, 2005, 77, 489-511.	45.6	599
3	Plasma Catalysis: Synergistic Effects at the Nanoscale. Chemical Reviews, 2015, 115, 13408-13446.	47.7	537
4	Guided ionization waves: Theory and experiments. Physics Reports, 2014, 540, 123-166.	25.6	525
5	Plasma nanoscience: from nano-solids in plasmas to nano-plasmas in solids. Advances in Physics, 2013, 62, 113-224.	14.4	486
6	Metallic Biomaterials: Current Challenges and Opportunities. Materials, 2017, 10, 884.	2.9	410
7	HeteroatomâEDoped and OxygenâEFunctionalized Nanocarbons for HighâEPerformance Supercapacitors. Advanced Energy Materials, 2020, 10, 2001239.	19.5	362
8	Carbon nanotube membranes with ultrahigh specific adsorption capacity for water desalination and purification. Nature Communications, 2013, 4, 2220.	12.8	328
9	Plasma-activated water: generation, origin of reactive species and biological applications. Journal Physics D: Applied Physics, 2020, 53, 303001.	2.8	314
10	Dynamic self-organization phenomena in complex ionized gas systems: new paradigms and technological aspects. Physics Reports, 2004, 393, 175-380.	25.6	310
11	Towards lead-free perovskite photovoltaics and optoelectronics by ab-initio simulations. Scientific Reports, 2017, 7, 14025.	3.3	310
12	Cold atmospheric plasma activated water as a prospective disinfectant: the crucial role of peroxynitrite. Green Chemistry, 2018, 20, 5276-5284.	9.0	302
13	Bactericidal Effects of Natural Nanotopography of Dragonfly Wing on Escherichia coli. ACS Applied Materials & Interfaces, 2017, 9, 6746-6760.	8.0	282
14	Perpendicularly Oriented MoSe₂/Graphene Nanosheets as Advanced Electrocatalysts for Hydrogen Evolution. Small, 2015, 11, 414-419.	10.0	276
15	Emerging energy and environmental applications of vertically-oriented graphenes. Chemical Society Reviews, 2015, 44, 2108-2121.	38.1	269
16	Inductively coupled Ar/CH4/H2 plasmas for low-temperature deposition of ordered carbon nanostructures. Journal of Applied Physics, 2004, 95, 2713-2724.	2.5	246
17	Enhancement of optical absorption in thin-film solar cells through the excitation of higher-order nanoparticle plasmon modes. Optics Express, 2009, 17, 10195.	3.4	244
18	Plasma-aided nanofabrication: where is the cutting edge?. Journal Physics D: Applied Physics, 2007, 40, 2223-2241.	2.8	236

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19	In Situ Formation of Oxygen Vacancies Achieving Nearâ€Complete Charge Separation in Planar BiVO₄ Photoanodes. Advanced Materials, 2020, 32, e2001385.	21.0	236
20	Surface Plasmon Enhancement of Optical Absorption in Thin-Film Silicon Solar Cells. Plasmonics, 2009, 4, 107-113.	3.4	212
21	Atmospheric pressure plasmas: Infection control and bacterial responses. International Journal of Antimicrobial Agents, 2014, 43, 508-517.	2.5	208
22	Anti-fouling graphene-based membranes for effective water desalination. Nature Communications, 2018, 9, 683.	12.8	197
23	Photoluminescence mechanism of carbon dots: triggering high-color-purity red fluorescence emission through edge amino protonation. Nature Communications, 2021, 12, 6856.	12.8	192
24	Low-frequency, high-density, inductively coupled plasma sources: Operation and applications. Physics of Plasmas, 2001, 8, 2549-2557.	1.9	184
25	Plasmaâ€Induced Death of HepG2 Cancer Cells: Intracellular Effects of Reactive Species. Plasma Processes and Polymers, 2012, 9, 59-66.	3.0	184
26	Polyoxometalates (POMs): from electroactive clusters to energy materials. Energy and Environmental Science, 2021, 14, 1652-1700.	30.8	184
27	Structureâ€Controlled, Vertical Grapheneâ€Based, Binderâ€Free Electrodes from Plasmaâ€Reformed Butter Enhance Supercapacitor Performance. Advanced Energy Materials, 2013, 3, 1316-1323.	19.5	182
28	Plasma nanoscience: setting directions, tackling grand challenges. Journal Physics D: Applied Physics, 2011, 44, 174001.	2.8	172
29	Anti-bacterial surfaces: natural agents, mechanisms of action, and plasma surface modification. RSC Advances, 2015, 5, 48739-48759.	3.6	172
30	Atmospheric gas plasmaâ€“induced ROS production activates TNF-ASK1 pathway for the induction of melanoma cancer cell apoptosis. Molecular Biology of the Cell, 2014, 25, 1523-1531.	2.1	166
31	Graphene Oxide Synthesis from Agro Waste. Nanomaterials, 2015, 5, 826-834.	4.1	165
32	Sustainable Life Cycles of Natural-Precursor-Derived Nanocarbons. Chemical Reviews, 2016, 116, 163-214.	47.7	163
33	The future for plasma science and technology. Plasma Processes and Polymers, 2019, 16, 1800118.	3.0	160
34	Guided ionization waves: The physics of repeatability. Applied Physics Reviews, 2018, 5, 031102.	11.3	148
35	Effect of atmospheric gas plasmas on cancer cell signaling. International Journal of Cancer, 2014, 134, 1517-1528.	5.1	147
36	Effects of Atmospheric-Pressure N2, He, Air, and O2 Microplasmas on Mung Bean Seed Germination and Seedling Growth. Scientific Reports, 2016, 6, 32603.	3.3	142

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37	Inactivation of a 25.5ÂÂµm Enterococcus faecalis biofilm by a room-temperature, battery-operated, handheld air plasma jet. Journal Physics D: Applied Physics, 2012, 45, 165205.	2.8	138
38	Increasing the length of single-wall carbon nanotubes in a magnetically enhanced arc discharge. Applied Physics Letters, 2008, 92, .	3.3	135
39	RF Plasma Sputtering Deposition of Hydroxyapatite Bioceramics: Synthesis, Performance, and Biocompatibility. Plasma Processes and Polymers, 2005, 2, 373-390.	3.0	132
40	Plasma-assisted self-organized growth of uniform carbon nanocone arrays. Carbon, 2007, 45, 2022-2030.	10.3	132
41	RuO₂-coated vertical graphene hybrid electrodes for high-performance solid-state supercapacitors. Journal of Materials Chemistry A, 2017, 5, 17293-17301.	10.3	132
42	Air Plasma Activation of Catalytic Sites in a Metalâ€Cyanide Framework for Efficient Oxygen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1800085.	19.5	132
43	Synergic bactericidal effects of reduced graphene oxide and silver nanoparticles against Gram-positive and Gram-negative bacteria. Scientific Reports, 2017, 7, 1591.	3.3	130
44	Electronic and optical properties of lead-free hybrid double perovskites for photovoltaic and optoelectronic applications. Scientific Reports, 2019, 9, 718.	3.3	130
45	Microplasmas for Advanced Materials and Devices. Advanced Materials, 2020, 32, e1905508.	21.0	130
46	Holey Ni-Cu phosphide nanosheets as a highly efficient and stable electrocatalyst for hydrogen evolution. Applied Catalysis B: Environmental, 2019, 243, 537-545.	20.2	128
47	Applications and Nanotoxicity of Carbon Nanotubes and Graphene in Biomedicine. Journal of Nanomaterials, 2012, 2012, 1-19.	2.7	125
48	Transition metal dichalcogenides bilayer single crystals by reverse-flow chemical vapor epitaxy. Nature Communications, 2019, 10, 598.	12.8	124
49	Insight into lead-free organic-inorganic hybrid perovskites for photovoltaics and optoelectronics: A first-principles study. Organic Electronics, 2018, 59, 99-106.	2.6	123
50	Single-step ambient-air synthesis of graphene from renewable precursors as electrochemical genosensor. Nature Communications, 2017, 8, 14217.	12.8	122
51	Capacitive deionization with nitrogen-doped highly ordered mesoporous carbon electrodes. Chemical Engineering Journal, 2020, 380, 122514.	12.7	122
52	Electrowetting Control of Cassie-to-Wenzel Transitions in Superhydrophobic Carbon Nanotube-Based Nanocomposites. ACS Nano, 2009, 3, 3031-3036.	14.6	120
53	Single-step synthesis and magnetic separation of graphene and carbon nanotubes in arc discharge plasmas. Nanoscale, 2010, 2, 2281.	5.6	120
54	Elastic and thermodynamic properties of new (Zr3âˆ'Ti)AlC2 MAX-phase solid solutions. Computational Materials Science, 2017, 137, 318-326.	3.0	119

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55	Fast, energy-efficient synthesis of luminescent carbon quantum dots. Green Chemistry, 2014, 16, 2566-2570.	9.0	116
56	Tailoring the electrocatalytic activity of bimetallic nickel-iron diselenide hollow nanochains for water oxidation. Nano Energy, 2018, 47, 275-284.	16.0	116
57	From nucleation to nanowires: a single-step process in reactive plasmas. Nanoscale, 2010, 2, 2012.	5.6	114
58	Control of morphology and electrical properties of self-organized graphenes in a plasma. Carbon, 2011, 49, 4331-4339.	10.3	113
59	MoS2-coated vertical graphene nanosheet for high-performance rechargeable lithium-ion batteries and hydrogen production. NPG Asia Materials, 2016, 8, e268-e268.	7.9	113
60	Multifunctional Solar Waterways: Plasmaâ€Enabled Selfâ€Cleaning Nanoarchitectures for Energyâ€Efficient Desalination. Advanced Energy Materials, 2019, 9, 1901286.	19.5	109
61	Surface charge effects in protein adsorption on nanodiamonds. Nanoscale, 2015, 7, 5726-5736.	5.6	107
62	In situ engineering bi-metallic phospho-nitride bi-functional electrocatalysts for overall water splitting. Applied Catalysis B: Environmental, 2019, 254, 414-423.	20.2	107
63	White paper on the future of plasma science in environment, for gas conversion and agriculture. Plasma Processes and Polymers, 2019, 16, 1700238.	3.0	104
64	Pulsed dc- and sine-wave-excited cold atmospheric plasma plumes: A comparative analysis. Physics of Plasmas, 2010, 17, .	1.9	103
65	Atmospheric pressure gas plasma-induced colorectal cancer cell death is mediated by Nox2â€“ASK1 apoptosis pathways and oxidative stress is mitigated by Srxâ€“Nrf2 anti-oxidant system. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 2827-2837.	4.1	103
66	Nanostructures of various dimensionalities from plasma and neutral fluxes. Journal Physics D: Applied Physics, 2007, 40, 2308-2319.	2.8	101
67	Monoclinic Î²-MoO₃nanosheets produced by atmospheric microplasma: application to lithium-ion batteries. Nanotechnology, 2008, 19, 495302.	2.6	101
68	Plasmas meet nanoparticlesâ€”where synergies can advance the frontier of medicine. Journal Physics D: Applied Physics, 2011, 44, 174018.	2.8	101
69	Physical properties of predicted Ti2CdN versus existing Ti2CdC MAX phase: An ab initio study. Computational Materials Science, 2016, 113, 148-153.	3.0	101
70	Transcutaneous plasma stress: From soft-matter models to living tissues. Materials Science and Engineering Reports, 2019, 138, 36-59.	31.8	101
71	Trimetallic Moâ€“Niâ€“Co selenides nanorod electrocatalysts for highly-efficient and ultra-stable hydrogen evolution. Nano Energy, 2020, 71, 104637.	16.0	100
72	Nanowire sensor response to reactive gas environment. Applied Physics Letters, 2008, 92, .	3.3	99

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73	Intercalation of Glucose in NiMn-Layered Double Hydroxide Nanosheets: an Effective Path Way towards Battery-type Electrodes with Enhanced Performance. Electrochimica Acta, 2016, 216, 35-43.	5.2	98
74	Si quantum dots embedded in an amorphous SiC matrix: nanophase control by non-equilibrium plasma hydrogenation. Nanoscale, 2010, 2, 594.	5.6	97
75	Scalable graphene production: perspectives and challenges of plasma applications. Nanoscale, 2016, 8, 10511-10527.	5.6	97
76	An ultrathin cobalt-based zeolitic imidazolate framework nanosheet array with a strong synergistic effect towards the efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 18877-18883.	10.3	97
77	Length control of He atmospheric plasma jet plumes: Effects of discharge parameters and ambient air. Physics of Plasmas, 2009, 16, .	1.9	95
78	First hafnium-based MAX phase in the 312 family, Hf3AlC2: A first-principles study. Journal of Alloys and Compounds, 2017, 727, 616-626.	5.5	95
79	Interaction of Atmospheric-Pressure Air Microplasmas with Amino Acids as Fundamental Processes in Aqueous Solution. PLoS ONE, 2016, 11, e0155584.	2.5	94
80	The large-scale production of graphene flakes using magnetically-enhanced arc discharge between carbon electrodes. Carbon, 2010, 48, 4570-4574.	10.3	93
81	Pre-lithiation of onion-like carbon/MoS₂nano-urchin anodes for high-performance rechargeable lithium ion batteries. Nanoscale, 2014, 6, 8884-8890.	5.6	93
82	Atomic-layer soft plasma etching of MoS2. Scientific Reports, 2016, 6, 19945.	3.3	93
83	Aqueous alkalineâ€“acid hybrid electrolyte for zinc-bromine battery with 3V voltage window. Energy Storage Materials, 2019, 19, 56-61.	18.0	93
84	Core-leaf onion-like carbon/MnO2 hybrid nano-urchins for rechargeable lithium-ion batteries. Carbon, 2013, 64, 230-236.	10.3	91
85	Ion-acoustic waves in a complex plasma with negative ions. Physical Review E, 2003, 67, 036406.	2.1	89
86	Ion-assisted precursor dissociation and surface diffusion: Enabling rapid, low-temperature growth of carbon nanofibers. Applied Physics Letters, 2007, 90, 251501.	3.3	89
87	The Emerging Role of Gas Plasma in Oncotherapy. Trends in Biotechnology, 2018, 36, 1183-1198.	9.3	89
88	Plasma-assisted self-sharpening of platelet-structured single-crystalline carbon nanocones. Applied Physics Letters, 2007, 91, 113115.	3.3	88
89	High-Mass-Loading Porous Ti₃C₂T_x Films for Ultrahigh-Rate Pseudocapacitors. ACS Energy Letters, 2020, 5, 2266-2274.	17.4	88
90	Interactions of plasma-activated water with biofilms: inactivation, dispersal effects and mechanisms of action. Npj Biofilms and Microbiomes, 2021, 7, 11.	6.4	88

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91	Oxygen Vacancy-Mediated ZnO Nanoparticle Photocatalyst for Degradation of Methylene Blue. Applied Sciences (Switzerland), 2018, 8, 353.	2.5	87
92	Fe_{1â^'x}S/C nanocomposites from sugarcane waste-derived microporous carbon for high-performance lithium ion batteries. Green Chemistry, 2016, 18, 3029-3039.	9.0	83
93	A highly efficient Niâ€“Mo bimetallic hydrogen evolution catalyst derived from a molybdate incorporated Ni-MOF. Journal of Materials Chemistry A, 2018, 6, 9228-9235.	10.3	83
94	Deterministic nanoassembly: Neutral or plasma route?. Applied Physics Letters, 2006, 89, 033109.	3.3	82
95	Microplasma Processed Ultrathin Boron Nitride Nanosheets for Polymer Nanocomposites with Enhanced Thermal Transport Performance. ACS Applied Materials & Interfaces, 2016, 8, 13567-13572.	8.0	82
96	Uniformity of postprocessing of dense nanotube arrays by neutral and ion fluxes. Applied Physics Letters, 2006, 89, 223108.	3.3	81
97	Removal of organophosphorus pesticide residues from Lycium barbarum by gas phase surface discharge plasma. Chemical Engineering Journal, 2018, 342, 401-409.	12.7	81
98	Plasma Breakâ€Down and Reâ€Build: Same Functional Vertical Graphenes from Diverse Natural Precursors. Advanced Materials, 2013, 25, 5638-5642.	21.0	80
99	Deterministic plasma-aided synthesis of high-quality nanoislanded nc-SiC films. Applied Physics Letters, 2007, 90, 173112.	3.3	79
100	Mesoporous cobaltâ€“ironâ€“organic frameworks: a plasma-enhanced oxygen evolution electrocatalyst. Journal of Materials Chemistry A, 2019, 7, 3090-3100.	10.3	79
101	Graphene Array-Based Anti-fouling Solar Vapour Gap Membrane Distillation with High Energy Efficiency. Nano-Micro Letters, 2019, 11, 51.	27.0	79
102	Plasmacatalytic bubbles using CeO2 for organic pollutant degradation. Chemical Engineering Journal, 2021, 403, 126413.	12.7	79
103	The production of self-organized carbon connections between Ag nanoparticles using atmospheric microplasma synthesis. Carbon, 2009, 47, 344-347.	10.3	78
104	Beyond Seashells: Bioinspired 2D Photonic and Photoelectronic Devices. Advanced Functional Materials, 2019, 29, 1901460.	14.9	78
105	Rapid, low-temperature synthesis of nc-Si in high-density, non-equilibrium plasmas: enabling nanocrystallinity at very low hydrogen dilution. Journal of Materials Chemistry, 2009, 19, 5134.	6.7	77
106	Single-step, rapid low-temperature synthesis of Si quantum dots embedded in an amorphous SiC matrix in high-density reactive plasmas. Acta Materialia, 2010, 58, 560-569.	7.9	77
107	Synergistic Fusion of Vertical Graphene Nanosheets and Carbon Nanotubes for Highâ€Performance Supercapacitor Electrodes. ChemSusChem, 2014, 7, 2317-2324.	6.8	77
108	Microplasma Bubbles: Reactive Vehicles for Biofilm Dispersal. ACS Applied Materials & Interfaces, 2019, 11, 20660-20669.	8.0	76

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109	Emerging technologies for biodiesel production: Processes, challenges, and opportunities. Biomass and Bioenergy, 2022, 163, 106521.	5.7	76
110	Two-Dimensional Simulation of Nanoassembly Precursor Species in Ar+H2+C2H2 Reactive Plasmas. Plasma Processes and Polymers, 2007, 4, 27-40.	3.0	75
111	Self-organized vertically aligned single-crystal silicon nanostructures with controlled shape and aspect ratio by reactive plasma etching. Applied Physics Letters, 2009, 95, 111505.	3.3	75
112	Self-assembly of uniform carbon nanotip structures in chemically active inductively coupled plasmas. Diamond and Related Materials, 2004, 13, 1923-1929.	3.9	74
113	Vertical graphene gas- and bio-sensors via catalyst-free, reactive plasma reforming of natural honey. Carbon, 2013, 60, 221-228.	10.3	74
114	Design of Supercapacitor Electrodes Using Molecular Dynamics Simulations. Nano-Micro Letters, 2018, 10, 33.	27.0	73
115	White paper on the future of plasma science and technology in plastics and textiles. Plasma Processes and Polymers, 2019, 16, 1700228.	3.0	73
116	Recent advances in plasma modification of 2D transition metal dichalcogenides. Nanoscale, 2019, 11, 19202-19213.	5.6	73
117	Niâ€“Co hydroxide nanosheets on plasma-reduced Co-based metalâ€“organic nanocages for electrocatalytic water oxidation. Journal of Materials Chemistry A, 2019, 7, 4950-4959.	10.3	73
118	Plasma-induced on-surface sulfur vacancies in NiCo₂S₄ enhance the energy storage performance of supercapatteries. Journal of Materials Chemistry A, 2020, 8, 9278-9291.	10.3	73
119	Synthesis of functional nanoassemblies in reactive plasmas. Vacuum, 2006, 80, 1126-1131.	3.5	72
120	Atmospheric-pressure plasma jets: Effect of gas flow, active species, and snake-like bullet propagation. Physics of Plasmas, 2013, 20, .	1.9	72
121	Bi-metallic nitroxide nanodot-decorated tri-metallic sulphide nanosheets by on-electrode plasma-hydrothermal sprouting for overall water splitting. Applied Catalysis B: Environmental, 2020, 261, 118254.	20.2	72
122	Green inhibitors for steel corrosion in acidic environment: state of art. Materials Today Sustainability, 2020, 10, 100044.	4.1	72
123	Integrated plasma-aided nanofabrication facility: Operation, parameters, and assembly of quantum structures and functional nanomaterials. Vacuum, 2006, 80, 621-630.	3.5	70
124	Selective neuronal differentiation of neural stem cells induced by nanosecond microplasma agitation. Stem Cell Research, 2014, 12, 387-399.	0.7	70
125	Quantification of plasma produced OH radical density for water sterilization. Plasma Processes and Polymers, 2018, 15, 1700241.	3.0	70
126	Template-Directed Bifunctional Dodecahedral CoP/CN@MoS₂ Electrocatalyst for High Efficient Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 36649-36657.	8.0	70

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127	Techniques to enhance magnetic permeability in microwave absorbing materials. Applied Materials Today, 2020, 19, 100596.	4.3	70
128	Low-temperature assembly of ordered carbon nanotip arrays in low-frequency, high-density inductively coupled plasmas. Surface and Coatings Technology, 2005, 191, 49-53.	4.8	69
129	Control of core-shell structure and elemental composition of binary quantum dots. Applied Physics Letters, 2007, 90, 193110.	3.3	69
130	Structural evolution of nanocrystalline silicon thin films synthesized in high-density, low-temperature reactive plasmas. Nanotechnology, 2009, 20, 215606.	2.6	68
131	Energy efficiency in nanoscale synthesis using nanosecond plasmas. Scientific Reports, 2013, 3, 1221.	3.3	68
132	Nitrogen-Doped Carbon-Encased Bimetallic Selenide for High-Performance Water Electrolysis. Nano-Micro Letters, 2019, 11, 67.	27.0	67
133	MXene-Based Electrodes for Supercapacitor Energy Storage. Energy & Fuels, 2022, 36, 2390-2406.	5.1	67
134	Multiphase nanosheet-nanowire cerium oxide and nickel-cobalt phosphide for highly-efficient electrocatalytic overall water splitting. Applied Catalysis B: Environmental, 2022, 316, 121678.	20.2	67
135	Tailoring microplasma nanofabrication: from nanostructures to nanoarchitectures. Journal Physics D: Applied Physics, 2009, 42, 092002.	2.8	66
136	Crystalline Si nanoparticles below crystallization threshold: Effects of collisional heating in non-thermal atmospheric-pressure microplasmas. Applied Physics Letters, 2014, 104, .	3.3	66
137	Nanopowder management and control of plasma parameters in electronegative SiH4 plasmas. Journal of Applied Physics, 2003, 94, 6097-6107.	2.5	65
138	Microscopic ion fluxes in plasma-aided nanofabrication of ordered carbon nanotip structures. Journal of Applied Physics, 2005, 98, 064304.	2.5	65
139	Defect Healing and Enhanced Nucleation of Carbon Nanotubes by Low-Energy Ion Bombardment. Physical Review Letters, 2013, 110, 065501.	7.8	65
140	Cancerâ€Targeting Graphene Quantum Dots: Fluorescence Quantum Yields, Stability, and Cell Selectivity. Advanced Functional Materials, 2019, 29, 1805860.	14.9	65
141	Low-Temperature Plasma for Biology, Hygiene, and Medicine: Perspective and Roadmap. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 127-157.	3.7	64
142	Low-temperature plasmas in carbon nanostructure synthesis. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	1.2	63
143	Plasma-tuneable oxygen functionalization of vertical graphenes enhance electrochemical capacitor performance. Energy Storage Materials, 2018, 14, 297-305.	18.0	63
144	Capacitative deionization using commercial activated carbon fiber decorated with polyaniline. Journal of Colloid and Interface Science, 2019, 537, 247-255.	9.4	63

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145	Plasma-enabled catalyst-free conversion of ethanol to hydrogen gas and carbon dots near room temperature. Chemical Engineering Journal, 2020, 382, 122745.	12.7	63
146	Future antiviral surfaces: Lessons from COVID-19 pandemic. Sustainable Materials and Technologies, 2020, 25, e00203.	3.3	63
147	Cold atmospheric pressure plasmas in dermatology: Sources, reactive agents, and therapeutic effects. Plasma Processes and Polymers, 2020, 17, 1900218.	3.0	63
148	Sustainable ammonia production by non-thermal plasmas: Status, mechanisms, and opportunities. Chemical Engineering Journal, 2021, 421, 129544.	12.7	63
149	Low-pressure diffusion equilibrium of electronegative complex plasmas. Physical Review E, 2003, 67, 056408.	2.1	62
150	Plasmonic Ag nanoparticles via environment-benign atmospheric microplasma electrochemistry. Nanotechnology, 2013, 24, 095604.	2.6	62
151	Carbon nanostructures for hard tissue engineering. RSC Advances, 2013, 3, 11058.	3.6	62
152	Underwater microplasma bubbles for efficient and simultaneous degradation of mixed dye pollutants. Science of the Total Environment, 2021, 750, 142295.	8.0	62
153	Nanocarbon-Enhanced 2D Photoelectrodes: A New Paradigm in Photoelectrochemical Water Splitting. Nano-Micro Letters, 2021, 13, 24.	27.0	62
154	Reactive oxygen plasma-enabled synthesis of nanostructured CdO: tailoring nanostructures through plasmaâ€“surface interactions. Nanotechnology, 2008, 19, 405605.	2.6	61
155	Pseudomonas aeruginosa Biofilm Response and Resistance to Cold Atmospheric Pressure Plasma Is Linked to the Redox-Active Molecule Phenazine. PLoS ONE, 2015, 10, e0130373.	2.5	61
156	Vacancy defect engineering of BiVO₄photoanodes for photoelectrochemical water splitting. Nanoscale, 2021, 13, 17989-18009.	5.6	61
157	Effective Control of Nanostructured Phases in Rapid, Room-Temperature Synthesis of Nanocrystalline Si in High-Density Plasmas. Crystal Growth and Design, 2009, 9, 2863-2867.	3.0	60
158	The effect of temperature on the mechanism of photoluminescence from plasma-nucleated, nitrogenated carbon nanotips. Carbon, 2012, 50, 3561-3571.	10.3	60
159	Single-walled carbon nanotube-based polymer monoliths for the enantioselective nano-liquid chromatographic separation of racemic pharmaceuticals. Journal of Chromatography A, 2014, 1360, 100-109.	3.7	60
160	Scalable Production of Integrated Graphene Nanoarchitectures for Ultrafast Solar-Thermal Conversion and Vapor Generation. Matter, 2019, 1, 1017-1032.	10.0	60
161	Plasma-heteroatom-doped Ni-V-Fe trimetallic phospho-nitride as high-performance bifunctional electrocatalyst. Applied Catalysis B: Environmental, 2020, 268, 118440.	20.2	60
162	Water-sprouted, plasma-enhanced Ni-Co phospho-nitride nanosheets boost electrocatalytic hydrogen and oxygen evolution. Chemical Engineering Journal, 2020, 402, 126257.	12.7	60

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163	Silica Nanoparticles Treated by Cold Atmospheric-Pressure Plasmas Improve the Dielectric Performance of Organicâ€“Inorganic Nanocomposites. ACS Applied Materials & Interfaces, 2012, 4, 2637-2642.	8.0	59
164	Synergistic Effect of Atmospheric-pressure Plasma and TiO2 Photocatalysis on Inactivation of Escherichia coli Cells in Aqueous Media. Scientific Reports, 2016, 6, 39552.	3.3	59
165	Single-Atom Ru-Implanted Metalâ€“Organic Framework/MnO₂ for the Highly Selective Oxidation of NO_x by Plasma Activation. ACS Catalysis, 2020, 10, 10185-10196.	11.2	58
166	Fast Microplasma Synthesis of Blue Luminescent Carbon Quantum Dots at Ambient Conditions. Plasma Processes and Polymers, 2015, 12, 59-65.	3.0	57
167	Pretreatment and fermentation of lignocellulosic biomass: reaction mechanisms and process engineering. Reaction Chemistry and Engineering, 2020, 5, 2017-2047.	3.7	57
168	Oriented Carbon Nanostructures by Plasma Processing: Recent Advances and Future Challenges. Micromachines, 2018, 9, 565.	2.9	56
169	Coupling bimetallic Ni-Fe catalysts and nanosecond pulsed plasma for synergistic low-temperature CO2 methanation. Chemical Engineering Journal, 2021, 420, 127693.	12.7	56
170	Microfluidic plasmas: Novel technique for chemistry and chemical engineering. Chemical Engineering Journal, 2021, 417, 129355.	12.7	56
171	Highly Efficient Silicon Nanoarray Solar Cells by a Singleâ€Step Plasmaâ€Based Process. Advanced Energy Materials, 2011, 1, 373-376.	19.5	54
172	Kinetics of Low-Pressure, Low-Temperature Graphene Growth: Toward Single-Layer, Single-Crystalline Structure. ACS Nano, 2012, 6, 10276-10286.	14.6	54
173	Low-Temperature CO₂ Methanation: Synergistic Effects in Plasma-Ni Hybrid Catalytic System. ACS Sustainable Chemistry and Engineering, 2020, 8, 1888-1898.	6.7	54
174	Nanohybrid TiN/Vertical graphene for high-performance supercapacitor applications. Energy Storage Materials, 2020, 26, 138-146.	18.0	54
175	A zinc bromine â€œsupercapatteryâ€•system combining triple functions of capacitive, pseudocapacitive and battery-type charge storage. Materials Horizons, 2020, 7, 495-503.	12.2	54
176	Deterministic shape control in plasma-aided nanotip assembly. Journal of Applied Physics, 2006, 100, 036104.	2.5	53
177	Low-temperature plasma-assisted growth of optically transparent, highly oriented nanocrystalline AlN. Journal of Applied Physics, 2007, 101, 024312.	2.5	53
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