

De-Zheng Yang

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

1,192
citations

394421

19
h-index

414414

32
g-index

56
all docs

56
docs citations

56
times ranked

849
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Review of the distribution and detection methods of heavy metals in the environment. <i>Analytical Methods</i> , 2020, 12, 5747-5766. | 2.7 | 104 |
| 2 | A DFT screening of single transition atoms supported on MoS ₂ as highly efficient electrocatalysts for the nitrogen reduction reaction. <i>Nanoscale</i> , 2020, 12, 10035-10043. | 5.6 | 94 |
| 3 | A Review of Recent Advances of Dielectric Barrier Discharge Plasma in Catalysis. <i>Nanomaterials</i> , 2019, 9, 1428. | 4.1 | 73 |
| 4 | A homogeneous dielectric barrier discharge plasma excited by a bipolar nanosecond pulse in nitrogen and air. <i>Plasma Sources Science and Technology</i> , 2012, 21, 035004. | 3.1 | 68 |
| 5 | The single-Mo-atom-embedded-graphdiyne monolayer with ultra-low onset potential as high efficient electrocatalyst for N ₂ reduction reaction. <i>Applied Surface Science</i> , 2020, 506, 144941. | 6.1 | 48 |
| 6 | Comparison of atmospheric air plasmas excited by high-voltage nanosecond pulsed discharge and sinusoidal alternating current discharge. <i>Journal of Applied Physics</i> , 2013, 114, . | 2.5 | 44 |
| 7 | Hydrophilicity modification of aramid fiber using a linear shape plasma excited by nanosecond pulse. <i>Surface and Coatings Technology</i> , 2018, 344, 614-620. | 4.8 | 43 |
| 8 | Multiple current peaks in room-temperature atmospheric pressure homogenous dielectric barrier discharge plasma excited by high-voltage tunable nanosecond pulse in air. <i>Applied Physics Letters</i> , 2013, 102, . | 3.3 | 40 |
| 9 | Production of atmospheric pressure diffuse nanosecond pulsed dielectric barrier discharge using the array needles-plate electrode in air. <i>Journal of Applied Physics</i> , 2011, 109, . | 2.5 | 37 |
| 10 | Degradation of trimethoprim in aqueous by persulfate activated with nanosecond pulsed gas-liquid discharge plasma. <i>Journal of Environmental Management</i> , 2021, 278, 111539. | 7.8 | 30 |
| 11 | Needle-array to Plate DBD Plasma Using Sine AC and Nanosecond Pulse Excitations for Purpose of Improving Indoor Air Quality. <i>Scientific Reports</i> , 2016, 6, 25242. | 3.3 | 29 |
| 12 | Mode transition and plasma characteristics of nanosecond pulse gas-liquid discharge: Effect of grounding configuration. <i>Plasma Processes and Polymers</i> , 2020, 17, 1900146. | 3.0 | 29 |
| 13 | The dynamic evolution and interaction with dielectric material of the discharge in packed bed reactor. <i>Plasma Sources Science and Technology</i> , 2020, 29, 055004. | 3.1 | 29 |
| 14 | An atmospheric air gas-liquid diffuse discharge excited by bipolar nanosecond pulse in quartz container used for water sterilization. <i>Applied Physics Letters</i> , 2013, 103, . | 3.3 | 25 |
| 15 | Atmospheric Pressure Gas-Liquid Diffuse Nanosecond Pulse Discharge Used for Sterilization in Sewage. <i>Plasma Processes and Polymers</i> , 2014, 11, 842-849. | 3.0 | 25 |
| 16 | Ultra-high synergetic intensity for humic acid removal by coupling bubble discharge with activated carbon. <i>Journal of Hazardous Materials</i> , 2021, 403, 123626. | 12.4 | 25 |
| 17 | Controlling of reactive species in atmospheric Ar bubble discharge by adding N ₂ /O ₂ . <i>Plasma Processes and Polymers</i> , 2019, 16, 1800124. | 3.0 | 22 |
| 18 | Detection of trace heavy metals using atmospheric pressure glow discharge by optical emission spectra. <i>High Voltage</i> , 2019, 4, 228-233. | 4.7 | 22 |

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|----|--|------|-----------|
| 19 | Measurement of reactive species in different solutions of bubble discharge with varying O_2/N_2 proportion in Ar: Analysis of reaction pathways. <i>Plasma Processes and Polymers</i> , 2019, 16, e190001. | 3.0 | 21 |
| 20 | Nanosecond pulsed uniform dielectric barrier discharge in atmospheric air: A brief spectroscopic analysis. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 207, 294-300. | 3.9 | 21 |
| 21 | Atmospheric air diffuse array-needles dielectric barrier discharge excited by positive, negative, and bipolar nanosecond pulses in large electrode gap. <i>Journal of Applied Physics</i> , 2014, 116, . | 2.5 | 19 |
| 22 | An uniform DBD plasma excited by bipolar nanosecond pulse using wire-cylinder electrode configuration in atmospheric air. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 122, 107-112. | 3.9 | 19 |
| 23 | Atmospheric air dielectric barrier discharge excited by nanosecond pulse and AC used for improving the hydrophilicity of aramid fibers. <i>Plasma Science and Technology</i> , 2017, 19, 125401. | 1.5 | 19 |
| 24 | Degradation of methylene blue in liquid using high-voltage pulsed discharge plasma synergizing iron-based catalyst-activated persulfate. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 244002. | 2.8 | 18 |
| 25 | Discharge Regimes Transition and Characteristics Evolution of Nanosecond Pulsed Dielectric Barrier Discharge. <i>Nanomaterials</i> , 2019, 9, 1381. | 4.1 | 17 |
| 26 | Spectroscopic and electrical characters of SBD plasma excited by bipolar nanosecond pulse in atmospheric air. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2016, 161, 186-194. | 3.9 | 16 |
| 27 | Temporal evolution of the relative vibrational population of $N_2(C^3\pi_u)$ and optical emission spectra of atmospheric pressure plasma jets in He mixtures. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 285203. | 2.8 | 16 |
| 28 | CO ₂ conversion in a coaxial dielectric barrier discharge plasma reactor in the presence of mixed ZrO ₂ -CeO ₂ . <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104654. | 6.7 | 16 |
| 29 | The effect of dielectric thickness on diffuse nanosecond dielectric barrier discharges using a needle array-plate electrode configuration in air at atmospheric pressure. <i>Journal of Applied Physics</i> , 2013, 113, 233305. | 2.5 | 15 |
| 30 | Characteristic study of a transient spark driven by a nanosecond pulse power in atmospheric nitrogen using a water cathode. <i>Journal of Applied Physics</i> , 2019, 125, . | 2.5 | 15 |
| 31 | A pulsed electrolyte cathode discharge used for metal element analysis by atomic emission spectrometry. <i>Physics of Plasmas</i> , 2019, 26, . | 1.9 | 15 |
| 32 | Comparison of gas phase discharge and gas-liquid discharge for water activation and methylene blue degradation. <i>Vacuum</i> , 2020, 181, 109644. | 3.5 | 15 |
| 33 | Plasma characteristics and mode transition of atmospheric pressure gas-liquid discharge oxygen plasma. <i>Journal of Applied Physics</i> , 2020, 128, 093303. | 2.5 | 15 |
| 34 | Highly efficient adsorptive removal of persistent organic pollutants using NPD-acid combined modified NaY zeolites. <i>Chemical Engineering Journal</i> , 2022, 431, 133858. | 12.7 | 15 |
| 35 | DBD Plasma Combined with Different Foam Metal Electrodes for CO ₂ Decomposition: Experimental Results and DFT Validations. <i>Nanomaterials</i> , 2019, 9, 1595. | 4.1 | 13 |
| 36 | Degradation of persistent organic pollutants in soil by parallel tubes-array dielectric barrier discharge plasma cooperating with catalyst. <i>Chemical Engineering Journal</i> , 2022, 437, 135089. | 12.7 | 13 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | A large-area diffuse air discharge plasma excited by nanosecond pulse under a double hexagon needle-array electrode. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 121, 698-703. | 3.9 | 11 |
| 38 | Direct synthesis of AlN nano powder by dielectric barrier discharge plasma assisted high-energy ball milling. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 8518-8523. | 2.2 | 11 |
| 39 | Electrical and optical characteristics of diffuse nanosecond pulsed discharge plasma using a needle-array electrode in atmospheric air. <i>Journal of Applied Physics</i> , 2014, 115, . | 2.5 | 10 |
| 40 | Discharge modes and characteristics optimization of nanosecond pulsed discharge in packed bed reactor. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 245206. | 2.8 | 10 |
| 41 | Optical and application study of gas-liquid discharge excited by bipolar nanosecond pulse in atmospheric air. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 131, 571-576. | 3.9 | 8 |
| 42 | Enhancing the adsorption property of macroporous XAD-2 resin by nanosecond pulsed discharge plasma modification. <i>Plasma Processes and Polymers</i> , 2021, 18, 2000117. | 3.0 | 8 |
| 43 | Dry reforming of methane in a nanosecond repetitively pulsed discharge: chemical kinetics modeling. <i>Plasma Sources Science and Technology</i> , 2022, 31, 055014. | 3.1 | 8 |
| 44 | XAD-2 resin modified by nanosecond pulsed discharge to improve the adsorption capacity of polycyclic aromatic hydrocarbons. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 025202. | 2.8 | 6 |
| 45 | Degradation of Benzene Using Dielectric Barrier Discharge Plasma Combined with Transition Metal Oxide Catalyst in Air. <i>Catalysts</i> , 2022, 12, 203. | 3.5 | 6 |
| 46 | A Review on Modification Methods of Adsorbents for Naphthalene in Environment. <i>Catalysts</i> , 2022, 12, 398. | 3.5 | 6 |
| 47 | Temporal resolved atomic emission spectroscopy on a pulsed electrolyte cathode discharge for improving the detection sensitivity of Cu. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2021, 177, 106072. | 2.9 | 5 |
| 48 | Discharge characteristics and reactive species production of unipolar and bipolar nanosecond pulsed gas-liquid discharge generated in atmospheric N ₂ . <i>Plasma Science and Technology</i> , 2021, 23, 095405. | 1.5 | 4 |
| 49 | Effect of Different Precursors on Synthesized AlN by Plasma-Assisted Ball Milling. <i>Materials and Manufacturing Processes</i> , 2016, 31, 1583-1588. | 4.7 | 3 |
| 50 | In Situ Detection of Trace Heavy Metal Cu in Water by Atomic Emission Spectrometry of Nebulized Discharge Plasma at Atmospheric Pressure. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 4939. | 2.5 | 3 |
| 51 | Decomposition of Naphthalene by Dielectric Barrier Discharge in Conjunction with a Catalyst at Atmospheric Pressure. <i>Catalysts</i> , 2022, 12, 740. | 3.5 | 3 |
| 52 | The OES Diagnosis in Removal of HCHO by the Uniform Bipolar Nanosecond-Pulsed DBD Using Wire-Cylinder Electrode Configuration in Atmospheric N ₂ . <i>IEEE Transactions on Plasma Science</i> , 2016, 44, 3001-3008. | 1.3 | 2 |
| 53 | The influences of shielding gas and quartz tube on discharge properties and reactive species productions of nanosecond pulsed gas-liquid discharge. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 195204. | 2.8 | 2 |
| 54 | Processes of Raising Voltage and Reducing Voltage in Needle-Plate Dielectric Barrier Discharge. <i>IEEE Transactions on Plasma Science</i> , 2013, 41, 2527-2531. | 1.3 | 1 |

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|----|--|-----|-----------|
| 55 | The Effect of Voltage Pulse Shape on the Discharge Characteristics in the Packed Bed Reactor under Air and Nitrogen. Applied Sciences (Switzerland), 2022, 12, 2215. | 2.5 | 0 |