Wei-Dong Xia

List of Publications by Year
in descending order

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67 papers	1,256 citations	430442 18 h-index	414034 32 g-index
68 all docs	68 docs citations	68 times ranked	981 citing authors

#	Article	IF	Citations
1	Effects and Mechanism of Atmospheric-Pressure Dielectric Barrier Discharge Cold Plasmaon Lactate Dehydrogenase (LDH) Enzyme. Scientific Reports, 2015, 5, 10031.	1.6	119
2	Preferential production of reactive species and bactericidal efficacy of gas-liquid plasma discharge. Chemical Engineering Journal, 2019, 362, 402-412.	6.6	102
3	Bactericidal Effects of Plasma Induced Reactive Species in Dielectric Barrier Gasâ€“Liquid Discharge. Plasma Chemistry and Plasma Processing, 2017, 37, 415-431.	1.1	69
4	Characteristics of DC Gas-Liquid Phase Atmospheric-Pressure Plasma and Bacteria Inactivation Mechanism. Plasma Processes and Polymers, 2015, 12, 252-259.	1.6	68
5	Inactivation Effects of Nonâ€Thermal Atmosphericâ€Pressure Helium Plasma Jet on Staphylococcus aureus Biofilms. Plasma Processes and Polymers, 2015, 12, 827-835.	1.6	63
6	Dynamics of large-scale magnetically rotating arc plasmas. Applied Physics Letters, 2006, 88, 211501.	1.5	44
7	Synthesis of carbon nanoparticles in a non-thermal plasma process. Chemical Engineering Science, 2020, 227, 115921.	1.9	44
8	A numerical model of non-equilibrium thermal plasmas. I. Transport properties. Physics of Plasmas, 2013, 20, 033508.	0.7	43
9	Ozone Generation by Hybrid Discharge Combined with Catalysis. Ozone: Science and Engineering, 2007, 29, 107-112.	1.4	40
10	The morphological transformation of carbon materials from nanospheres to graphene nanoflakes by thermal plasma. Carbon, 2019, 155, 521-530.	5.4	36
11	Selective effects of non-thermal atmospheric plasma on triple-negative breast normal and carcinoma cells through different cell signaling pathways. Scientific Reports, 2017, 7, 7980.	1.6	35
12	Continuous synthesis of graphene nano-flakes by a magnetically rotating arc at atmospheric pressure. Carbon, 2019, 148, 394-402.	5.4	35
13	Genetic effects of an air discharge plasma on Staphylococcus aureus at the gene transcription level. Applied Physics Letters, 2015, 106, .	1.5	30
14	A numerical model of non-equilibrium thermal plasmas. II. Governing equations. Physics of Plasmas, 2013, 20, 033509.	0.7	27
15	Effect of the Magnetic Field on the Magnetically Stabilized Gliding Arc Discharge and Its Application in the Preparation of Carbon Black Nanoparticles. Plasma Chemistry and Plasma Processing, 2018, 38, 1223-1238.	1.1	26
16	Numerical Study of DC Argon Arc with Axial Magnetic Fields. Plasma Chemistry and Plasma Processing, 2015, 35, 61-74.	1.1	23
17	Synthesis of Ultrasmall NiCo₂O₄ Nanoparticle-Decorated N-Doped Graphene Nanosheets as an Effective Catalyst for Znâ€“Air Batteries. Energy & Fuels, 2021, 35, 14188-14196.	2.5	22
18	Effects of Buffer Gases on Graphene Flakes Synthesis in Thermal Plasma Process at Atmospheric Pressure. Nanomaterials, 2020, 10, 309.	1.9	21

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19	Roles of membrane protein damage and intracellular protein damage in death of bacteria induced by atmospheric-pressure air discharge plasmas. RSC Advances, 2018, 8, 21139-21149.	1.7	20
20	Synthesis of graphene flakes using a non-thermal plasma based on magnetically stabilized gliding arc discharge. Fullerenes Nanotubes and Carbon Nanostructures, 2020, 28, 846-856.	1.0	17
21	Comparison of the Effects Induced by Plasma Generated Reactive Species and H₂O₂ on Lactate Dehydrogenase (LDH) Enzyme. IEEE Transactions on Plasma Science, 2018, 46, 2742-2752.	0.6	15
22	Experimental Observations of Constricted and Diffuse Anode Attachment in a Magnetically Rotating Arc at Atmospheric Pressure. Plasma Chemistry and Plasma Processing, 2019, 39, 407-421.	1.1	15
23	One-step synthesis of SiC/C nanocomposites by atmospheric thermal plasmas for efficient microwave absorption. Ceramics International, 2022, 48, 10391-10402.	2.3	15
24	Direct Observation of Anode Arc Root Behaviors in a Non-transferred Arc Plasma Device with Multiple Cathodes. Plasma Chemistry and Plasma Processing, 2017, 37, 371-382.	1.1	14
25	Observation of Thermal Cathodic Hot Spots in a Magnetically Rotating Arc Plasma Generator. IEEE Transactions on Plasma Science, 2015, 43, 3716-3720.	0.6	13
26	Synthesis of few-layer graphene flakes by magnetically rotating arc plasma: effects of input power and feedstock injection position. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	13
27	Simple synthesis of ultrafine amorphous silicon carbide nanoparticles by atmospheric plasmas. Materials Letters, 2021, 299, 130072.	1.3	13
28	Simulation of Magnetically Dispersed Arc Plasma. Plasma Science and Technology, 2012, 14, 118-121.	0.7	12
29	Evolution of magnetically rotating arc into large area arc plasma. Chinese Physics B, 2015, 24, 065206.	0.7	12
30	Diffuse and spot mode of cathode arc attachments in an atmospheric magnetically rotating argon arc. Journal Physics D: Applied Physics, 2016, 49, 085202.	1.3	12
31	Observation of arc modes in a magnetically rotating arc plasma generator. Contributions To Plasma Physics, 2017, 57, 395-403.	0.5	12
32	ICCD Imaging of Coexisting Arc Roots and Arc Column in a Large-Area Dispersed Arc-Plasma Source. IEEE Transactions on Plasma Science, 2008, 36, 1084-1085.	0.6	11
33	Effects of nitrogen on ozone synthesis in packed-bed dielectric barrier discharge. Plasma Science and Technology, 2018, 20, 095501.	0.7	11
34	Pressure-dependent synthesis of graphene nanoflakes using Ar/H2/CH4 non-thermal plasma based on rotating arc discharge. Diamond and Related Materials, 2021, 111, 108176.	1.8	11
35	Comparison of thermal and electric characteristic for free-burning arc using coupled and decoupled sheath models. Journal Physics D: Applied Physics, 2017, 50, 425202.	1.3	10
36	An Experimental Investigation of Cathode Spot Motion in a Magnetically Rotating Arc Plasma Generator at Atmospheric Pressure. Plasma Chemistry and Plasma Processing, 2019, 39, 259-276.	1.1	10

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37	Phenomena of Multiarc Roots and Parallel Arcs in a Large-Scale Magnetically Rotating Arc Plasma Generator. IEEE Transactions on Plasma Science, 2013, 41, 601-605.	0.6	9
38	Axial Magnetic Field Effects on Xenon Short-Arc Lamps. Plasma Science and Technology, 2014, 16, 1096-1099.	0.7	9
39	Evolution of Cathodic Arc Roots in a Large-Scale Magnetically Rotating Arc Plasma. IEEE Transactions on Plasma Science, 2008, 36, 1048-1049.	0.6	8
40	Hydrogen production by reforming methane in a corona inducing dielectric barrier discharge and catalyst hybrid reactor. Science Bulletin, 2011, 56, 2162-2166.	1.7	8
41	Study of Non-Thermal DC Arc Plasma of CH4/Ar at Atmospheric Pressure Using Optical Emission Spectroscopy and Mass Spectrometry. Plasma Science and Technology, 2015, 17, 743-748.	0.7	8
42	Thermal and electrical influences from bulk plasma in cathode heating modeling. Plasma Sources Science and Technology, 2017, 26, 025002.	1.3	8
43	Synthesis of ultrafine silicon carbide nanoparticles using nonthermal arc plasma at atmospheric pressure. Journal of the American Ceramic Society, 2021, 104, 3883-3894.	1.9	8
44	Study on formation mechanism of three types of carbon nanoparticles during ethylene pyrolysis in thermal plasmas. Diamond and Related Materials, 2021, 117, 108445.	1.8	8
45	Modification of plasma-generated SiC nanoparticles by heat treatment under air atmosphere. Journal of Alloys and Compounds, 2022, 900, 163507.	2.8	8
46	Production of long, laminar plasma jets at atmospheric pressure with multiple cathodes. Contributions To Plasma Physics, 2017, 57, 58-66.	0.5	7
47	Spot and diffuse mode of cathode attachments in a magnetically rotating arc plasma generator at atmospheric pressure. Journal of Applied Physics, 2019, 125, .	1.1	7
48	Images of a Large-Scale Magnetically Rotating Arc. IEEE Transactions on Plasma Science, 2008, 36, 1080-1081.	0.6	6
49	Parametric Study on Arc Behavior of Magnetically Diffused Arc. Plasma Science and Technology, 2016, 18, 6-11.	0.7	6
50	Comparison of Reynolds average Navierâ€“Stokes turbulence models in numerical simulations of the DC arc plasma torch. Plasma Science and Technology, 2020, 22, 025401.	0.7	6
51	Effects of hydrogen/carbon molar ratio on graphene nano-flakes synthesis by a non-thermal plasma process. Diamond and Related Materials, 2020, 108, 107932.	1.8	6
52	Large-scale in-situ synthesis of nitrogen-doped graphene using magnetically rotating arc plasma. Diamond and Related Materials, 2021, 116, 108417.	1.8	6
53	Axial Magnetic-Field Effects on an Argon Arc Between Pin and Plate Electrodes at Atmospheric Pressure. IEEE Transactions on Plasma Science, 2008, 36, 1078-1079.	0.6	5
54	Approximate explicit analytic solution of the Elenbaas-Heller equation. Journal of Applied Physics, 2016, 120, .	1.1	5

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55	Production of a large area diffuse arc plasma with multiple cathode. Chinese Physics B, 2017, 26, 025202.	0.7	5
56	Products on electrodes in an argon-methane magnetically rotating arc at atmospheric pressure. Fullerenes Nanotubes and Carbon Nanostructures, 2019, 27, 498-505.	1.0	5
57	Differential sensitivities of HeLa and MCF-7 cells at G1-, S-, G2- and M-phase of the cell cycle to cold atmospheric plasma. Journal Physics D: Applied Physics, 2020, 53, 125202.	1.3	5
58	The Effects of Graphite Particles on arc Plasma Characteristics. Plasma Chemistry and Plasma Processing, 2021, 41, 1183-1203.	1.1	5
59	Three-dimensional non-equilibrium modeling of a DC multi-cathode arc plasma torch. Plasma Science and Technology, 2021, 23, 075404.	0.7	5
60	Spheroidization of Tungsten Powder by a DC Arc Plasma Generator with Multiple Cathodes. Plasma Chemistry and Plasma Processing, 0, , .	1.1	5
61	Continuous preparation of carbon nano-onions in a non-thermal plasma process. Materials Letters, 2020, 272, 127808.	1.3	4
62	In situ synthesis of nitrogen-doped graphene nanoflakes using non-thermal arc plasma. Journal of Applied Physics, 2021, 129, .	1.1	4
63	Fabrication of ultra-small SiC nanoparticles with adjustable size, stoichiometry and photoluminescence by AC multi-arc plasmas. Ceramics International, 2022, 48, 632-641.	2.3	4
64	Synthesis of SiC/graphene nanocomposites by atmospheric plasmas for improving efficient of microwave absorption. Fullerenes Nanotubes and Carbon Nanostructures, 2022, 30, 1212-1220.	1.0	2
65	Back Cover: Plasma Process. Polym. 3âˆ•2015. Plasma Processes and Polymers, 2015, 12, 298-298.	1.6	1
66	Numerical analysis for magnetically dispersed ar arc plasma at atmospheric pressure with different shape of cathode. , 2012, , .		0
67	A novel anode attachment mode in argon-helium free-burning arcs at atmospheric pressure. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 3114-3117.	0.9	0