

# Xiaoxing Zhang

## List of Publications by Year in descending order

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271  
papers

8,668  
citations

50276

46  
h-index

71685

76  
g-index

276  
all docs

276  
docs citations

276  
times ranked

3134  
citing authors

#	ARTICLE	IF	CITATIONS
1	SnO <sub>2</sub> nanoparticles based highly sensitive gas sensor for detection of C <sub>4</sub> F <sub>7</sub> N: A new eco-friendly gas insulating medium. <i>Journal of Hazardous Materials</i> , 2022, 422, 126882.	12.4	34
2	Plasma-Catalytic Methanol Synthesis from CO <sub>2</sub> Hydrogenation over a Supported Cu Cluster Catalyst: Insights into the Reaction Mechanism. <i>ACS Catalysis</i> , 2022, 12, 1326-1337.	11.2	50
3	Research on infrared spectrum characteristics and detection technology of environmental-friendly insulating medium C <sub>5</sub> F <sub>10</sub> O. <i>Vibrational Spectroscopy</i> , 2022, 118, 103336.	2.2	18
4	Compatibility of eco-friendly insulating medium C <sub>6</sub> F <sub>12</sub> O and sealing material NBR. <i>AIP Advances</i> , 2022, 12, .	1.3	3
5	Adsorption behaviour of CF <sub>4</sub> and COF <sub>2</sub> gas on the GaN monolayer doped with Pt catalytic: A first-principles study. <i>Surface Science</i> , 2022, 719, 122032.	1.9	16
6	Study on insulation defect discharge features of dry-type reactor based on audible acoustic. <i>AIP Advances</i> , 2022, 12, 025210.	1.3	3
7	Theoretical screening into Ru-doped MoS <sub>2</sub> monolayer as a promising gas sensor upon SO <sub>2</sub> and SOF <sub>2</sub> in SF <sub>6</sub> insulation devices. <i>Molecular Physics</i> , 2022, 120, .	1.7	33
8	Nanosecond-pulsed microbubble plasma reactor for plasma-activated water generation and bacterial inactivation. <i>Plasma Processes and Polymers</i> , 2022, 19, .	3.0	43
9	Adsorption Properties of ZSM-5 Molecular Sieve for Perfluoroisobutyronitrile Mixtures and Its Fluorocarbon Decomposition Products. <i>Chemosensors</i> , 2022, 10, 121.	3.6	4
10	Study on partial discharge characteristics of C <sub>6</sub> F <sub>12</sub> O mixed gas. <i>Scientific Reports</i> , 2022, 12, 6265.	3.3	1
11	The effect of the photoacoustic Field-Photoacoustic cell coupling term on the performance of the gas detection system. <i>Optics and Laser Technology</i> , 2022, 153, 108211.	4.6	7
12	Study on Photoacoustic Spectroscopy Detection of CO in Gas Insulation Equipment. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2022, 29, 1498-1505.	2.9	8
13	Flexible Planar Monopole Built-in GIS PD Sensor Based on Meandering Technology. <i>Sensors</i> , 2022, 22, 4134.	3.8	6
14	Infrared Spectrum Analysis and Quantitative Detection of SF <sub>6</sub> Characteristic Decomposition Components SO <sub>2</sub> F <sub>2</sub> and SOF <sub>2</sub> . <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2022, 29, 1316-1323.	2.9	6
15	Arc decomposition behavior of C <sub>4</sub> F <sub>7</sub> N/Air gas mixture and biosafety evaluation of its by-products. <i>High Voltage</i> , 2022, 7, 856-865.	4.7	7
16	PD Flexible Built-In High-Sensitivity Elliptical Monopole Antenna Sensor. <i>Sensors</i> , 2022, 22, 4982.	3.8	5
17	Exploring single atom catalysts of transition-metal doped phosphorus carbide monolayer for HER: A first-principles study. <i>Journal of Energy Chemistry</i> , 2021, 52, 155-162.	12.9	54
18	Real-Time Measurement of SO <sub>2</sub> , H <sub>2</sub> S, and CS <sub>2</sub> Mixed Gases Using Ultraviolet Spectroscopy and a Least Squares Algorithm. <i>Applied Spectroscopy</i> , 2021, 75, 265-273.	2.2	5

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19	SF6 abatement in a packed bed plasma reactor: Role of zirconia size and optimization using RSM. Journal of Industrial and Engineering Chemistry, 2021, 94, 205-216.	5.8	5
20	Research on Pressure-based Detection Technology for Partial Overheat Insulation Defect of Oil-less Power Equipment. IOP Conference Series: Earth and Environmental Science, 2021, 632, 042009.	0.3	2
21	Research on the selection and layout of the cantilever sensor based on photoacoustic spectroscopy gas detection technology. Engineering Research Express, 2021, 3, 025005.	1.6	0
22	A MATLAB GUI teaching application for ferroresonance simulation. Computer Applications in Engineering Education, 2021, 29, 1757-1770.	3.4	2
23	The application of fluorescent optical fiber in partial discharge detection of Ring Main Unit. Measurement: Journal of the International Measurement Confederation, 2021, 174, 108979.	5.0	8
24	Effect of Oxygen on Power Frequency Breakdown Characteristics and Decomposition Properties of C5-PFK/CO <sub>2</sub> Gas Mixture. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 373-380.	2.9	10
25	Compatibility and Interaction Mechanism between EPDM Rubber and a SF <sub>6</sub> Alternative Gas C <sub>4</sub> F <sub>7</sub> N/CO <sub>2</sub> /O <sub>2</sub> . ACS Omega, 2021, 6, 13293-13299.	3.5	13
26	AC Breakdown Strength and Its By-Products of Eco-Friendly Perfluoroisobutyronitrile/O <sub>2</sub> /N <sub>2</sub> Gas Mixture at High Pressure for HV Equipment. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1020-1027.	2.9	8
27	Research on transformer fault diagnosis: Based on improved firefly algorithm optimized LPboost classification and regression tree. IET Generation, Transmission and Distribution, 2021, 15, 2926-2942.	2.5	3
28	Effect of O <sub>2</sub> on AC Partial Discharge and Decomposition Behavior of C <sub>4</sub> F <sub>7</sub> N/CO <sub>2</sub> /O <sub>2</sub> Gas Mixture. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1440-1448.	2.9	8
29	Dissolved gas analysis in transformer oil using Ni-Doped GaN monolayer: A DFT study. Superlattices and Microstructures, 2021, 159, 107055.	3.1	27
30	Experimental study on the effect of O <sub>2</sub> on the decomposition characteristics of C <sub>6</sub> F <sub>12</sub> O/CO <sub>2</sub> gas mixture. AIP Advances, 2021, 11, .	1.3	1
31	The adsorption performance of harmful gas on Cu doped WS <sub>2</sub> : A first-principle study. Materials Today Communications, 2021, 28, 102488.	1.9	36
32	Study of compatibility between eco-friendly insulating medium C <sub>6</sub> F <sub>12</sub> O and sealing material EPDM. Journal of Molecular Structure, 2021, 1244, 130949.	3.6	9
33	Detection of SF <sub>6</sub> decomposition components by pristine and Cr-doped GaN based on the first-principles theory. Computational and Theoretical Chemistry, 2021, 1205, 113431.	2.5	8
34	Simultaneous Detection of Câ„Hâ„, and CO Based on Cantilever-Enhanced Photoacoustic Spectroscopy. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	11
35	The sensitivity of C <sub>4</sub> F <sub>7</sub> N to electric field and its influence to environment-friendly insulating gas mixture C <sub>4</sub> F <sub>7</sub> N/CO <sub>2</sub> . Journal Physics D: Applied Physics, 2021, 54, 055501.	2.8	32
36	Study on the Reaction Mechanism of Ethylene Propylene Diene Monomer Sealing Material and C <sub>5</sub> F <sub>10</sub> Oâ€CO <sub>2</sub> Gas Mixture. ACS Omega, 2021, 6, 28770-28778.	3.5	1

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37	Adsorption of SF <sub>6</sub> Decomposition Products by the S Vacancy Structure and Edge Structure of SnS <sub>2</sub> : A Density Functional Theory Study. ACS Omega, 2021, 6, 28131-28139.	3.5	11
38	Study on the Compatibility of Eco-Friendly Insulating Gas C5F10O/N <sub>2</sub> and C5F10O/Air with Copper Materials in Gas-Insulated Switchgears. Applied Sciences (Switzerland), 2021, 11, 197.	2.5	8
39	Effect of O <sub>2</sub> on Partial Discharge Characteristic of C <sub>5</sub> F <sub>10</sub> O/CO <sub>2</sub> Gas Mixture. , 2021, , .		0
40	Insulation Performance and Electrical Field Sensitivity Properties of HFO-1336mzz(E)/CO <sub>2</sub> : A New Eco-friendly Gas Insulating Medium. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1938-1948.	2.9	17
41	Adsorption behaviour of SO <sub>2</sub> and SOF <sub>2</sub> gas on Rh-doped BNNT: a DFT study. Molecular Physics, 2020, 118, e1580394.	1.7	32
42	A scientific writing pedagogy and mixed methods assessment for engineering education using open-coding and multi-dimensional scaling. International Journal of Technology and Design Education, 2020, 30, 413-426.	2.6	2
43	Plasma-assisted abatement of SF <sub>6</sub> in a dielectric barrier discharge reactor: investigation of the effect of packing materials. Journal Physics D: Applied Physics, 2020, 53, 025205.	2.8	17
44	Effects of Glass Beads Packing on SF <sub>6</sub> Abatement by Packed Bed Plasma. Plasma Chemistry and Plasma Processing, 2020, 40, 43-59.	2.4	7
45	Thermal decomposition properties of fluoronitriles-N <sub>2</sub> gas mixture as alternative gas for SF <sub>6</sub> . Journal of Fluorine Chemistry, 2020, 229, 109434.	1.7	8
46	Acute toxicity and health effect of perfluoroisobutyronitrile on mice: a promising substitute gas-insulating medium to SF <sub>6</sub> . Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2020, 55, 1646-1658.	1.7	8
47	Photoacoustic spectroscopy: Trace CO detection by using 10 mW near-infrared laser and cantilever beam. AIP Advances, 2020, 10, .	1.3	5
48	Detection of decomposition products of C <sub>4</sub> F <sub>7</sub> N-CO <sub>2</sub> gas mixture based on infrared spectroscopy. Vibrational Spectroscopy, 2020, 110, 103114.	2.2	20
49	Transition metal N <sub>4</sub> embedded black phosphorus carbide as a high-performance bifunctional electrocatalyst for ORR/OER. Nanoscale, 2020, 12, 18721-18732.	5.6	39
50	First-Principles Insight into Pd-Doped ZnO Monolayers as a Promising Scavenger for Dissolved Gas Analysis in Transformer Oil. ACS Omega, 2020, 5, 17801-17807.	3.5	40
51	Computational screening of homo and hetero transition metal dimer catalysts for reduction of CO <sub>2</sub> to C <sub>2</sub> products with high activity and low limiting potential. Journal of Materials Chemistry A, 2020, 8, 21241-21254.	10.3	51
52	Effect of Oxygen and Temperature on Thermal Decomposition Characteristics of C <sub>4</sub> F <sub>7</sub> N/CO <sub>2</sub> /O <sub>2</sub> Gas Mixture for MV Equipment. IEEE Access, 2020, 8, 221004-221012.	4.2	12
53	Adsorption of SF <sub>6</sub> Decomposed Products on ZnO-Modified C <sub>3</sub> N: A Theoretical Study. Nanoscale Research Letters, 2020, 15, 186.	5.7	8
54	Research status of replacement gases for SF <sub>6</sub> in power industry. AIP Advances, 2020, 10, .	1.3	39

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55	Interaction Mechanism between the C <sub>4</sub> F <sub>7</sub> Nâ€“CO <sub>2</sub> Gas Mixture and the EPDM Seal Ring. ACS Omega, 2020, 5, 5911-5920.	3.5	17
56	Study on the thermal decomposition characteristics of C <sub>4</sub> F <sub>7</sub> Nâ€“CO <sub>2</sub> mixture as ecoâ€friendly gasâ€insulating medium. High Voltage, 2020, 5, 46-52.	4.7	40
57	The detection and quantification of heptafluoroisobutyronitrile(C4F7N) and its decomposition products by infrared spectroscopy and chemometrics. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 233, 118161.	3.9	2
58	Synergistic Effects of Boron Nitride (BN) Nanosheets and Silver (Ag) Nanoparticles on Thermal Conductivity and Electrical Properties of Epoxy Nanocomposites. Polymers, 2020, 12, 426.	4.5	52
59	Research on Transformer Partial Discharge UHF Pattern Recognition Based on Cnn-lstm. Energies, 2020, 13, 61.	3.1	23
60	Ladderâ€wise calculation method for <i>z</i> -coordinate of transformer PD source based on planar layout UHF antenna sensors. IEEJ Transactions on Electrical and Electronic Engineering, 2020, 15, 340-345.	1.4	35
61	Plasma-assisted abatement of SF <sub>6</sub> in a packed bed plasma reactor: understanding the effect of gas composition. Plasma Science and Technology, 2020, 22, 055502.	1.5	15
62	Thermal and mechanical properties study of boron nitride nanosheets decorated by silver/epoxy nanocomposites. SN Applied Sciences, 2020, 2, 1.	2.9	6
63	Theoretical calculation of total electron-impact ionization cross section of C6F12O. AIP Advances, 2020, 10, 035217.	1.3	9
64	Influence regularity of O <sub>2</sub> on dielectric and decomposition properties of C <sub>4</sub> F <sub>7</sub> Nâ€“CO <sub>2</sub> â€“O <sub>2</sub> gas mixture for mediumâ€voltage equipment. High Voltage, 2020, 5, 256-263.	4.7	30
65	Corrections to â€œRu-InN Monolayer as a Gas Scavenger to Guard the Operation Status of SF <sub>6</sub> Insulation Devices: A First-Principles Theoryâ€[Jul 19 5249-5255]. IEEE Sensors Journal, 2020, 20, 562-562.	4.7	4
66	Research Status of Insulation Detection Technology for Less Oil-Immersed Power Equipment. , 2020, , .		0
67	Method of Multi-Sample Maximum Correlation Wavelet High Energy Scale on Location Time Difference Calculation of Partial Discharge Source. , 2020, , .		0
68	Study on the Thermal Decomposition Characteristics of C5F10O/N2 Gas Mixture. , 2020, , .		0
69	Effect of O2 on The AC Breakdown Characteristics Of C5F10O/CO2. , 2020, , .		0
70	Photoacoustic Spectrum Detection of CO Based on Optimizing Non-resonant Photoacoustic Pool. , 2020, , .		2
71	Effect of Nickel Doping on Adsorption of SF6 Decomposition Products over MoS2 Surface. Jom, 2019, 71, 3971-3979.	1.9	13
72	Adsorption and decomposition of SF6 molecule on 111-Al2O3 (0 0 1) surface: a DFT study. Adsorption, 2019, 25, 1625-1632.	3.0	16

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73	Facile Fabrication of Au Nanoparticles/Tin Oxide/Reduced Graphene Oxide Ternary Nanocomposite and Its High-Performance SF <sub>6</sub> Decomposition Components Sensing. <i>Frontiers in Chemistry</i> , 2019, 7, 476.	3.6	11
74	Correction to "Thermal Compatibility Between Perfluoroisobutyronitrile-CO <sub>2</sub> Gas Mixture With Copper, Aluminum Switchgear". <i>IEEE Access</i> , 2019, 7, 56770-56771.	4.2	0
75	Experimental Study on Compatibility of Eco-Friendly Insulating Medium C <sub>5</sub> F <sub>10</sub> O/CO <sub>2</sub> Gas Mixture With Copper and Aluminum. <i>IEEE Access</i> , 2019, 7, 83994-84002.	4.2	37
76	Overheating decomposition characteristics of epoxy dielectrics in SF <sub>6</sub> atmosphere. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2019, 26, 1411-1417.	2.9	11
77	AC Breakdown and Decomposition Characteristics of Environmental Friendly Gas C <sub>5</sub> F <sub>10</sub> O/Air and C <sub>5</sub> F <sub>10</sub> O/N <sub>2</sub> . <i>IEEE Access</i> , 2019, 7, 73954-73960.	4.2	56
78	Influence of oxygen on dielectric and decomposition properties of C <sub>4</sub> F <sub>7</sub> N <sub>2</sub> O <sub>2</sub> mixture. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2019, 26, 1279-1286.	2.9	33
79	Using Pd-Doped <sup>13</sup> C-Graphyne to Detect Dissolved Gases in Transformer Oil: A Density Functional Theory Investigation. <i>Nanomaterials</i> , 2019, 9, 1490.	4.1	37
80	Experimental study on the effect of O <sub>2</sub> on the discharge decomposition products of C <sub>5</sub> -PFK/N <sub>2</sub> mixtures. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 19353-19361.	2.2	13
81	Sensing properties of Ni-doped boron nitride nanotube to SF <sub>6</sub> decomposed components: A DFT study. <i>AIP Advances</i> , 2019, 9, .	1.3	30
82	First-principles insight into Ni-doped InN monolayer as a noxious gases scavenger. <i>Applied Surface Science</i> , 2019, 494, 859-866.	6.1	250
83	Rh-doped MoSe <sub>2</sub> as a toxic gas scavenger: a first-principles study. <i>Nanoscale Advances</i> , 2019, 1, 772-780.	4.6	261
84	Quantitative analysis of SO <sub>2</sub> , H <sub>2</sub> S and CS <sub>2</sub> mixed gases based on ultraviolet differential absorption spectrometry. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 215, 187-195.	3.9	26
85	Ab Initio Study of SO <sub>2</sub> and SO <sub>2</sub> F <sub>2</sub> Adsorption on Co-MoS <sub>2</sub> . <i>ACS Omega</i> , 2019, 4, 2517-2522.	3.5	19
86	High selectivity n-type InSe monolayer toward decomposition products of sulfur hexafluoride: A density functional theory study. <i>Applied Surface Science</i> , 2019, 479, 852-862.	6.1	20
87	Assessment on the toxicity and application risk of C <sub>4</sub> F <sub>7</sub> N: A new SF <sub>6</sub> alternative gas. <i>Journal of Hazardous Materials</i> , 2019, 368, 653-660.	12.4	78
88	Dissolved Gas Analysis in Transformer Oil Using Pt-Doped WSe <sub>2</sub> Monolayer Based on First Principles Method. <i>IEEE Access</i> , 2019, 7, 72012-72019.	4.2	58
89	Effect of oxygen on power frequency breakdown voltage and decomposition characteristics of the C <sub>5</sub> F <sub>10</sub> O/N <sub>2</sub> O <sub>2</sub> gas mixture. <i>RSC Advances</i> , 2019, 9, 18963-18970.	3.6	15
90	Research on C <sub>4</sub> F <sub>7</sub> N gas mixture detection based on infrared spectroscopy. <i>Sensors and Actuators A: Physical</i> , 2019, 294, 126-132.	4.1	11

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91	A First-Principles Study of the SF <sub>6</sub> Decomposed Products Adsorbed Over Defective WS <sub>2</sub> Monolayer as Promising Gas Sensing Device. IEEE Transactions on Device and Materials Reliability, 2019, 19, 473-483.	2.0	90
92	Decomposition Characteristics of SF <sub>6</sub> under Flashover Discharge on the Epoxy Resin Surface. Materials, 2019, 12, 1408.	2.9	7
93	Repairing the N-vacancy in an InN monolayer using NO molecules: a first-principles study. Nanoscale Advances, 2019, 1, 2003-2008.	4.6	14
94	Theoretical study on the interaction between SF <sub>6</sub> molecule and BaTiO <sub>3</sub> (0 0 1) surface: A DFT study. Applied Surface Science, 2019, 483, 409-416.	6.1	25
95	Optimized sleeve monopole antenna for detection of electrostatic discharge radiation of spacecraft solar array. Review of Scientific Instruments, 2019, 90, 015008.	1.3	2
96	Study on the thermal interaction mechanism between C <sub>4</sub> F <sub>7</sub> N-N <sub>2</sub> and copper, aluminum. Corrosion Science, 2019, 153, 32-46.	6.6	32
97	Thermodynamic simulations of SrTiO <sub>3</sub> /epoxy nanocomposites with different mass fractions. SN Applied Sciences, 2019, 1, 1.	2.9	2
98	Ru-InN Monolayer as a Gas Scavenger to Guard the Operation Status of SF <sub>6</sub> Insulation Devices: A First-Principles Theory. IEEE Sensors Journal, 2019, 19, 5249-5255.	4.7	158
99	Different doping of penta-graphene as adsorbent and gas sensing material for scavenging and detecting SF <sub>6</sub> decomposed species. Sustainable Materials and Technologies, 2019, 21, e00100.	3.3	11
100	Dissolved gas analysis in transformer oil using Pd catalyst decorated MoSe <sub>2</sub> monolayer: A first-principles theory. Sustainable Materials and Technologies, 2019, 20, e00094.	3.3	99
101	Thermal Compatibility Between Perfluoroisobutyronitrile-CO <sub>2</sub> Gas Mixture With Copper and Aluminum Switchgear. IEEE Access, 2019, 7, 19792-19800.	4.2	15
102	Ultraviolet Spectral Analysis and Quantitative Detection of Heptafluoroisobutyronitrile (C <sub>4</sub> F <sub>7</sub> N) in a C <sub>4</sub> F <sub>7</sub> N+Carbon Dioxide (CO <sub>2</sub> ) Gas Mixture. Applied Spectroscopy, 2019, 73, 917-926.	2.2	21
103	Theoretical study of SF <sub>6</sub> decomposition on the MoS <sub>2</sub> monolayer doped with Ag, Ni, Au, Pt: a first-principles study. Adsorption, 2019, 25, 225-233.	3.0	12
104	On-Line Monitoring of Partial Discharge of Less-Oil Immersed Electric Equipment Based on Pressure and UHF. IEEE Access, 2019, 7, 11178-11186.	4.2	20
105	Experimental Study on Power Frequency Breakdown Characteristics of C <sub>4</sub> F <sub>7</sub> N/CO <sub>2</sub> Gas Mixture Under Quasi-Homogeneous Electric Field. IEEE Access, 2019, 7, 19100-19108.	4.2	27
106	Application of C <sub>6</sub> F <sub>12</sub> O/CO <sub>2</sub> mixture in 10kV medium-voltage switchgear. IET Science, Measurement and Technology, 2019, 13, 1225-1230.	1.6	59
107	Nanomaterials-based gas sensors of SF <sub>6</sub> decomposed species for evaluating the operation status of high-voltage insulation devices. High Voltage, 2019, 4, 242-258.	4.7	124
108	Influence of Oxygen on the Thermal Decomposition Properties of C <sub>4</sub> F <sub>7</sub> N+N <sub>2</sub> O <sub>2</sub> as an Eco-Friendly Gas Insulating Medium. ACS Omega, 2019, 4, 18616-18626.	3.5	8



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109	Partial discharge characteristics of C6F12O/CO2 mixed gas at power frequency AC voltage. AIP Advances, 2019, 9, .	1.3	9
110	SF <sub>6</sub> abatement in a packed bed plasma reactor: study towards the effect of O <sub>2</sub> concentration. RSC Advances, 2019, 9, 34827-34836.	3.6	7
111	Thermal compatibility properties of C6F12O-air gas mixture with metal materials. AIP Advances, 2019, 9, .	1.3	12
112	Theoretical study on the interaction of heptafluoro-iso-butyronitrile decomposition products with Al (1 1 1). Molecular Physics, 2019, 117, 218-227.	1.7	4
113	Density functional theory study of small Ag cluster adsorbed on graphyne. Applied Surface Science, 2019, 465, 93-102.	6.1	46
114	Theoretical study on the interaction between C5-PFK and Al (1̂-1̂-1), Ag (1̂-1̂-1): A comparative study. Applied Surface Science, 2019, 464, 586-596.	6.1	31
115	Adsorption of SF6 decomposition components over Pd (1̂-1̂-1): A density functional theory study. Applied Surface Science, 2019, 465, 172-179.	6.1	112
116	Experimental study on the partial discharge and AC breakdown properties of C <sub>4</sub> F <sub>7</sub> N/CO <sub>2</sub> mixture. High Voltage, 2019, 4, 12-17.	4.7	45
117	Using Single-Layer HfS <sub>2</sub> as Prospective Sensing Device Toward Typical Partial Discharge Gas in SF <sub>6</sub> -Based Gas-Insulated Switchgear. IEEE Transactions on Electron Devices, 2019, 66, 689-695.	3.0	26
118	Insight into the compatibility between C4F7N and silver: Experiment and theory. Journal of Physics and Chemistry of Solids, 2019, 126, 105-111.	4.0	14
119	Insight into the decomposition mechanism of C6F12O-CO2 gas mixture. Chemical Engineering Journal, 2019, 360, 929-940.	12.7	50
120	Pt & Pd decorated CNT as a workable media for SOF2 sensing: A DFT study. Applied Surface Science, 2019, 471, 335-341.	6.1	125
121	Thermal Decomposition Properties of Epoxy Resin in SF6/N2 Mixture. Materials, 2019, 12, 75.	2.9	14
122	Detecting Decompositions of Sulfur Hexafluoride Using MoS <sub>2</sub> Monolayer as Gas Sensor. IEEE Sensors Journal, 2019, 19, 39-46.	4.7	51
123	High Selective SO <sub>2</sub> Gas Sensor Based on Monolayer $\eta$ -AsSb to Detect SF <sub>6</sub> Decompositions. IEEE Sensors Journal, 2019, 19, 1215-1223.	4.7	21
124	Pd-doped MoS2 monolayer: A promising candidate for DGA in transformer oil based on DFT method. Applied Surface Science, 2019, 470, 1035-1042.	6.1	248
125	Pristine and Cu decorated hexagonal InN monolayer, a promising candidate to detect and scavenge SF6 decompositions based on first-principle study. Journal of Hazardous Materials, 2019, 363, 346-357.	12.4	146
126	A review of hyperspectral imaging for nanoscale materials research. Applied Spectroscopy Reviews, 2019, 54, 285-305.	6.7	43



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127	Experimental research on insulation properties of C <sub>6</sub> F <sub>12</sub> O/N <sub>2</sub> and C <sub>6</sub> F <sub>12</sub> O/CO <sub>2</sub> gas mixtures. IET Generation, Transmission and Distribution, 2019, 13, 417-422.	2.5	19
128	Adsorption behavior of COF <sub>2</sub> and CF <sub>4</sub> gas on the MoS <sub>2</sub> monolayer doped with Ni: A first-principles study. Applied Surface Science, 2018, 443, 274-279.	6.1	70
129	Adsorption mechanism of SF <sub>6</sub> decomposed species on pyridine-like PtN <sub>3</sub> embedded CNT: A DFT study. Applied Surface Science, 2018, 447, 594-598.	6.1	110
130	Detecting decompositions of sulfur hexafluoride using reduced graphene oxide decorated with Pt nanoparticles. Journal Physics D: Applied Physics, 2018, 51, 185304.	2.8	15
131	Adsorption behaviour of SF <sub>6</sub> decomposed species onto Pd <sub>4</sub> -decorated single-walled CNT: a DFT study. Molecular Physics, 2018, 116, 1749-1755.	1.7	31
132	Effects of Reduced Electric Field on Sulfur Hexafluoride Removal for a Double Dielectric Barrier Discharge Reactor. IEEE Transactions on Plasma Science, 2018, 46, 563-570.	1.3	10
133	Decomposition characteristics of C <sub>5</sub> F <sub>10</sub> O/air mixture as substitutes for SF <sub>6</sub> to reduce global warming. Journal of Fluorine Chemistry, 2018, 208, 65-72.	1.7	36
134	Noble metal (Pt or Au)-doped monolayer MoS <sub>2</sub> as a promising adsorbent and gas-sensing material to SO <sub>2</sub> , SOF <sub>2</sub> and SO <sub>2</sub> F <sub>2</sub> : a DFT study. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	105
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