Tao Shao

List of Publications by Citations

209 papers	4,491 citations	36 h-index	55 g-index
249 ext. papers	5,865 ext. citations	3.5 avg, IF	5.93 L-index

#	Paper	IF	Citations
209	A Scalable, High-Throughput, and Environmentally Benign Approach to Polymer Dielectrics Exhibiting Significantly Improved Capacitive Performance at High Temperatures. *Advanced Materials*, **2018**, 30, e1805672	24	145
208	Atmospheric-pressure pulsed discharges and plasmas: mechanism, characteristics and applications. *High Voltage*, **2018**, 3, 14-20	4.1	143
207	Enhanced surface flashover strength in vacuum of polymethylmethacrylate by surface modification using atmospheric-pressure dielectric barrier discharge. *Applied Physics Letters*, **2014**, 105, 071607	3.4	139
206	Surface modification of polyimide films using unipolar nanosecond-pulse DBD in atmospheric air. *Applied Surface Science*, **2010**, 256, 3888-3894	6.7	139
205	Surface modification of epoxy using an atmospheric pressure dielectric barrier discharge to accelerate surface charge dissipation. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 1557-1565	2.3	103
204	Diffuse discharge, runaway electron, and x-ray in atmospheric pressure air in an inhomogeneous electrical field in repetitive pulsed modes. *Applied Physics Letters*, **2011**, 98, 021503	3.4	99
203	A Compact Repetitive Unipolar Nanosecond-Pulse Generator for Dielectric Barrier Discharge Application. *IEEE Transactions on Plasma Science*, **2010**, 38, 1651-1655	1.3	87
202	The synergistic effects of the micro-BN and nano-Al2O3 in micro-nano composites on enhancing the thermal conductivity for insulating epoxy resin. *Composites Science and Technology*, **2018**, 168, 420-428	8.6	83
201	Effect of O2 additive on spatial uniformity of atmospheric-pressure helium plasma jet array driven by microsecond-duration pulses. *Applied Physics Letters*, **2014**, 105, 044102	3.4	79
200	Effect of cold plasma on blueberry juice quality. *Food Chemistry*, **2019**, 290, 79-86	8.5	71
199	Surface modification of polymethyl-methacrylate using atmospheric pressure argon plasma jets to improve surface flashover performance in vacuum. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2015**, 22, 1747-1754	2.3	70
198	Comparison between helium and argon plasma jets on improving the hydrophilic property of PMMA surface. *Applied Surface Science*, **2016**, 367, 401-406	6.7	68
197	Plasma surface treatment to improve surface charge accumulation and dissipation of epoxy resin exposed to DC and nanosecond-pulse voltages. *Journal Physics D: Applied Physics*, **2017**, 50, 405203	3	68
196	Microsecond pulse driven Ar/CF4 plasma jet for polymethylmethacrylate surface modification at atmospheric pressure. *Applied Surface Science*, **2015**, 328, 509-515	6.7	68
195	. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2013**, 20, 1101-1111	2.3	67
194	Nanosecond pulsed plasma assisted dry reforming of CH4: The effect of plasma operating parameters. *Applied Energy*, **2019**, 243, 132-144	10.7	64
193	Highly efficient conversion of methane using microsecond and nanosecond pulsed spark discharges. *Applied Energy*, **2018**, 226, 534-545	10.7	62

192	Diffuse discharge produced by repetitive nanosecond pulses in open air, nitrogen, and helium. *Journal of Applied Physics*, **2013**, 113, 093301	2.5	61
191	Hydrophobic treatment on polymethylmethacrylate surface by nanosecond-pulse DBDs in CF4 at atmospheric pressure. *Applied Surface Science*, **2014**, 311, 468-477	6.7	60
190	Surface Treatment of Polyethylene Terephthalate to Improving Hydrophilicity Using Atmospheric Pressure Plasma Jet. *IEEE Transactions on Plasma Science*, **2013**, 41, 1627-1634	1.3	58
189	Efficient Nitrogen Fixation to Ammonia through Integration of Plasma Oxidation with Electrocatalytic Reduction. *Angewandte Chemie - International Edition*, **2021**, 60, 14131-14137	16.4	56
188	. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2010**, 17, 1830-1837	2.3	53
187	Surface Treatment of Polyethylene Terephthalate Films Using DBD Excited by Repetitive Unipolar Nanosecond Pulses in Air at Atmospheric Pressure. *IEEE Transactions on Plasma Science*, **2010**, 38, 1517-1526	1.3	50
186	Comparison of Atmospheric-Pressure He and Ar Plasma Jets Driven by Microsecond Pulses. *IEEE Transactions on Plasma Science*, **2015**, 43, 726-732	1.3	48
185	Electrical characterization of dielectric barrier discharge driven by repetitive nanosecond pulses in atmospheric air. *Journal of Electrostatics*, **2009**, 67, 215-221	1.7	47
184	Hydrophobic surface modification of epoxy resin using an atmospheric pressure plasma jet array. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2016**, 23, 2288-2293	2.3	44
183	Correlation between surface charge and DC surface flashover of plasma treated epoxy resin. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2018**, 25, 1267-1274	2.3	44
182	Temporal evolution of nanosecond-pulse dielectric barrier discharges in open air. *Europhysics Letters*, **2012**, 97, 55005	1.6	44
181	Time behaviour of discharge current in case of nanosecond-pulse surface dielectric barrier discharge. *Europhysics Letters*, **2013**, 101, 45002	1.6	44
180	Experimental investigation of surface flashover in vacuum using nanosecond pulses. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2007**, 14, 634-642	2.3	44
179	Surface ionization wave propagation in the nanosecond pulsed surface dielectric barrier discharge: the influence of dielectric material and pulse repetition rate. *Plasma Sources Science and Technology*, **2020**, 29, 044001	3.5	43
178	Two discharge modes in an atmospheric pressure plasma jet array in argon. *Plasma Sources Science and Technology*, **2016**, 25, 01LT01	3.5	43
177	. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2013**, 20, 1304-1314	2.3	42
176	Uniformity optimization and dynamic studies of plasma jet array interaction in argon. *Physics of Plasmas*, **2017**, 24, 093507	2.1	42
175	Application of dynamic displacement current for diagnostics of subnanosecond breakdowns in an inhomogeneous electric field. *Review of Scientific Instruments*, **2013**, 84, 053506	1.7	39

174	Spark discharge formation in an inhomogeneous electric field under conditions of runaway electron generation. *Journal of Applied Physics*, **2012**, 111, 023304	2.5	39
173	Surface modifications of polystyrene and their stability: A comparison of DBD plasma deposition and direct fluorination. *Applied Surface Science*, **2018**, 459, 300-308	6.7	36
172	Nanosecond-pulse gliding discharges between point-to-point electrodes in open air. *Plasma Sources Science and Technology*, **2014**, 23, 035004	3.5	34
171	Surface modifications of polymethylmetacrylate films using atmospheric pressure air dielectric barrier discharge plasma. *Vacuum*, **2012**, 86, 1305-1312	3.7	34
170	The role of fast electrons in diffuse discharge formation: Monte Carlo simulation. *Plasma Sources Science and Technology*, **2017**, 26, 085008	3.5	34
169	Runaway electron preionized diffuse discharges in atmospheric pressure air with a point-to-plane gap in repetitive pulsed mode. *Journal of Applied Physics*, **2011**, 109, 083306	2.5	34
168	Atmospheric-pressure pulsed plasma actuators for flow control: shock wave and vortex characteristics. *Plasma Sources Science and Technology*, **2019**, 28, 064001	3.5	34
167	Repetitive nanosecond-pulse discharge in a highly nonuniform electric field in atmospheric air: X-ray emission and runaway electron generation. *Laser and Particle Beams*, **2012**, 30, 369-378	0.9	33
166	Numerical simulation on a nanosecond-pulse surface dielectric barrier discharge actuator in near space. *Journal Physics D: Applied Physics*, **2012**, 45, 145201	3	32
165	Atmospheric pressure plasmas and direct fluorination treatment of Al2O3-filled epoxy resin: A comparison of surface charge dissipation. *Surface and Coatings Technology*, **2019**, 362, 1-11	4.4	31
164	Effect of pulse polarity on the temporal and spatial emission of an atmospheric pressure helium plasma jet. *Plasma Sources Science and Technology*, **2016**, 25, 015020	3.5	31
163	Effect of cathode materials on the generation of runaway electron beams and X-rays in atmospheric pressure air. *Laser and Particle Beams*, **2013**, 31, 353-364	0.9	29
162	Electrical Model and Experimental Analysis of the Atmospheric-Pressure Homogeneous Dielectric Barrier Discharge in He. *IEEE Transactions on Plasma Science*, **2012**, 40, 883-891	1.3	28
161	Runaway electrons and x-rays from a corona discharge in atmospheric pressure air. *New Journal of Physics*, **2011**, 13, 113035	2.9	28
160	. *IEEE Transactions on Plasma Science*, **2008**, 36, 1358-1359	1.3	28
159	. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2015**, 22, 1907-1915	2.3	27
158	Temporal evolution of atmosphere pressure plasma jets driven by microsecond pulses with positive and negative polarities. *Europhysics Letters*, **2014**, 107, 65004	1.6	27
157	Deposition of SiCxHyOzthin film on epoxy resin by nanosecond pulsed APPJ for improving the surface insulating performance. *Plasma Science and Technology*, **2018**, 20, 025504	1.5	26

156	A Gliding Discharge in Open Air Sustained by High-Voltage Resonant AC Power Supply. *IEEE Transactions on Plasma Science*, **2012**, 40, 2843-2849	1.3	26
155	Formation of hydrophobic coating on PMMA surface using unipolar nanosecond-pulse DBD in atmospheric air. *Journal of Electrostatics*, **2013**, 71, 435-439	1.7	26
154	A Cascaded Microsecond-Pulse Generator for Discharge Applications. *IEEE Transactions on Plasma Science*, **2014**, 42, 1721-1728	1.3	25
153	Comparison of AC and Nanosecond-Pulsed DBDs in Atmospheric Air. *IEEE Transactions on Plasma Science*, **2011**, 39, 2076-2077	1.3	25
152	Comparison of experiment and simulation on dielectric barrier discharge driven by 50Hz AC power in atmospheric air. *Journal of Electrostatics*, **2010**, 68, 445-452	1.7	25
151	A Comparative Study of Water Electrodes Versus Metal Electrodes for Excitation of Nanosecond-Pulse Homogeneous Dielectric Barrier Discharge in Open Air. *IEEE Transactions on Plasma Science*, **2013**, 41, 3069-3078	1.3	24
150	Breakdown Phenomena in Nitrogen Due to Repetitive Nanosecond-pulses. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2007**, 14, 813-819	2.3	24
149	Energy pooling mechanism for catalyst-free methane activation in nanosecond pulsed non-thermal plasmas. *Chemical Engineering Journal*, **2020**, 396, 125185	14.7	23
148	Dynamics of Plasma Bullets in a Microsecond-Pulse-Driven Atmospheric-Pressure He Plasma Jet. *IEEE Transactions on Plasma Science*, **2016**, 44, 393-397	1.3	23
147	Plasma bullet propagation and reflection from metallic and dielectric targets. *Plasma Sources Science and Technology*, **2019**, 28, 095006	3.5	23
146	Non-oxidative methane conversion in diffuse, filamentary, and spark regimes of nanosecond repetitively pulsed discharge with negative polarity. *Plasma Processes and Polymers*, **2019**, 16, 1900050	3.4	22
145	Inorganic nanofilms for surface charge control on polymer surfaces by atmospheric-pressure plasma deposition. *Journal of Applied Physics*, **2017**, 122, 233302	2.5	22
144	Repetitive Nanosecond-Pulse Breakdown in Tip–Plane Gaps of Air. *IEEE Transactions on Plasma Science*, **2006**, 34, 1620-1625	1.3	22
143	Time-resolved characteristics and chemical kinetics of non-oxidative methane conversion in repetitively pulsed dielectric barrier discharge plasmas. *Journal Physics D: Applied Physics*, **2018**, 51, 274005	3	22
142	Discharge characteristic of nanosecond-pulse DBD in atmospheric air using magnetic compression pulsed power generator. *Vacuum*, **2012**, 86, 876-880	3.7	21
141	Study on Surface Properties of Polyamide 66 Using Atmospheric Glow-Like Discharge Plasma Treatment. *Coatings*, **2017**, 7, 123	2.9	21
140	Electrical Characteristics in Surface Dielectric Barrier Discharge Driven by Microsecond Pulses. *IEEE Transactions on Plasma Science*, **2016**, 44, 2772-2778	1.3	20
139	Generation of super-short avalanche electron beams in SF6. *Laser and Particle Beams*, **2014**, 32, 331-341	0.9	20

138	Detection of x-ray emission in a nanosecond discharge in air at atmospheric pressure. *Review of Scientific Instruments*, **2010**, 81, 123501	1.7	20
137	Repetitive nanosecond-pulse dielectric barrier discharge and its application on surface modification of polymers. *Surface and Coatings Technology*, **2013**, 228, S578-S582	4.4	19
136	A comparison between characteristics of atmospheric-pressure plasma jets sustained by nanosecond- and microsecond-pulse generators in helium. *Physics of Plasmas*, **2014**, 21, 103505	2.1	19
135	Coupling bimetallic Ni-Fe catalysts and nanosecond pulsed plasma for synergistic low-temperature CO2 methanation. *Chemical Engineering Journal*, **2021**, 420, 127693	14.7	19
134	Nano-BN encapsulated micro-AlN as fillers for epoxy composites with high thermal conductivity and sufficient dielectric breakdown strength. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2020**, 27, 528-534	2.3	18
133	Characteristics of microsecond-pulse surface flashover on epoxy resin surfaces in SF6. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2016**, 23, 2328-2336	2.3	18
132	Aging Characteristics on Epoxy Resin Surface Under Repetitive Microsecond Pulses in Air at Atmospheric Pressure. *Plasma Science and Technology*, **2016**, 18, 325-330	1.5	18
131	Spots on electrodes and images of a gap during pulsed discharges in an inhomogeneous electric field at elevated pressures of air, nitrogen and argon. *Plasma Sources Science and Technology*, **2014**, 23, 054018	3.5	18
130	Review on atmospheric pressure pulsed DC discharge. *Scientia Sinica: Physica, Mechanica Et Astronomica*, **2011**, 41, 801-815	1.5	18
129	A Compact Microsecond-Pulse Generator Used for Surface Dielectric Barrier Discharges. *IEEE Transactions on Plasma Science*, **2016**, 44, 2072-2078	1.3	18
128	Thin insulating film deposition on copper by atmospheric-pressure plasmas. *Plasma Processes and Polymers*, **2017**, 14, 1600248	3.4	17
127	Temporal and spatial profiles of emission intensities in atmospheric pressure helium plasma jet driven by microsecond pulse: Experiment and simulation. *Journal of Applied Physics*, **2015**, 118, 123303	2.5	17
126	Nanosecond Repetitively Pulsed Discharge of Point–Plane Gaps in Air at Atmospheric Pressure. *IEEE Transactions on Plasma Science*, **2011**, 39, 1881-1888	1.3	17
125	Atmospheric-Pressure Plasma Jet Produced by a Unipolar Nanosecond Pulse Generator in Various Gases. *IEEE Transactions on Plasma Science*, **2011**, 39, 2322-2323	1.3	17
124	Removal of Pharmaceutical Residues from Water and Wastewater Using Dielectric Barrier Discharge Methods-A Review. *International Journal of Environmental Research and Public Health*, **2021**, 18,	4.6	17
123	Deposition of SiOx film on electrode surface by DBD to improve the lift-off voltage of metal particles. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2018**, 25, 1285-1292	2.3	16
122	Study of flow fields induced by surface dielectric barrier discharge actuator in low-pressure air. *Physics of Plasmas*, **2014**, 21, 043508	2.1	16
121	Aging characteristics of epoxy resin discharged by very fast transient overvoltage in SF6. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 1178-1188	2.3	16

120	Spatial‐temporal Evolution of a Radial Plasma Jet Array and Its Interaction with Material. *Plasma Chemistry and Plasma Processing*, **2019**, 39, 187-203	3.6	16
119	Plasma surface treatment of Cu by nanosecond-pulse diffuse discharges in atmospheric air. *Plasma Science and Technology*, **2018**, 20, 014011	1.5	16
118	Influence of Oxygen Content on Argon/Oxygen Dielectric Barrier Discharge Plasma Treatment of Polyethylene Terephthalate Film. *IEEE Transactions on Plasma Science*, **2017**, 45, 310-317	1.3	15
117	Atmospheric-pressure plasma jet deposition of bumpy coating improves polypropylene surface flashover performance in vacuum. *Surface and Coatings Technology*, **2020**, 387, 125511	4.4	15
116	Generation of Atmospheric Pressure Plasma by Repetitive Nanosecond Pulses in Air Using Water Electrodes. *Plasma Science and Technology*, **2011**, 13, 735-739	1.5	15
115	Effect of surface modification of electrodes on charge injection and dielectric characteristics of propylene carbonate. *High Voltage*, **2020**, 5, 15-23	4.1	15
114	Ionization waves in nanosecond pulsed atmospheric pressure plasma jets in argon. *High Voltage*, **2021**, 6, 665-673	4.1	15
113	Efficient Nitrogen Fixation to Ammonia through Integration of Plasma Oxidation with Electrocatalytic Reduction. *Angewandte Chemie*, **2021**, 133, 14250-14256	3.6	15
112	Improvement of Spatial Uniformity of Nanosecond-Pulse Diffuse Discharges in a Multi-Needle-to-Plane Gap. *Plasma Science and Technology*, **2016**, 18, 230-235	1.5	15
111	Discharge processes and an electrical model of atmospheric pressure plasma jets in argon. *European Physical Journal D*, **2016**, 70, 1	1.3	14
110	The dynamics of discharge propagation and x-ray generation in nanosecond pulsed fast ionisation wave in 5 mbar nitrogen. *Plasma Sources Science and Technology*, **2019**, 28, 095001	3.5	14
109	Electrical and optical characteristics of surface plasma actuator based on a three-electrode geometry excited by nanosecond-pulse and DC sources. *Physics of Plasmas*, **2017**, 24, 123503	2.1	14
108	Effect of dielectric and conductive targets on plasma jet behaviour and thin film properties. *Journal Physics D: Applied Physics*, **2019**, 52, 074002	3	14
107	Effects of nanosecond pulse voltage parameters on characteristics of surface charge for epoxy resin. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2018**, 25, 2058-2066	2.3	14
106	Interaction of argon and helium plasma jets and jets arrays with account for gravity. *Physics of Plasmas*, **2018**, 25, 063507	2.1	13
105	Surface charge decay of epoxy resin treated by AP-DBD deposition and direct fluorination. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2019**, 26, 768-775	2.3	13
104	Abnormal polarity effect in nanosecond-pulse breakdown of SF6 and nitrogen. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2014**, 378, 1828-1833	2.3	13
103	X-ray emission from a nanosecond-pulse discharge in an inhomogeneous electric field at atmospheric pressure. *Physics of Plasmas*, **2012**, 19, 123516	2.1	13

102	Diffuse and Filamentary Discharges in Open Air Driven by Repetitive High-Voltage Nanosecond Pulses. *IEEE Transactions on Plasma Science*, **2011**, 39, 2208-2209	1.3	13
101	Supershort avalanche electron beam in SF6 and krypton. *Physical Review Accelerators and Beams*, **2016**, 19,	1.8	13
100	Aging characteristics of polymeric materials by repeated surface flashovers in vacuum under microsecond pulse. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2019**, 26, 171-178	2.3	12
99	Nanosecond Repetitively Pulsed Dielectric Barrier Discharge in Air at Atmospheric Pressure. *Plasma Science and Technology*, **2011**, 13, 591-595	1.5	12
98	Bent paths of a positive streamer and a cathode-directed spark leader in diffuse discharges preionized by runaway electrons. *Physics of Plasmas*, **2015**, 22, 033511	2.1	11
97	X-ray and runaway electron generation in repetitive pulsed discharges in atmospheric pressure air with a point-to-plane gap. *Physics of Plasmas*, **2011**, 18, 053502	2.1	11
96	ICCD Observation of Homogeneous DBD Excitated by Unipolar Nanosecond Pulses in Open Air. *IEEE Transactions on Plasma Science*, **2011**, 39, 2062-2063	1.3	11
95	Trap distribution of polymeric materials and its effect on surface flashover in vacuum. *Plasma Science and Technology*, **2020**, 22, 044002	1.5	11
94	Effect of cathode and anode materials on the high-energy electron beam in the nanosecond-pulse breakdown in gas-filled diodes. *Journal Physics D: Applied Physics*, **2019**, 52, 275202	3	10
93	Generation of Runaway Electrons and X-rays in Repetitive Nanosecond Pulse Corona Discharge in Atmospheric Pressure Air. *Applied Physics Express*, **2011**, 4, 066001	2.4	10
92	Simulation of runaway electron inception and breakdown in nanosecond pulse gas discharges. *Laser and Particle Beams*, **2016**, 34, 43-52	0.9	10
91	Influences of oxygen content on characteristics of atmospheric pressure dielectric barrier discharge in argon/oxygen mixtures. *European Physical Journal D*, **2016**, 70, 1	1.3	10
90	A critical review on ozone and co-species, generation and reaction mechanisms in plasma induced by dielectric barrier discharge technologies for wastewater remediation. *Journal of Environmental Chemical Engineering*, **2021**, 9, 105758	6.8	10
89	Influence of electrode spacing and gas pressure on parameters of a runaway electron beam generating during the nanosecond breakdown in SF6 and nitrogen. *High Voltage*, **2017**, 2, 49-55	4.1	9
88	A comparison between spectra of runaway electron beams in SF6 and air. *Physics of Plasmas*, **2015**, 22, 123516	2.1	9
87	Enhanced surface insulating performance for polystyrene by atmospheric pressure plasma jet deposition. *Applied Surface Science*, **2020**, 527, 146826	6.7	9
86	Nanosecond pulsed uniform dielectric barrier discharge in atmospheric air: A brief spectroscopic analysis. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2019**, 207, 294-300	4.4	9
85	Phase-Resolved Measurement of Atmospheric-Pressure Radio-Frequency Pulsed Discharges in Ar/CH4/CO2 Mixture. *Plasma Chemistry and Plasma Processing*, **2020**, 40, 937-953	3.6	8

84	Two Typical Charge Transportation Characteristics in Nanosecond-Pulse Surface Dielectric Barrier Discharge. *IEEE Transactions on Plasma Science*, **2018**, 46, 3524-3530	1.3	8
83	The Effect of Accumulated Charges and Fluid Dynamics on the Helium Plasma Jet Array Behavior. *IEEE Transactions on Plasma Science*, **2019**, 47, 4861-4867	1.3	8
82	Factors influencing the discharge mode for microsecond-pulse gliding discharges at atmospheric pressure. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 2148-2156	2.3	8
81	The influences of the electrode dimension and the dielectric material on the breakdown characteristics of coplanar dielectric barrier discharge in ambient air. *Plasma Processes and Polymers* , **2017**, 14, 1700112	3.4	8
80	A pulsed generator for synchronous discharges of high-energy plasma synthetic jet actuators. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 2076-2084	2.3	8
79	Surface morphology and flashover performance of epoxy resin in SF6 after discharge aging. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 3395-3404	2.3	8
78	Generation of Homogeneous Atmospheric-Pressure Dielectric Barrier Discharge in a Large-Gap Argon Gas. *IEEE Transactions on Plasma Science*, **2012**, 40, 1884-1890	1.3	8
77	Simulations on Elastoplasticity of the Monolithic Aluminum Armature Under the Contact Force. *IEEE Transactions on Plasma Science*, **2011**, 39, 426-430	1.3	8
76	Experimental Study of Similarity Laws in Gas Breakdown with Repetitive Nanosecond Pulses. *Japanese Journal of Applied Physics*, **2007**, 46, 803-805	1.4	8
75	Charge transfer in plasma assisted dry reforming of methane using a nanosecond pulsed packed-bed reactor discharge. *Plasma Science and Technology*, **2021**, 23, 064007	1.5	8
74	Nanosecond-pulsed microbubble plasma reactor for plasma-activated water generation and bacterial inactivation. *Plasma Processes and Polymers*,	3.4	8
73	The effects of the tube diameter on the discharge ignition and the plasma properties of atmospheric-pressure microplasma confined inside capillary. *Plasma Processes and Polymers*, **2019**, 16, 1800176	3.4	7
72	Effect of rise time on nanosecond pulsed surface dielectric barrier discharge actuator. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2019**, 26, 346-352	2.3	7
71	Effects of TiO2 nanoparticles and electrodes surface-modified by low-temperature plasma on impulse breakdown voltage of propylene carbonate. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2020**, 27, 442-449	2.3	7
70	Experimental Study on Sound Characteristics Produced by DC Corona and Pulsed Discharges. *IEEE Transactions on Plasma Science*, **2016**, 44, 2196-2203	1.3	7
69	Pulse Repetition Frequency Effect on Nanosecond-Pulse Diffuse Discharge in Atmospheric-Pressure Air With a Point-to-Plane Gap. *IEEE Transactions on Plasma Science*, **2011**, 39, 2070-2071	1.3	7
68	Poly(vinylidene fluoride)/Plasma-Treated BaTiO3 Nanocomposites with Enhanced Electroactive Phase. *Macromolecular Research*, **2018**, 26, 965-972	1.9	7
67	X-ray radiation and runaway electron beams generated during discharges in atmospheric-pressure air at rise times of voltage pulse of 500 and 50 ns. *Laser and Particle Beams*, **2018**, 36, 186-194	0.9	7

66	Temperature-independent, nonoxidative methane conversion in nanosecond repetitively pulsed DBD plasma. *Sustainable Energy and Fuels*, **2021**, 5, 787-800	5.8	7
65	Two-Phase-Interfaced, Graded-Permittivity Titania Electrical Insulation by Atmospheric Pressure Plasmas.. *ACS Applied Materials & Interfaces*, **2021**,	9.5	7
64	Improvement of β-phase crystal formation in a BaTiO3-modified PVDF membrane. *Plasma Science and Technology*, **2018**, 20, 065510	1.5	6
63	Focused Plasma- and Pure Water-Enabled, Electrode-Emerged Nanointerfaced NiCo Hydroxide-Oxide for Robust Overall Water Splitting. *ACS Applied Materials & Interfaces*, **2021**, 13, 45566-45577	9.5	6
62	Propagation of Ionization Waves in Nanosecond-Pulse Dielectric Barrier Discharge in Atmospheric Air. *IEEE Transactions on Plasma Science*, **2018**, 46, 1943-1950	1.3	5
61	Comparison of $mu $ s- and ns-Pulse Gliding Discharges in Air Flow. *IEEE Transactions on Plasma Science*, **2014**, 42, 2354-2355	1.3	5
60	Diffuse Discharges in Open Air Sustained by Microsecond and Nanosecond Pulses. *IEEE Transactions on Plasma Science*, **2014**, 42, 2408-2409	1.3	5
59	Review of supershort avalanche electron beam during nanosecond-pulse discharges in some gases. *Matter and Radiation at Extremes*, **2017**, 2, 105-116	4.7	5
58	Deposition of SiO2 and TiO2 Films on Electrode Materials to Suppress Space Charge Injection. *IEEE Transactions on Plasma Science*, **2020**, 48, 3895-3904	1.3	5
57	Temporal evolution of electron energy distribution function and its correlation with hydrogen radical generation in atmospheric-pressure methane needle–plane discharge plasmas. *Journal Physics D: Applied Physics*, **2021**, 54, 095202	3	5
56	Low-temperature plasma polymerized fluorocarbon coating promotes surface charge dissipation in polystyrene. *Nanotechnology*, **2021**, 32, 125703	3.4	5
55	Modification of copper surface by runaway electrons preionized diffuse discharges at atmospheric pressure. *Laser and Particle Beams*, **2016**, 34, 202-209	0.9	5
54	A Nanosecond Pulsed Generator With Fast-Solid-State Switch for Synchronous Discharge in Plasma Synthetic Jet Actuators. *IEEE Transactions on Plasma Science*, **2019**, 47, 1901-1908	1.3	5
53	Depositing chromium oxide film on alumina ceramics enhances the surface flashover performance in vacuum via PECVD. *Surface and Coatings Technology*, **2021**, 405, 126509	4.4	5
52	Nano-sized composite improving the insulating performance of insulating paper using low-temperature plasmas. *Nanotechnology*, **2021**, 32, 185704	3.4	5
51	Plasma jet printing for preparation of N-doped graphene electrode. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 8944-8954	2.1	4
50	Surface modification of polymers by a nanosecond-pulse plasma jet **2012**,		4
49	Experimental study on the treatment of oil-based drill cutting by pulsed dielectric barrier discharge plasma at atmospheric pressure. *Journal of Cleaner Production*, **2022**, 339, 130757	10.3	4

48	Compositional and crystallographic design of Ni-Co phosphide heterointerfaced nanowires for high-rate, stable hydrogen generation at industry-relevant electrolysis current densities. *Nano Energy*, **2022**, 95, 106989	17.1	4
47	Nanosecond-pulse diffuse discharges at atmospheric pressure. *Chinese Science Bulletin*, **2014**, 59, 1919-1926	2.3	4
46	Reconstruction of energy spectrum of runaway electrons in nanosecond-pulse discharges in atmospheric air. *Plasma Science and Technology*, **2021**, 23, 064011	1.5	4
45	Strategies of Power Measurement and Energy Coupling Enhancement in Nanosecond Pulsed Coaxial Dielectric Barrier Discharges. *IEEE Transactions on Plasma Science*, **2021**, 49, 1605-1613	1.3	4
44	Revealing the active sites of the structured Ni-based catalysts for one-step CO2/CH4 conversion into oxygenates by plasma-catalysis. *Journal of CO2 Utilization*, **2021**, 52, 101675	7.6	4
43	Self-heating effect on stability of a nanosecond pulsed DBD interacting with heptane and methylnaphthalene as heavy oil model compounds. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2019**, 26, 431-438	2.3	3
42	About the possible source of seed electrons initiating the very first breakdown in a DBD operating with the air at atmospheric pressure. *Plasma Sources Science and Technology*, **2021**, 30, 025008	3.5	3
41	Numerical modeling and mechanism investigation on nanosecond pulsed DBD plasma-catalytic CH4 dry reforming. *Journal Physics D: Applied Physics*,	3	3
40	Characteristics of N2/O2 reaction in spark gap switch: The effect of high-current pulsed arc. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2019**, 26, 492-500	2.3	2
39	Measurement of optical spectrum and mass spectrum in vacuum surface flashover for polymeric materials. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2019**, 26, 593-600	2.3	2
38	Optical and illuminant characteristics of microsecond-pulse diffuse discharges in a point-to-point gap **2016**,		2
37	Coaxial Diffuse Discharges Driven by Repetitive Nanosecond Pulses at Different Air Pressures. *IEEE Transactions on Plasma Science*, **2014**, 42, 2378-2379	1.3	2
36	Anode and Cathode Spots in High-Voltage Nanosecond-Pulse Discharge Initiated by Runaway Electrons in Air. *Chinese Physics Letters*, **2014**, 31, 085201	1.8	2
35	A repetitive microsecond-pulse generator for plasma application **2012**,		2
34	Effect of grounded electrode's width on electrical characteristics of nanosecond-pulse surface DBD **2013**,		2
33	A compact, high repetition-rate, nanosecond pulse generator based on magnetic pulse compression **2010**,		2
32	Linking trap to G10 surface flashover in liquid nitrogen under DC voltage. *Cryogenics*, **2022**, 122, 103423	1.8	2
31	Liquid-phase methane bubble plasma discharge for heavy oil processing: Insights into free radicals-induced hydrogenation. *Energy Conversion and Management*, **2021**, 250, 114896	10.6	2

30	In-package plasma: From reactive chemistry to innovative food preservation technologies. *Trends in Food Science and Technology*, **2022**, 120, 59-74	15.3	2
29	Facile synthesis of nitrogen-doped and boron-doped reduced graphene oxide using radio-frequency plasma for supercapacitors. *Journal Physics D: Applied Physics*, **2021**, 54, 265501	3	2
28	Polymer Dielectrics: A Scalable, High-Throughput, and Environmentally Benign Approach to Polymer Dielectrics Exhibiting Significantly Improved Capacitive Performance at High Temperatures (Adv. Mater. 49/2018). *Advanced Materials*, **2018**, 30, 1870378	24	2
27	Measurement of runaway electron beam current in nanosecond-pulse discharges by a Faraday cup. *Laser and Particle Beams*, **2018**, 36, 369-375	0.9	2
26	Liquefied Natural Gas for Superconducting Energy Pipelines: A Feasibility Study on Electrical Insulation. *Energy & Fuels*, **2021**, 35, 13930-13936	4.1	2
25	Surface charge decay of epoxy resin treated by AP-DBD deposition and direct fluorination. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2019**, 26, 768-775	2.3	1
24	Surface modification of LDPE film by nanosecond-pulse dielectric barrier discharge at atmospheric pressure **2015**,		1
23	Effect of Dielectric Barrier Discharge (DBD) Treatment on the Dielectric Properties of Poly(vinylidene fluoride)(PVDF)-Based Copolymer. *Polymers*, **2020**, 12,	4.5	1
22	A microsecond generator based on pulse transformer and its discharge applications **2014**,		1
21	Surface flashover of atmospheric-pressure plasma treated PMMA in transformer oil **2014**,		1
20	Study on Q-V Lissajous figures in nanosecond-pulsed surface discharge **2012**,		1
19	**2012**,		1
18	Study on surface flashover and gas desorption of solid insulation materials in vacuum **2012**,		1
17	**2013**,		1
16	Differential permeability of ferrite cores at high magnetization rates **2010**,		1
15	Repetitive nanosecond-pulse discharge in tip-grid gaps in atmospheric air **2010**,		1
14	COx-free co-cracking of n-decane and CH4 to hydrogen and acetylene using pulsed spark plasma. *Chemical Engineering Journal*, **2022**, 436, 135190	14.7	1
13	Optical emission spectroscopy measurement of plasma parameters in a nanosecond pulsed spark discharge for CO/CH dry reforming. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2021**, 267, 120590	4.4	1

12	Numerical investigation on the heterogeneous pulsed dielectric barrier discharge plasma catalysis for CO2 hydrogenation at atmospheric pressure: Effects of Ni and Cu catalysts on the selectivity conversions to CH4 and CH3OH. *Plasma Processes and Polymers*,e2100111	3.4	1
11	Influence of segmented grounding electrodes on electrical characteristics in annular surface dielectric barrier discharge. *Journal Physics D: Applied Physics*, **2021**, 54, 265203	3	1
10	Numerical verification of the two-spike-current behavior in the initial stage of plasma formation in a pulsed surface dielectric barrier discharge. *Journal Physics D: Applied Physics*, **2021**, 54, 345201	3	1
9	Preparation and Properties of Polystyrene Deposited with TiN Film Using Atmospheric-Pressure Plasma Jet **2019**,		1
8	Reaction mechanism in non-thermal plasma enabled methane conversion: correlation between optical emission spectroscopy and gaseous products. *Journal Physics D: Applied Physics*, **2021**, 54, 424002	3	1
7	Effect of Reactive Chemical Species on the Degradation of Deoxynivalenol, 3-Acetyldeoxynivalenol, and 15-Acetyldeoxynivalenol in Low-Temperature Plasmas. *ACS Food Science & Technology*, **2022**, 2, 558-567		1
6	Degradation of Sulfamethoxazole by Double Cylindrical Dielectric Barrier Discharge System combined with Ti /C-N-TiO2 supported Nanocatalyst. *Journal of Hazardous Materials Advances*, **2022** , 5, 100051		0
5	Guest Editorial Special Issue for Plenary, Invited, and Selected Papers From the 2018 Asia-Pacific Conference on Plasma and Terahertz Science. *IEEE Transactions on Plasma Science*, **2019**, 47, 1885-1886	1.3	
4	Guest Editorial Special Issue on Atmospheric Pressure Plasmas and Their Applications. *IEEE Transactions on Plasma Science*, **2016**, 44, 2527-2527	1.3	
3	Plasma Surface Treatment of Al2O3-Filled Epoxy Resin for Accelerating Surface Charge Dissipation **2021**, 499-523		
2	Guest Editorial Special Issue on Plenary and Invited Papers From ICOPS-BEAMS 2015. *IEEE Transactions on Plasma Science*, **2016**, 44, 345-346	1.3	
1	Breakdown and Flashover Properties of Cryogenic Liquid Fuel for Superconducting Energy Pipeline. *IEEE Transactions on Applied Superconductivity*, **2022**, 32, 1-7	1.8	