

Ai-Jun Yang

List of Publications by Year in descending order

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papers

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citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Method for Magnetic Energy Harvesting Based on Capacitive Energy Storage and Core Saturation Modulation. IEEE Transactions on Industrial Electronics, 2023, 70, 2586-2595.	7.9	5
2	Fault Diagnosis of SF ₆ -Insulated Equipment by Micro Gas Sensor Array. IEEE Transactions on Power Delivery, 2023, 38, 222-230.	4.3	23
3	Detection of decomposition products of SF ₆ /air gas mixture by electron attachment mass spectrometry. High Voltage, 2022, 7, 536-544.	4.7	4
4	Overheat diagnosis of power cable based on gas sensors: Device/material exploration. Sensors and Actuators B: Chemical, 2022, 350, 130837.	7.8	3
5	Virtual Alternating Current Measurements Advance Semiconductor Gas Sensors' Performance in the Internet of Things. IEEE Internet of Things Journal, 2022, 9, 5502-5510.	8.7	10
6	Capacitive Readout System for Micro Sensors and Actuators With Automatic Parasitic Cancellation. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	1
7	A High-Impedance Fault Detection Method for Distribution Systems Based on Empirical Wavelet Transform and Differential Faulty Energy. IEEE Transactions on Smart Grid, 2022, 13, 900-912.	9.0	53
8	Lightweight Neural Network for Gas Identification Based on Semiconductor Sensor. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	4.7	6
9	Study on spark discharge enhanced laser-induced breakdown spectroscopy of Fe particles in transformer oil. Journal of Analytical Atomic Spectrometry, 2022, 37, 381-389.	3.0	1
10	Low-Frequency Wireless Power Transfer Via Rotating Permanent Magnets. IEEE Transactions on Industrial Electronics, 2022, 69, 10656-10665.	7.9	11
11	1D fluid model of the interaction between helium APPJ and deionized water. Journal Physics D: Applied Physics, 2022, 55, 255204.	2.8	0
12	Decomposition Products and Mechanism of C ₅ F ₁₀ O/N ₂ Gas Mixture by Electron Attachment Mass Spectrometry. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 1127-1134.	2.9	2
13	Study on the Insulation Performance and Decomposition Characteristics of C ₅ F ₁₀ O/CO ₂ Gas Mixture. Plasma Chemistry and Plasma Processing, 2022, 42, 957-971.	2.4	4
14	Electromagnetic Vibrational Energy Harvester With Microfabricated Springs and Flexible Coils. IEEE Transactions on Industrial Electronics, 2021, 68, 2684-2693.	7.9	23
15	Identification of gas mixtures via sensor array combining with neural networks. Sensors and Actuators B: Chemical, 2021, 329, 129090.	7.8	106
16	Multicomponent SF ₆ decomposition product sensing with a gas-sensing microchip. Microsystems and Nanoengineering, 2021, 7, 18.	7.0	6
17	Effects of H ₂ O and O ₂ Impurities on the Trichel Pulses Characteristics of the Negative Point-Plane Corona Discharge in SF ₆ . Plasma Chemistry and Plasma Processing, 2021, 41, 1101.	2.4	2
18	Experimental Studies on Insulation and Arc Extinguishing Performance of C ₅ F ₁₀ O/CO ₂ Gas Mixture., , .		1

#	ARTICLE	IF	CITATIONS
19	Hybrid piezo/triboelectric nanogenerator for stray magnetic energy harvesting and self-powered sensing applications. <i>High Voltage</i> , 2021, 6, 978-985.	4.7	12
20	A Microtester for Measuring the Reliability of Microdevices in Controlled Environmental Conditions. <i>Micromachines</i> , 2021, 12, 585.	2.9	3
21	Simplification of plasma chemistry by means of vital nodes identification. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	2
22	Alloying of Alkali Metals with Tellurene. <i>Advanced Energy Materials</i> , 2021, 11, 2003248.	19.5	11
23	Detection and analysis of spark discharge products of $C_{50}F_{10}O$ by electron attachment mass spectrometry. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 045201.	2.8	7
24	Single ultrathin WO_3 nanowire as a superior gas sensor for SO_2 and H_2S : Selective adsorption and distinct I-V response. <i>Materials Chemistry and Physics</i> , 2020, 240, 122165.	4.0	55
25	Theoretical study on decomposition pathways and reaction rate constants of C_4F_7N with O atom. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 105202.	2.8	13
26	Short period sinusoidal thermal modulation for quantitative identification of gas species. <i>Nanoscale</i> , 2020, 12, 220-229.	5.6	30
27	Enhanced sensing of sulfur hexafluoride decomposition components based on noble-metal-functionalized cerium oxide. <i>Materials and Design</i> , 2020, 187, 108391.	7.0	16
28	The Decomposition Pathways of SF_6 in the Presence of Organic Insulator Vapors. <i>Plasma Chemistry and Plasma Processing</i> , 2020, 40, 449-467.	2.4	9
29	A Deep Learning Method to Detect Foreign Objects for Inspecting Power Transmission Lines. <i>IEEE Access</i> , 2020, 8, 94065-94075.	4.2	21
30	Numerical simulation of the Trichel pulse characteristics in SF_6/N_2 gas mixtures. <i>Physics of Plasmas</i> , 2020, 27, 113508.	1.9	8
31	Tunable SO_2 -sensing performance of arsenene induced by Stone-Wales defects and external electric field. <i>Applied Surface Science</i> , 2020, 523, 146403.	6.1	29
32	Antimonene: A Promising Candidate for SF_6 Decomposition Gas Sensors With High Sensitivity and High Stability. <i>IEEE Electron Device Letters</i> , 2020, 41, 1408-1411.	3.9	20
33	Janus $MoSSe$ monolayer: A highly strain-sensitive gas sensing material to detect SF_6 decompositions. <i>Sensors and Actuators A: Physical</i> , 2020, 311, 112049.	4.1	35
34	Copper particle contamination detection of oil-immersed transformer using laser-induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2020, 167, 105820.	2.9	9
35	Multivariate Evaluation Method for Screening Optimum Gas-Sensitive Materials for Detecting SF_6 Decomposition Products. <i>ACS Sensors</i> , 2020, 5, 2025-2035.	7.8	8
36	Tellurene Nanoflake-Based Gas Sensors for the Detection of Decomposition Products of SF_6 . <i>ACS Applied Nano Materials</i> , 2020, 3, 7587-7594.	5.0	13

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37	Hydrophobic Ionic Liquid Gel-Based Triboelectric Nanogenerator: Next Generation of Ultrastable, Flexible, and Transparent Power Sources for Sustainable Electronics. ACS Applied Materials & Interfaces, 2020, 12, 15012-15022.	8.0	45
38	1D fluid model of RF-excited cold atmospheric plasmas in helium with air gas impurities. Physics of Plasmas, 2020, 27, .	1.9	10
39	Tunable adsorption behavior of small molecule on GeP monolayer by applied strain and electric field. Applied Surface Science, 2020, 520, 146257.	6.1	15
40	SF ₆ Decomposition Gas Sensor Based on GeP Monolayer: A First-Principle Study. IEEE Sensors Journal, 2020, 20, 8997-9003.	4.7	17
41	Partial Discharge Source Localization in GIS Based on Image Edge Detection and Support Vector Machine. IEEE Transactions on Power Delivery, 2019, 34, 1795-1802.	4.3	38
42	The effect of pH on the aqueous reactive species in sodium phosphate buffers induced by surface air discharge. Journal Physics D: Applied Physics, 2019, 52, 415201.	2.8	10
43	DFT+U study of sulfur hexafluoride decomposition components adsorbed on ceria (110) surface. Sensors and Actuators A: Physical, 2019, 298, 111590.	4.1	9
44	Chemisorption of NO ₂ to MoS ₂ Nanostructures and its Effects for MoS ₂ Sensors. ChemNanoMat, 2019, 5, 1123-1130.	2.8	41
45	Reactive species in cold atmospheric-pressure He+Air plasmas: The influence of humidity. Physics of Plasmas, 2019, 26, .	1.9	11
46	Influence of H ₂ O and O ₂ on the main discharge mechanism in 50% Hz ac point-plane corona discharge. Physics of Plasmas, 2019, 26, .	1.9	14
47	Theoretical study of the decomposition mechanism of C ₄ F ₇ N. Journal Physics D: Applied Physics, 2019, 52, 245203.	2.8	27
48	Fabrication of polypyrrole/graphene oxide hybrid nanocomposite for ultrasensitive humidity sensing with unprecedented sensitivity. Journal of Materials Science: Materials in Electronics, 2019, 30, 4967-4976.	2.2	16
49	The varying characteristics of C ₅ F ₁₀ O decomposition components at 300 K - 3500 K with a chemical kinetic model. AIP Advances, 2019, 9, .	1.3	12
50	Tellurene based chemical sensor. Journal of Materials Chemistry A, 2019, 7, 26326-26333.	10.3	95
51	The decomposition mechanism of C ₄ F ₇ N-Cu gas mixtures. AIP Advances, 2019, 9, .	1.3	5
52	A miniaturized electromagnetic energy harvester with off-axis magnet and stacked flexible coils. , 2019, , .		2
53	Global model of cold atmospheric He + air plasmas: A comparison of Maxwellian and non-Maxwellian EEDFs. Physics of Plasmas, 2019, 26, .	1.9	4
54	Global model of an atmospheric-pressure capacitive discharge in helium with air impurities from 100 to 10 000 ppm. Plasma Sources Science and Technology, 2019, 28, 035006.	3.1	26

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55	Rate constants of $C_5F_{10}O$ decomposition reactions at temperatures of 300–3500 K. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 035202.	2.8	27
56	Highly selective detection of sulfur hexafluoride decomposition components H_2S and SOF_2 employing sensors based on tin oxide modified reduced graphene oxide. <i>Carbon</i> , 2018, 135, 95-103.	10.3	88
57	Recent advances in phosphorene as a sensing material. <i>Nano Today</i> , 2018, 20, 13-32.	11.9	134
58	A first principles theoretical study of the adsorption of SF_6 decomposition gases on a cassiterite (110) surface. <i>Materials Chemistry and Physics</i> , 2018, 212, 453-460.	4.0	27
59	Hierarchical assembly of urchin-like alpha-iron oxide hollow microspheres and molybdenum disulphide nanosheets for ethanol gas sensing. <i>Journal of Colloid and Interface Science</i> , 2018, 523, 217-225.	9.4	39
60	$MoTe_2$: A Promising Candidate for SF_6 Decomposition Gas Sensors With High Sensitivity and Selectivity. <i>IEEE Electron Device Letters</i> , 2018, 39, 292-295.	3.9	74
61	Effects of adatom and gas molecule adsorption on the physical properties of tellurene: a first principles investigation. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 4058-4066.	2.8	87
62	Post-discharge evolution of reactive species in the water activated by a surface air plasma: a modeling study. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 175202.	2.8	15
63	Time-frequency analysis of PD-induced UHF signal in GIS and feature extraction using invariant moments. <i>IET Science, Measurement and Technology</i> , 2018, 12, 169-175.	1.6	28
64	Aqueous Reactive Oxygen Species Induced by $He+O_2$ Plasmas: Chemistry Pathways and Dosage Control Approaches. <i>Plasma Chemistry and Plasma Processing</i> , 2018, 38, 89-105.	2.4	22
65	Influence of H_2O on the decomposition products and discharge mechanism of ac point-plane corona discharge. , 2018, , .		0
66	Influence of Al, Fe or Cu vapour on thermophysical properties of CO_2 plasmas. <i>European Physical Journal D</i> , 2018, 72, 1.	1.3	3
67	Partial Discharge Recognition with a Multi-Resolution Convolutional Neural Network. <i>Sensors</i> , 2018, 18, 3512.	3.8	63
68	Compositions of $SF_6 - H_2O$ Decaying Arc at a Temperature Range of 1000–12000 K. , 2018, , .		0
69	Effects of oxygen concentration on helium-oxygen dielectric barrier discharges: From multi-breakdowns to single-breakdown per half-cycle. <i>Physics of Plasmas</i> , 2018, 25, 103511.	1.9	4
70	Numerical simulation of negative point-plane corona discharge mechanism in SF_6 gas. <i>Plasma Sources Science and Technology</i> , 2018, 27, 115001.	3.1	22
71	Combined Diffusion Coefficients in CO_2 Thermal Plasmas Contaminated with Cu, Fe or Al. <i>Plasma Chemistry and Plasma Processing</i> , 2018, 38, 1133-1149.	2.4	0
72	Numerical study on helium-oxygen dielectric barrier discharges: From single-breakdown to multi-breakdowns per half-cycle. <i>Physics of Plasmas</i> , 2018, 25, 073508.	1.9	6

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73	Theoretical study of the decomposition mechanism of SF ₆ /Cu gas mixtures. Journal Physics D: Applied Physics, 2018, 51, 425202.	2.8	8
74	Chemical kinetic modeling and experimental study of SF ₆ decomposition byproducts in 50 Hz ac point-plane corona discharges. Journal Physics D: Applied Physics, 2018, 51, 295202.	2.8	12
75	A high-integration sensor array sensitive to oxynitride mixture. Sensors and Actuators B: Chemical, 2017, 245, 183-188.	7.8	14
76	Phosphorene: A Promising Candidate for Highly Sensitive and Selective SF ₆ Decomposition Gas Sensors. IEEE Electron Device Letters, 2017, 38, 963-966.	3.9	132
77	Compositions, thermodynamic properties, and transport coefficients of high-temperature C ₅ F ₁₀ O mixed with CO ₂ and O ₂ as substitutes for SF ₆ to reduce global warming potential. AIP Advances, 2017, 7, .	1.3	61
78	Experiment of dielectric strength of C ₅ F ₁₀ O gas mixture and calculation of stratification. , 2017, , .		1
79	Insulation performance and liquefaction characteristic of C ₅ F ₁₀ O/CO ₂ gas mixture. , 2017, , .		4
80	Antimonene: A promising candidate for acetone sensors with high selectivity and sensitivity. , 2017, , .		5
81	Failure Prognosis of High Voltage Circuit Breakers with Temporal Latent Dirichlet Allocation. Energies, 2017, 10, 1913.	3.1	4
82	Calculation on the composition varying characteristics of decaying SF ₆ arc in the presence of trace oxygen and moisture. , 2017, , .		1
83	Study on the laser-induced plasma properties of vacuum interrupter shield under different pressure. , 2017, , .		0
84	Effects of N ₂ contents on the non-equilibrium composition in SF ₆ decaying process. , 2017, , .		1
85	Analysis of partial discharge in leading-out terminal on distribution switchgear. , 2016, , .		0
86	Aqueous reactive species induced by a surface air discharge: Heterogeneous mass transfer and liquid chemistry pathways. Scientific Reports, 2016, 6, 23737.	3.3	200
87	Theoretical study of the decomposition pathways and products of C ₅ -perfluorinated ketone (C ₅ PFK). AIP Advances, 2016, 6, .	1.3	50
88	Investigation on the formation reactions of SOF ₄ and SO ₂ F ₂ under electric discharges. , 2016, , .		1
89	Effects of DC bias voltages on the RF-excited plasma-tissue interaction. Journal Physics D: Applied Physics, 2016, 49, 415201.	2.8	3
90	A pilot study on the vacuum degree online detection of vacuum interrupter using laser-induced breakdown spectroscopy. Journal Physics D: Applied Physics, 2016, 49, 44LT01.	2.8	11

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91	Propagation characteristics of PD-induced UHF signal in 126 kV GIS with three-phase construction based on time-frequency analysis. IET Science, Measurement and Technology, 2016, 10, 805-812.	1.6	17
92	Electron heating and particle fluxes in dual frequency atmospheric-pressure helium capacitive discharge. Journal Physics D: Applied Physics, 2016, 49, 49LT01.	2.8	10
93	Theoretical study of the neutral decomposition of SF ₆ in the presence of H ₂ O and O ₂ in discharges in power equipment. Journal Physics D: Applied Physics, 2016, 49, 385203.	2.8	65
94	Humidity sensing using vertically oriented arrays of ReS ₂ nanosheets deposited on an interdigitated gold electrode. 2D Materials, 2016, 3, 045012.	4.4	42
95	Comparison between electropositive and electronegative cold atmospheric-pressure plasmas: a modelling study. High Voltage, 2016, 1, 81-85.	4.7	25
96	Determination of the Dominant Species and Reactions in Non-equilibrium CO ₂ Thermal Plasmas with a Two-Temperature Chemical Kinetic Model. Plasma Chemistry and Plasma Processing, 2016, 36, 1301-1323.	2.4	8
97	Thermodynamic Properties and Transport Coefficients of CO ₂ -Cu Thermal Plasmas. Plasma Chemistry and Plasma Processing, 2016, 36, 1141-1160.	2.4	12
98	Comparative study of titrated oral misoprostol solution and vaginal dinoprostone for labor induction at term pregnancy. Archives of Gynecology and Obstetrics, 2016, 294, 495-503.	1.7	17
99	Dominant particles and reactions in a two-temperature chemical kinetic model of a decaying SF ₆ arc. Journal Physics D: Applied Physics, 2016, 49, 105502.	2.8	30
100	Calculated rate constants of the chemical reactions involving the main byproducts SO ₂ F, SO ₂ , SO ₂ F ₂ of SF ₆ decomposition in power equipment. Journal Physics D: Applied Physics, 2016, 49, 155502.	2.8	82
101	The study of higher-order resonant and non-resonant boundary value problems. Electronic Journal of Qualitative Theory of Differential Equations, 2016, , 1-10.	0.5	1
102	Properties of a weakly ionized NO gas sensor based on multi-walled carbon nanotubes. Applied Physics Letters, 2015, 107, .	3.3	18
103	Propagation characteristics of atmospheric-pressure He+O ₂ plasmas inside a simulated endoscope channel. Journal of Applied Physics, 2015, 118, .	2.5	4
104	Investigation of dielectric properties of cold C ₃ F ₈ mixtures and hot C ₃ F ₈ gas as Substitutes for SF ₆ . European Physical Journal D, 2015, 69, 1.	1.3	17
105	Physicochemical processes in the indirect interaction between surface air plasma and deionized water. Journal Physics D: Applied Physics, 2015, 48, 495201.	2.8	160
106	Thermodynamic properties and transport coefficients of high-temperature CO ₂ thermal plasmas mixed with C ₂ F ₄ . Journal Physics D: Applied Physics, 2015, 48, 495202.	2.8	19
107	Dielectric breakdown properties of hot SF ₆ gas contaminated by copper at temperatures of 300-3500 K. Journal Physics D: Applied Physics, 2015, 48, 155205.	2.8	22
108	PTTG regulates the metabolic switch of ovarian cancer cells via the c-myc pathway. Oncotarget, 2015, 6, 40959-40969.	1.8	23

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109	Dielectric breakdown properties of hot SF ₆ -CO ₂ mixtures at temperatures of 300â€“3500â€“K and pressures of 0.01â€“1.0â€“MPa. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	51
110	Temporal modulation of plasma species in atmospheric dielectric barrier discharges. <i>Physics of Plasmas</i> , 2014, 21, 073507.	1.9	9
111	A Model of Plasma-Biofilm and Plasma-Tissue Interactions at Ambient Pressure. <i>Plasma Chemistry and Plasma Processing</i> , 2014, 34, 403-441.	2.4	158
112	A dominant role of oxygen additive on cold atmospheric-pressure He + O ₂ plasmas. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	26
113	Variable radio-frequency cold atmospheric He + O ₂ discharges: from electron-heating mechanism to reactive species delivery. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 415201.	2.8	15
114	Wall fluxes of reactive oxygen species of an rf atmospheric-pressure plasma and their dependence on sheath dynamics. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 305205.	2.8	27
115	Numerical Study on Atmospheric Pressure DBD in Helium: Single-breakdown and Multi-breakdown Discharges. <i>Plasma Science and Technology</i> , 2011, 13, 724-729.	1.5	10
116	1-D fluid model of atmospheric-pressure rf He+O ₂ cold plasmas: Parametric study and critical evaluation. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	64