

# Fuping Zeng

## List of Publications by Year in descending order

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74  
papers

1,118  
citations

394421

19  
h-index

454955

30  
g-index

74  
all docs

74  
docs citations

74  
times ranked

489  
citing authors

#	ARTICLE	IF	CITATIONS
1	Correlation analysis between formation process of SF <sub>6</sub> decomposed components and partial discharge qualities. IEEE Transactions on Dielectrics and Electrical Insulation, 2013, 20, 864-875.	2.9	127
2	Decomposition characteristics of SF <sub>6</sub> under thermal fault for temperatures below 400°C. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 995-1004.	2.9	77
3	SF <sub>6</sub> decomposition and insulation condition monitoring of GIE: A review. High Voltage, 2021, 6, 955-966.	4.7	52
4	Study on the influence mechanism of trace H <sub>2</sub> O on SF <sub>6</sub> thermal decomposition characteristic components. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 766-774.	2.9	46
5	SF <sub>6</sub> fault decomposition feature component extraction and triangle fault diagnosis method. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 581-589.	2.9	45
6	Triangle Fault Diagnosis Method for SF <sub>6</sub> Gas-Insulated Equipment. IEEE Transactions on Power Delivery, 2019, 34, 1470-1477.	4.3	40
7	Evaluating DC Partial Discharge With SF <sub>6</sub> Decomposition Characteristics. IEEE Transactions on Power Delivery, 2019, 34, 1383-1392.	4.3	39
8	Relationship between decomposition gas ratios and partial discharge energy in GIS, and the influence of residual water and oxygen. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 1226-1234.	2.9	37
9	First-principles analysis of Ti3C2Tx MXene as a promising candidate for SF6 decomposition characteristic components sensor. Applied Surface Science, 2022, 578, 152020.	6.1	37
10	Influence regularity of trace H <sub>2</sub> O on SF <sub>6</sub> decomposition characteristics under partial discharge of needle-plate electrode. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 287-295.	2.9	36
11	Assessment of PD severity in gas-insulated switchgear with an SSAE. IET Science, Measurement and Technology, 2017, 11, 423-430.	1.6	30
12	Feature extraction and severity assessment of partial discharge under protrusion defect based on fuzzy comprehensive evaluation. IET Generation, Transmission and Distribution, 2015, 9, 2493-2500.	2.5	28
13	Investigation of partial discharge between moving charged metal particles and electrodes in insulating oil under flow state and AC condition. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 1099-1105.	2.9	24
14	Isotope tracing experimental study on the effects of trace H <sub>2</sub> O on the over-thermal decomposition of SF <sub>6</sub> . Journal Physics D: Applied Physics, 2020, 53, 355501.	2.8	23
15	Feature extraction of SF <sub>6</sub> thermal decomposition characteristics to diagnose overheating fault. IET Science, Measurement and Technology, 2015, 9, 751-757.	1.6	21
16	Decomposition Characteristics of SF6 and Partial Discharge Recognition under Negative DC Conditions. Energies, 2017, 10, 556.	3.1	21
17	Over Thermal Decomposition Characteristics of C <sub>5</sub> F <sub>10</sub> O: An Environmental Friendly Insulation Medium. IEEE Access, 2019, 7, 62080-62086.	4.2	21
18	A semi-definite relaxation approach for partial discharge source location in transformers. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 1097-1103.	2.9	20

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19	Reconstructing and extracting information on SF <sub>6</sub> decomposition characteristic components induced by partial overthermal fault in GIE. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 183-193.	2.9	19
20	Using SF <sub>6</sub> Decomposed Component Analysis for the Diagnosis of Partial Discharge Severity Initiated by Free Metal Particle Defect. Energies, 2017, 10, 1119.	3.1	19
21	Fault Diagnosis and Condition Division Criterion of DC Gas Insulating Equipment Based on SF <sub>6</sub> Partial Discharge Decomposition Characteristics. IEEE Access, 2019, 7, 29869-29881.	4.2	19
22	Establishment of a Reax force field to study SF <sub>6</sub> gas over-thermal decomposition. Journal Physics D: Applied Physics, 2021, 54, 115501.	2.8	18
23	Influence Mechanisms of Trace H <sub>2</sub> O on the Generating Process of SF <sub>6</sub> Spark Discharge Decomposition Components. Plasma Chemistry and Plasma Processing, 2017, 37, 325-340.	2.4	17
24	Investigation on SF <sub>6</sub> spark decomposition characteristics under different pressures. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 2066-2075.	2.9	17
25	Correlation characteristics between SF <sub>6</sub> decomposition process and partial discharge quantity under negative DC condition initiated by free metal particle defect. IEEE Transactions on Dielectrics and Electrical Insulation, 2018, 25, 574-583.	2.9	17
26	Influence regularity of trace O <sub>2</sub> on SF <sub>6</sub> decomposition characteristics and its mathematical amendment under partial discharge. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 105-115.	2.9	16
27	Correlation analysis between SF <sub>6</sub> decomposed components and negative DC partial discharge strength initiated by needle-plate defect. IEEE Transactions on Electrical and Electronic Engineering, 2018, 13, 382-389.	1.4	15
28	Feature Selection for Partial Discharge Severity Assessment in Gas-Insulated Switchgear Based on Minimum Redundancy and Maximum Relevance. Energies, 2017, 10, 1516.	3.1	14
29	SF <sub>6</sub> positive DC partial discharge decomposition components under four typical insulation defects. IET Generation, Transmission and Distribution, 2019, 13, 1-8.	2.5	14
30	Correlation characteristics between gas pressure and SF <sub>6</sub> decomposition under negative DC partial discharge. IET Generation, Transmission and Distribution, 2018, 12, 1240-1246.	2.5	13
31	Kinetic analysis of the effect of O <sub>2</sub> on SF <sub>6</sub> over-thermal decomposition. Journal Physics D: Applied Physics, 2021, 54, 495502.	2.8	12
32	Comprehensive Evaluation and Application of GIS Insulation Condition Part 1: Selection and Optimization of Insulation Condition Comprehensive Evaluation Index Based on Multi-Source Information Fusion. IEEE Access, 2019, 7, 88254-88263.	4.2	10
33	Decomposition Characteristics of SF <sub>6</sub> /N <sub>2</sub> Under Partial Discharge of Different Degrees. IEEE Access, 2020, 8, 192312-192319.	4.2	10
34	Quantitative analysis of the influence of regularity of SF <sub>6</sub> decomposition characteristics with trace O <sub>2</sub> under partial discharge. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 1462-1470.	2.9	9
35	SF <sub>6</sub> ; partial overthermal decomposition characteristics of thermal fault in organic insulating materials. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 829-837.	2.9	9
36	Study on the influence rules of trace H <sub>2</sub> O on SF <sub>6</sub> spark discharge decomposition characteristic components. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 367-374.	2.9	9

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37	Conformation Analysis of Environmentally Friendly Insulating Gas C <sub>5</sub> -PFK. IEEE Access, 2019, 7, 92724-92731.	4.2	9
38	SF <sub>6</sub> decomposition components under different metallic free-conducting wire-type particles in positive DC partial discharge. IEEJ Transactions on Electrical and Electronic Engineering, 2019, 14, 214-220.	1.4	9
39	Influence regularity of trace O <sub>2</sub> on SF <sub>6</sub> decomposition characteristics and its mathematical amendment under partial discharge. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 105-115.	2.9	9
40	Influence of Metallic Materials on SF <sub>6</sub> Decomposition Components under Positive DC Partial Discharge. Plasma Chemistry and Plasma Processing, 2017, 37, 1523-1534.	2.4	8
41	Blade imbalance fault diagnosis of doubly fed wind turbine based on current coordinate transformation. IEEJ Transactions on Electrical and Electronic Engineering, 2019, 14, 185-191.	1.4	8
42	Adsorption Characteristics of SF <sub>6</sub> and its Main Over-Thermal Decomposition Components on Ag (1 1 1) Surface. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 551-558.	2.9	8
43	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> as a Sensor for SF <sub>6</sub> /N <sub>2</sub> Nitrogen-Containing Fault Decomposition Characteristic Products: A Theoretical Study. Nanomaterials, 2022, 12, 2311.	4.1	8
44	The effect of the photoacoustic Field-Photoacoustic cell coupling term on the performance of the gas detection system. Optics and Laser Technology, 2022, 153, 108211.	4.6	7
45	Influence and mechanism of pressure on SF <sub>6</sub> decomposition components of gas-insulated switchgear under positive DC partial discharge. IEEJ Transactions on Electrical and Electronic Engineering, 2018, 13, 1136-1141.	1.4	6
46	Mechanism of Trace O <sub>2</sub> on SF <sub>6</sub> Characteristic Decomposed Components Under Spark Discharge. Plasma Chemistry and Plasma Processing, 2020, 40, 469-481.	2.4	6
47	Compatibility of C <sub>5</sub> F <sub>10</sub> O with common-used sealing materials: An experimental study. AIP Advances, 2021, 11, .	1.3	6
48	Adsorption mechanism of the environmentally friendly insulating gas C <sub>5</sub> F <sub>10</sub> O and its main decomposition products on a Cu (1 1 1) surface. Journal Physics D: Applied Physics, 2021, 54, 145502.	2.8	6
49	Impulse Breakdown Characteristics of Eco-Friendly Gas C <sub>5</sub> F <sub>10</sub> O/N <sub>2</sub> , in Nonhomogeneous Field. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 162-169.	2.9	6
50	Theoretical study of the interaction of SF <sub>6</sub> molecule on Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> surfaces. Applied Surface Science, 2022, 597, 153721.	6.1	6
51	Thermal Decomposition Mechanism of Environmental-Friendly Insulating Gas C <sub>5</sub> F <sub>10</sub> O on Cu (1 1 1) Surface. Plasma Chemistry and Plasma Processing, 2021, 41, 1455-1469.	2.4	4
52	The effect of the convex lens focal length and distance between the optical devices on the photoacoustic signals in gas detection. Sensors and Actuators A: Physical, 2022, 335, 113369.	4.1	4
53	Isotope Tracing Experiment on the Mechanism of O <sub>2</sub> on the Over-Thermal Decomposition of SF <sub>6</sub> . Plasma Chemistry and Plasma Processing, 2022, 42, 505-518.	2.4	4
54	Breakdown Characteristics of Eco-Friendly Gas C <sub>5</sub> F <sub>10</sub> O/CO <sub>2</sub> Under Switching Impulse in Nonuniform Electric Field. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 866-873.	2.9	4

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55	Correlation Characteristics Comparison of SF <sub>6</sub> Decomposition versus Gas Pressure under Negative DC Partial Discharge Initiated by Two Typical Defects. <i>Energies</i> , 2017, 10, 1085.	3.1	3
56	Comprehensive Evaluation and Application of GIS Insulation Condition Part 2: Construction and Application of Comprehensive Evaluation Model Considering Universality and Economic Value. <i>IEEE Access</i> , 2019, 7, 129127-129135.	4.2	3
57	Reaction Thermodynamics of Overthermal Decomposition of C <sub>6</sub> F <sub>12</sub> O. <i>Lecture Notes in Electrical Engineering</i> , 2020, , 43-51.	0.4	3
58	AC Breakdown Characteristics of C <sub>5</sub> F <sub>8</sub> /CO Gas Under Different Electrode Surface Roughness. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2022, 29, 1425-1432.	2.9	3
59	GIS Insulation State Evaluation Based on Multi-source Information Fusion. <i>Lecture Notes in Electrical Engineering</i> , 2020, , 406-416.	0.4	2
60	Switching Impulse Characteristics of C <sub>5</sub> F <sub>10</sub> O Gas Mixtures Under Extremely Nonuniform Field. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2022, 29, 1617-1624.	2.9	2
61	The Influence of Free Wire-type Conducting Particles on SF <sub>6</sub> Sulfur-containing Decomposition Components Under Positive DC Partial Discharge. , 2018, , .		1
62	Intelligent perception of power grid condition. <i>High Voltage</i> , 2021, 6, 923-923.	4.7	1
63	Self-Recovery Pathways of C <sub>5</sub> F <sub>10</sub> O After Over Thermal Decomposition. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2022, 29, 1450-1458.	2.9	1
64	Recognition of partial discharge types based on SF <sub>6</sub> decomposed components under negative DC. , 2018, , .		0
65	Calculation Method of Partial Discharge Severity Assessment Index Weight Using Factor Analysis Based on Mutual Information. , 2018, , .		0
66	Research on SF <sub>6</sub> Sulfur-containing Decomposition Components by Different Metallic Wire-type Free Conducting Particles under Positive DC Partial Discharge. , 2018, , .		0
67	Correlation Characteristics Between Partial Discharge Quantity and SF <sub>6</sub> Decomposition Component Under Negative DC. , 2018, , .		0
68	Decomposition Characteristics of SF <sub>6</sub> and Component Features Extraction Under Negative DC Partial Discharge. <i>Lecture Notes in Electrical Engineering</i> , 2020, , 396-405.	0.4	0
69	Influence Mechanism of O <sub>2</sub> on SF <sub>6</sub> Overheating Decomposition Based on Isotope Tracer. , 2020, , .		0
70	Construction of Reax FF Force Field for SF <sub>6</sub> Gas Insulation Medium under Over-thermal Fault. , 2020, , .		0
71	Effect of O <sub>2</sub> on the Thermal Stability and Decomposition Process of C <sub>5</sub> F <sub>10</sub> O. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2022, , 1-1.	2.9	0
72	Decomposition Process of SF <sub>6</sub> with Residual O <sub>2</sub> under Over-Thermal Fault. , 2021, , .		0

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73	Study on the Compatibility of Chloroprene Rubber and Environment-friendly Insulating Gas C <sub>5</sub> F <sub>10</sub> O. , 2021, , .		0
74	Hybrid numerical simulation of the generation and distribution characteristics of SF <sub>6</sub> heavy particles under different DC PD energies. AIP Advances, 2022, 12, 045226.	1.3	0