Annemie Bogaerts

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2334920/publications.pdf

Version: 2024-02-01

613 papers	29,687 citations	4960 84 h-index	12597 132 g-index
634 all docs	634 docs citations	634 times ranked	13595 citing authors

#	Article	IF	Citations
1	Gas discharge plasmas and their applications. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2002, 57, 609-658.	2.9	822
2	Plasma technology â€“ a novel solution for CO₂ conversion?. Chemical Society Reviews, 2017, 46, 5805-5863.	38.1	760
3	The 2017 Plasma Roadmap: Low temperature plasma science and technology. Journal Physics D: Applied Physics, 2017, 50, 323001.	2.8	710
4	Plasma Catalysis: Synergistic Effects at the Nanoscale. Chemical Reviews, 2015, 115, 13408-13446.	47.7	537
5	Laser ablation for analytical sampling: what can we learn from modeling?. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2003, 58, 1867-1893.	2.9	395
6	Plasma Technology: An Emerging Technology for Energy Storage. ACS Energy Letters, 2018, 3, 1013-1027.	17.4	363
7	The 2020 plasma catalysis roadmap. Journal Physics D: Applied Physics, 2020, 53, 443001.	2.8	362
8	Splitting of CO₂by vibrational excitation in non-equilibrium plasmas: a reaction kinetics model. Plasma Sources Science and Technology, 2014, 23, 045004.	3.1	334
9	Effect of lipid peroxidation on membrane permeability of cancer and normal cells subjected to oxidative stress. Chemical Science, 2016, 7, 489-498.	7.4	307
10	Carbon Dioxide Splitting in a Dielectric Barrier Discharge Plasma: A Combined Experimental and Computational Study. ChemSusChem, 2015, 8, 702-716.	6.8	284
11	Understanding plasma catalysis through modelling and simulationâ€"a review. Journal Physics D: Applied Physics, 2014, 47, 224010.	2.8	241
12	Identification of the biologically active liquid chemistry induced by a nonthermal atmospheric pressure plasma jet. Biointerphases, 2015, 10, 029518.	1.6	226
13	Collisional-radiative model for an argon glow discharge. Journal of Applied Physics, 1998, 84, 121-136.	2.5	223
14	Effect of laser parameters on laser ablation and laser-induced plasma formation: A numerical modeling investigation. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 1280-1307.	2.9	220
15	Kinetic modelling for an atmospheric pressure argon plasma jet in humid air. Journal Physics D: Applied Physics, 2013, 46, 275201.	2.8	201
16	Plasma-Based Dry Reforming: A Computational Study Ranging from the Nanoseconds to Seconds Time Scale. Journal of Physical Chemistry C, 2013, 117, 4957-4970.	3.1	199
17	Plasma-based conversion of CO₂: current status and future challenges. Faraday Discussions, 2015, 183, 217-232.	3.2	199
18	Influence of Vibrational States on CO₂ Splitting by Dielectric Barrier Discharges. Journal of Physical Chemistry C, 2012, 116, 23257-23273.	3.1	198

#	Article	IF	Citations
19	Conversion of carbon dioxide to value-added chemicals in atmospheric pressure dielectric barrier discharges. Plasma Sources Science and Technology, 2010, 19, 034015.	3.1	185
20	Nonâ€Thermal Plasma as a Unique Delivery System of Shortâ€Lived Reactive Oxygen and Nitrogen Species for Immunogenic Cell Death in Melanoma Cells. Advanced Science, 2019, 6, 1802062.	11.2	177
21	The Chemical Route to a Carbon Dioxide Neutral World. ChemSusChem, 2017, 10, 1039-1055.	6.8	174
22	ROS from Physical Plasmas: Redox Chemistry for Biomedical Therapy. Oxidative Medicine and Cellular Longevity, 2019, 2019, 1-29.	4.0	168
23	Plasma-driven catalysis: green ammonia synthesis with intermittent electricity. Green Chemistry, 2020, 22, 6258-6287.	9.0	163
24	Laser ablation of Cu and plume expansion into 1atm ambient gas. Journal of Applied Physics, 2005, 97, 063305.	2.5	162
25	Catalyzed Growth of Carbon Nanotube with Definable Chirality by Hybrid Molecular Dynamicsâˆ'Force Biased Monte Carlo Simulations. ACS Nano, 2010, 4, 6665-6672.	14.6	162
26	Can plasma be formed in catalyst pores? A modeling investigation. Applied Catalysis B: Environmental, 2016, 185, 56-67.	20.2	162
27	Nitrogen Fixation by Gliding Arc Plasma: Better Insight by Chemical Kinetics Modelling. ChemSusChem, 2017, 10, 2145-2157.	6.8	155
28	CO₂conversion in a dielectric barrier discharge plasma: N₂in the mix as a helping hand or problematic impurity?. Energy and Environmental Science, 2016, 9, 999-1011.	30.8	154
29	CO2 dissociation in a packed bed DBD reactor: First steps towards a better understanding of plasma catalysis. Chemical Engineering Journal, 2017, 326, 477-488.	12.7	154
30	Modeling of metastable argon atoms in a direct-current glow discharge. Physical Review A, 1995, 52, 3743-3751.	2.5	152
31	The dominant role of impurities in the composition of high pressure noble gas plasmas. Applied Physics Letters, 2008, 92, .	3.3	151
32	Plasma physics of liquidsâ€"A focused review. Applied Physics Reviews, 2018, 5, 031103.	11.3	149
33	Effect of Argon or Helium on the CO₂ Conversion in a Dielectric Barrier Discharge. Plasma Processes and Polymers, 2015, 12, 755-763.	3.0	147
34	Evaluation of the energy efficiency of CO₂conversion in microwave discharges using a reaction kinetics model. Plasma Sources Science and Technology, 2015, 24, 015024.	3.1	144
35	How Oxygen Vacancies Activate CO₂ Dissociation on TiO₂ Anatase (001). Journal of Physical Chemistry C, 2016, 120, 21659-21669.	3.1	141
36	Streamer propagation in a packed bed plasma reactor for plasma catalysis applications. Chemical Engineering Journal, 2018, 334, 2467-2479.	12.7	141

#	Article	IF	Citations
37	The 2022 Plasma Roadmap: low temperature plasma science and technology. Journal Physics D: Applied Physics, 2022, 55, 373001.	2.8	139
38	Atomic Spectroscopy. Analytical Chemistry, 2006, 78, 3917-3946.	6.5	137
39	Plasma-Induced Destruction of Bacterial Cell Wall Components: A Reactive Molecular Dynamics Simulation. Journal of Physical Chemistry C, 2013, 117, 5993-5998.	3.1	136
40	Hybrid Monte Carloâ€fluid model of a direct current glow discharge. Journal of Applied Physics, 1995, 78, 2233-2241.	2.5	133
41	Changing Chirality during Single-Walled Carbon Nanotube Growth: A Reactive Molecular Dynamics/Monte Carlo Study. Journal of the American Chemical Society, 2011, 133, 17225-17231.	13.7	129
42	Fluid Modeling of the Conversion of Methane into Higher Hydrocarbons in an Atmospheric Pressure Dielectric Barrier Discharge. Plasma Processes and Polymers, 2011, 8, 1033-1058.	3.0	129
43	Detailed modeling of hydrocarbon nanoparticle nucleation in acetylene discharges. Physical Review E, 2006, 73, 026405.	2.1	125
44	Improving the Conversion and Energy Efficiency of Carbon Dioxide Splitting in a Zirconiaâ€Packed Dielectric Barrier Discharge Reactor. Energy Technology, 2015, 3, 1038-1044.	3.8	122
45	Modeling of CO₂ Splitting in a Microwave Plasma: How to Improve the Conversion and Energy Efficiency. Journal of Physical Chemistry C, 2017, 121, 8236-8251.	3.1	122
46	Atomic Spectroscopy: A Review. Analytical Chemistry, 2010, 82, 4653-4681.	6.5	118
47	Plasma-based dry reforming: improving the conversion and energy efficiency in a dielectric barrier discharge. RSC Advances, 2015, 5, 29799-29808.	3.6	116
48	Synergistic effect of electric field and lipid oxidation on the permeability of cell membranes. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 839-847.	2.4	116
49	Ammonia Synthesis by Radio Frequency Plasma Catalysis: Revealing the Underlying Mechanisms. ACS Applied Energy Materials, 2018, 1, 4824-4839.	5.1	116
50	Hydrogenation of Carbon Dioxide to Value-Added Chemicals by Heterogeneous Catalysis and Plasma Catalysis. Catalysts, 2019, 9, 275.	3.5	116
51	Numerical investigation of ion-energy-distribution functions in single and dual frequency capacitively coupled plasma reactors. Physical Review E, 2004, 69, 026406.	2.1	115
52	CO₂ Conversion in a Microwave Plasma Reactor in the Presence of N₂: Elucidating the Role of Vibrational Levels. Journal of Physical Chemistry C, 2015, 119, 12815-12828.	3.1	115
53	A packed-bed DBD micro plasma reactor for CO2 dissociation: Does size matter?. Chemical Engineering Journal, 2018, 348, 557-568.	12.7	115
54	Gliding Arc Plasmatron: Providing an Alternative Method for Carbon Dioxide Conversion. ChemSusChem, 2017, 10, 2642-2652.	6.8	114

#	Article	IF	Citations
55	Transport and accumulation of plasma generated species in aqueous solution. Physical Chemistry Chemical Physics, 2018, 20, 6845-6859.	2.8	112
56	Oxidative stress in healthy pregnancy and preeclampsia is linked to chronic inflammation, iron status and vascular function. PLoS ONE, 2018, 13, e0202919.	2.5	112
57	Fluid modelling of a packed bed dielectric barrier discharge plasma reactor. Plasma Sources Science and Technology, 2016, 25, 015002.	3.1	111
58	Modeling Plasma-based CO₂ and CH₄ Conversion in Mixtures with N₂, O₂, and H₂O: The Bigger Plasma Chemistry Picture. Journal of Physical Chemistry C, 2018, 122, 8704-8723.	3.1	111
59	One-dimensional fluid model for an rf methane plasma of interest in deposition of diamond-like carbon layers. Journal of Applied Physics, 2001, 90, 570-579.	2.5	110
60	The Dominant Pathways for the Conversion of Methane into Oxygenates and Syngas in an Atmospheric Pressure Dielectric Barrier Discharge. Journal of Physical Chemistry C, 2015, 119, 22331-22350.	3.1	106
61	CO 2 conversion in a gliding arc plasma: Performance improvement based on chemical reaction modeling. Journal of CO2 Utilization, 2017, 17, 220-234.	6.8	106
62	White paper on the future of plasma science in environment, for gas conversion and agriculture. Plasma Processes and Polymers, 2019, 16, 1700238.	3.0	104
63	Anti-cancer capacity of plasma-treated PBS: effect of chemical composition on cancer cell cytotoxicity. Scientific Reports, 2017, 7, 16478.	3.3	103
64	Analysis of Short-Lived Reactive Species in Plasmaâ€“Airâ€“Water Systems: The Dos and the Do Nots. Analytical Chemistry, 2018, 90, 13151-13158.	6.5	103
65	Bacterial inactivation by plasma treated water enhanced by reactive nitrogen species. Scientific Reports, 2018, 8, 11268.	3.3	101
66	Plasma Technology for CO2 Conversion: A Personal Perspective on Prospects and Gaps. Frontiers in Energy Research, 2020, 8, .	2.3	101
67	Collisionalâ€“radiative model for the sputtered copper atoms and ions in a direct current argon glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1998, 53, 1679-1703.	2.9	100
68	Numerical study of Ar/CF4/N2 discharges in single- and dual-frequency capacitively coupled plasma reactors. Journal of Applied Physics, 2003, 94, 3748-3756.	2.5	99
69	Reactive molecular dynamics simulations of oxygen species in a liquid water layer of interest for plasma medicine. Journal Physics D: Applied Physics, 2014, 47, 025205.	2.8	97
70	Gliding arc plasma for CO2 conversion: Better insights by a combined experimental and modelling approach. Chemical Engineering Journal, 2017, 330, 11-25.	12.7	97
71	The influence of power and frequency on the filamentary behavior of a flowing DBDâ€"application to the splitting of CO₂. Plasma Sources Science and Technology, 2016, 25, 025013.	3.1	96
72	From the Birkelandâ€“Eyde process towards energy-efficient plasma-based NO_X synthesis: a techno-economic analysis. Energy and Environmental Science, 2021, 14, 2520-2534.	30.8	96

#	Article	IF	Citations
73	Monte Carlo simulation of an analytical glow discharge: motion of electrons, ions and fast neutrals in the cathode dark space. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1995, 50, 179-196.	2.9	95
74	Description of the thermalization process of the sputtered atoms in a glow discharge using a threeâ€dimensional Monte Carlo method. Journal of Applied Physics, 1995, 77, 1868-1874.	2.5	95
75	Electron anisotropic scattering in gases:â€ƒA formula for Monte Carlo simulations. Physical Review E, 2002, 65, 037402.	2.1	95
76	CO2â€“CH4 conversion and syngas formation at atmospheric pressure using a multi-electrode dielectric barrier discharge. Journal of CO2 Utilization, 2015, 9, 74-81.	6.8	93
77	Foundations of modelling of nonequilibrium low-temperature plasmas. Plasma Sources Science and Technology, 2018, 27, 023002.	3.1	92
78	Nitrogen Fixation with Water Vapor by Nonequilibrium Plasma: toward Sustainable Ammonia Production. ACS Sustainable Chemistry and Engineering, 2020, 8, 2996-3004.	6.7	92
79	CO₂conversion by plasma technology: insights from modeling the plasma chemistry and plasma reactor design. Plasma Sources Science and Technology, 2017, 26, 063001.	3.1	90
80	How bead size and dielectric constant affect the plasma behaviour in a packed bed plasma reactor: a modelling study. Plasma Sources Science and Technology, 2017, 26, 085007.	3.1	90
81	Calculation of gas heating in direct current argon glow discharges. Journal of Applied Physics, 2000, 87, 8334-8344.	2.5	89
82	Glow discharge optical emission spectrometry: moving towards reliable thin film analysisâ€“a short review. Journal of Analytical Atomic Spectrometry, 2003, 18, 670-679.	3.0	89
83	Numerical simulation of dual frequency etching reactors: Influence of the external process parameters on the plasma characteristics. Journal of Applied Physics, 2005, 98, 023308.	2.5	88
84	Insights in the Plasma-Assisted Growth of Carbon Nanotubes through Atomic Scale Simulations: Effect of Electric Field. Journal of the American Chemical Society, 2012, 134, 1256-1260.	13.7	88
85	Effect of head group and lipid tail oxidation in the cell membrane revealed through integrated simulations and experiments. Scientific Reports, 2017, 7, 5761.	3.3	88
86	Plasma-Based N₂ Fixation into NO_{<i>x</i>}: Insights from Modeling toward Optimum Yields and Energy Costs in a Gliding Arc Plasmatron. ACS Sustainable Chemistry and Engineering, 2020, 8, 9711-9720.	6.7	88
87	Modeling plasma-based CO₂conversion: crucial role of the dissociation cross section. Plasma Sources Science and Technology, 2016, 25, 055016.	3.1	87
88	Plasma modelling and numerical simulation. Journal Physics D: Applied Physics, 2009, 42, 190301.	2.8	86
89	Numerical investigation of particle formation mechanisms in silane discharges. Physical Review E, 2004, 69, 056409.	2.1	85
90	Gas Purification by Nonthermal Plasma: A Case Study of Ethylene. Environmental Science & Technology, 2013, 47, 6478-6485.	10.0	85

#	Article	IF	Citations
91	Role of sputtered Cu atoms and ions in a direct current glow discharge: Combined fluid and Monte Carlo model. Journal of Applied Physics, 1996, 79, 1279-1286.	2.5	83
92	Effects of adding hydrogen to an argon glow discharge: overview of relevant processes and some qualitative explanations. Journal of Analytical Atomic Spectrometry, 2000, 15, 441-449.	3.0	82
93	Spatially resolved ozone densities and gas temperatures in a time modulated RF driven atmospheric pressure plasma jet: an analysis of the production and destruction mechanisms. Journal Physics D: Applied Physics, 2013, 46, 205202.	2.8	82
94	Influence of the Material Dielectric Constant on Plasma Generation inside Catalyst Pores. Journal of Physical Chemistry C, 2016, 120, 25923-25934.	3.1	82
95	Influence of Cell Type and Culture Medium on Determining Cancer Selectivity of Cold Atmospheric Plasma Treatment. Cancers, 2019, 11, 1287.	3.7	81
96	Laser ablation of copper in different background gases: comparative study by numerical modeling and experiments. Journal of Analytical Atomic Spectrometry, 2006, 21, 384.	3.0	80
97	Numerical Study of the Size-Dependent Melting Mechanisms of Nickel Nanoclusters. Journal of Physical Chemistry C, 2009, 113, 2771-2776.	3.1	80
98	Plasma-Catalytic Ammonia Synthesis beyond the Equilibrium Limit. ACS Catalysis, 2020, 10, 6726-6734.	11.2	78
99	Two-Dimensional Model of a Direct Current Glow Discharge:Â Description of the Electrons, Argon Ions, and Fast Argon Atoms. Analytical Chemistry, 1996, 68, 2296-2303.	6.5	77
100	Role of Ar2+ and Ar2+ ions in a direct current argon glow discharge: A numerical description. Journal of Applied Physics, 1999, 86, 4124-4133.	2.5	77
101	Hybrid Monte Carloâ€"fluid modeling network for an argon/hydrogen direct current glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2002, 57, 1071-1099.	2.9	77
102	Particle-in-cell/Monte Carlo simulation of a capacitively coupled radio frequency Ar/CF4 discharge: Effect of gas composition. Journal of Applied Physics, 2003, 93, 2369-2379.	2.5	77
103	Atomic-scale simulations of reactive oxygen plasma species interacting with bacterial cell walls. New Journal of Physics, 2012, 14, 093043.	2.9	77
104	Cold Atmospheric Plasma-Treated PBS Eliminates Immunosuppressive Pancreatic Stellate Cells and Induces Immunogenic Cell Death of Pancreatic Cancer Cells. Cancers, 2019, 11, 1597.	3.7	77
105	Hampering Effect of Cholesterol on the Permeation of Reactive Oxygen Species through Phospholipids Bilayer: Possible Explanation for Plasma Cancer Selectivity. Scientific Reports, 2017, 7, 39526.	3.3	76
106	Routes to increase the conversion and the energy efficiency in the splitting of CO₂by a dielectric barrier discharge. Journal Physics D: Applied Physics, 2017, 50, 084004.	2.8	74
107	Influence of Gap Size and Dielectric Constant of the Packing Material on the Plasma Behaviour in a Packed Bed DBD Reactor: A Fluid Modelling Study. Plasma Processes and Polymers, 2017, 14, 1600129.	3.0	74
108	Double pulse laser ablation and laser induced breakdown spectroscopy: A modeling investigation. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 746-754.	2.9	73

#	Article	IF	Citations
109	A comparative study for the inactivation of multidrug resistance bacteria using dielectric barrier discharge and nano-second pulsed plasma. Scientific Reports, 2015, 5, 13849.	3.3	73
110	Thermal conductivity of titanium nitride/titanium aluminum nitride multilayer coatings deposited by lateral rotating cathode arc. Thin Solid Films, 2015, 578, 133-138.	1.8	72
111	Modeling of plasma-based CO₂conversion: lumping of the vibrational levels. Plasma Sources Science and Technology, 2016, 25, 045022.	3.1	72
112	The Quest for Valueâ€Added Products from Carbon Dioxide and Water in a Dielectric Barrier Discharge: A Chemical Kinetics Study. ChemSusChem, 2017, 10, 409-424.	6.8	72
113	The role of fast argon ions and atoms in the ionization of argon in a directâ€current glow discharge: A mathematical simulation. Journal of Applied Physics, 1995, 78, 6427-6431.	2.5	71
114	How do the barrier thickness and dielectric material influence the filamentary mode and CO₂conversion in a flowing DBD?. Plasma Sources Science and Technology, 2016, 25, 045016.	3.1	71
115	Mechanism and comparison of needle-type non-thermal direct and indirect atmospheric pressure plasma jets on the degradation of dyes. Scientific Reports, 2016, 6, 34419.	3.3	71
116	Plasma based CO₂ and CH₄ conversion: A modeling perspective. Plasma Processes and Polymers, 2017, 14, 1600070.	3.0	71
117	Influence of N2 concentration in a CH4/N2 dielectric barrier discharge used for CH4 conversion into H2. International Journal of Hydrogen Energy, 2013, 38, 16098-16120.	7.1	70
118	CO₂ Hydrogenation in a Dielectric Barrier Discharge Plasma Revealed. Journal of Physical Chemistry C, 2016, 120, 25210-25224.	3.1	70
119	Fundamental aspects and applications of glow discharge spectrometric techniques. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1998, 53, 1-42.	2.9	69
120	Interaction of O and OH radicals with a simple model system for lipids in the skin barrier: a reactive molecular dynamics investigation for plasma medicine. Journal Physics D: Applied Physics, 2013, 46, 395201.	2.8	69
121	Reduction of Human Glioblastoma Spheroids Using Cold Atmospheric Plasma: The Combined Effect of Short- and Long-Lived Reactive Species. Cancers, 2018, 10, 394.	3.7	69
122	The afterglow mystery of pulsed glow discharges and the role of dissociative electronâ€"ion recombination. Journal of Analytical Atomic Spectrometry, 2007, 22, 502-512.	3.0	68
123	An Investigation into the Dominant Reactions for Ethylene Destruction in Nonâ€Thermal Atmospheric Plasmas. Plasma Processes and Polymers, 2012, 9, 994-1000.	3.0	68
124	NO_x production in a rotating gliding arc plasma: potential avenue for sustainable nitrogen fixation. Green Chemistry, 2021, 23, 1748-1757.	9.0	68
125	Chemical fingerprints of cold physical plasmas â€" an experimental and computational study using cysteine as tracer compound. Scientific Reports, 2018, 8, 7736.	3.3	67
126	Defect Healing and Enhanced Nucleation of Carbon Nanotubes by Low-Energy Ion Bombardment. Physical Review Letters, 2013, 110, 065501.	7.8	65

#	Article	IF	Citations
127	CO₂conversion in a gliding arc plasma: 1D cylindrical discharge model. Plasma Sources Science and Technology, 2016, 25, 065012.	3.1	65
128	The ion- and atom-induced secondary electron emission yield: numerical study for the effect of clean and dirty cathode surfaces. Plasma Sources Science and Technology, 2002, 11, 27-36.	3.1	64
129	Dry Reforming of Methane in a Gliding Arc Plasmatron: Towards a Better Understanding of the Plasma Chemistry. ChemSusChem, 2017, 10, 4025-4036.	6.8	64
130	Low-Temperature Plasma for Biology, Hygiene, and Medicine: Perspective and Roadmap. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 127-157.	3.7	64
131	Hybrid Monte Carlo â€" Fluid model for studying the effects of nitrogen addition to argon glow discharges. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 126-140.	2.9	63
132	Plasma-enabled catalyst-free conversion of ethanol to hydrogen gas and carbon dots near room temperature. Chemical Engineering Journal, 2020, 382, 122745.	12.7	63
133	Nitrogen fixation in an electrode-free microwave plasma. Joule, 2021, 5, 3006-3030.	24.0	63
134	Two-Dimensional Model of a Direct Current Glow Discharge:Â Description of the Argon Metastable Atoms, Sputtered Atoms, and Ions. Analytical Chemistry, 1996, 68, 2676-2685.	6.5	62
135	Atomic Spectroscopy. Analytical Chemistry, 2008, 80, 4317-4347.	6.5	62
136	Burning questions of plasma catalysis: Answers by modeling. Catalysis Today, 2019, 337, 3-14.	4.4	62
137	Effects of oxygen addition to argon glow discharges: A hybrid Monte Carlo-fluid modeling investigation. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 1266-1279.	2.9	61
138	Atomic scale simulation of carbon nanotube nucleation from hydrocarbon precursors. Nature Communications, 2015, 6, 10306.	12.8	61
139	Plasma-Based CH₄ Conversion into Higher Hydrocarbons and H₂: Modeling to Reveal the Reaction Mechanisms of Different Plasma Sources. Journal of Physical Chemistry C, 2020, 124, 7016-7030.	3.1	61
140	Formation of microdischarges inside a mesoporous catalyst in dielectric barrier discharge plasmas. Plasma Sources Science and Technology, 2017, 26, 054002.	3.1	60
141	Combining experimental and modelling approaches to study the sources of reactive species induced in water by the COST RF plasma jet. Physical Chemistry Chemical Physics, 2018, 20, 2797-2808.	2.8	59
142	Multiplicity and contiguity of ablation mechanisms in laser-assisted analytical micro-sampling. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2006, 61, 421-432.	2.9	58
143	Investigating the plasma chemistry for the synthesis of carbon nanotubes/nanofibres in an inductively coupled plasma enhanced CVD system: the effect of different gas mixtures. Journal Physics D: Applied Physics, 2010, 43, 205201.	2.8	58
144	Reaction pathways of biomedically active species in an Ar plasma jet. Plasma Sources Science and Technology, 2014, 23, 035015.	3.1	58

#	Article	IF	Citations
145	Towards Green Ammonia Synthesis through Plasmaâ€Driven Nitrogen Oxidation and Catalytic Reduction. Angewandte Chemie - International Edition, 2020, 59, 23825-23829.	13.8	58
146	A 2D model for a gliding arc discharge. Plasma Sources Science and Technology, 2015, 24, 015025.	3.1	57
147	Cold atmospheric plasma treatment of melanoma and glioblastoma cancer cells. Plasma Processes and Polymers, 2016, 13, 1195-1205.	3.0	57
148	DFT study of Ni-catalyzed plasma dry reforming of methane. Applied Catalysis B: Environmental, 2017, 205, 605-614.	20.2	57
149	Molecular dynamics simulations for the growth of diamond-like carbon films from low kinetic energy species. Diamond and Related Materials, 2004, 13, 1873-1881.	3.9	56
150	Propagation of a plasma streamer in catalyst pores. Plasma Sources Science and Technology, 2018, 27, 035009.	3.1	56
151	How process parameters and packing materials tune chemical equilibrium and kinetics in plasma-based CO2 conversion. Chemical Engineering Journal, 2019, 372, 1253-1264.	12.7	56
152	Modifying the Tumour Microenvironment: Challenges and Future Perspectives for Anticancer Plasma Treatments. Cancers, 2019, 11, 1920.	3.7	56
153	Reactivity and stability of plasma-generated oxygen and nitrogen species in buffered water solution: a computational study. Physical Chemistry Chemical Physics, 2019, 21, 12881-12894.	2.8	55
154	Computer modelling of magnetron discharges. Journal Physics D: Applied Physics, 2009, 42, 194018.	2.8	54
155	A Comprehensive Chemical Model for the Splitting of CO₂ in Nonâ€Equilibrium Plasmas. Plasma Processes and Polymers, 2017, 14, 1600155.	3.0	54
156	Hybrid Modeling of a Capacitively Coupled Radio Frequency Glow Discharge in Argon: Combined Monte Carlo and Fluid Model. Japanese Journal of Applied Physics, 1999, 38, 4404-4415.	1.5	52
157	Plasma Species Interacting with Nickel Surfaces: Toward an Atomic Scale Understanding of Plasma-Catalysis. Journal of Physical Chemistry C, 2012, 116, 20958-20965.	3.1	52
158	The role of mass removal mechanisms in the onset of ns-laser induced plasma formation. Journal of Applied Physics, 2013, 114, 023301.	2.5	52
159	Appearance of a conductive carbonaceous coating in a CO₂dielectric barrier discharge and its influence on the electrical properties and the conversion efficiency. Plasma Sources Science and Technology, 2016, 25, 015023.	3.1	52
160	Plasma-Catalytic Ammonia Synthesis in a DBD Plasma: Role of Microdischarges and Their Afterglows. Journal of Physical Chemistry C, 2020, 124, 22871-22883.	3.1	52
161	Plasma-catalytic dry reforming of methane: Screening of catalytic materials in a coaxial packed-bed DBD reactor. Chemical Engineering Journal, 2020, 397, 125519.	12.7	52
162	Pulse shape influence on the atmospheric barrier discharge. Applied Physics Letters, 2010, 96, .	3.3	51

#	Article	IF	Citations
163	Combining molecular dynamics with Monte Carlo simulations: implementations and applications. Theoretical Chemistry Accounts, 2013, 132, 1.	1.4	51
164	Effect of plasma-induced surface charging on catalytic processes: application to CO₂activation. Plasma Sources Science and Technology, 2018, 27, 024001.	3.1	51
165	Plasma diagnostics of an analytical Grimm-type glow discharge in argon and in neon: Langmuir probe and optical emission spectrometry measurements. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1995, 50, 1337-1349.	2.9	50
166	Modeling of glow discharge optical emission spectrometry: Calculation of the argon atomic optical emission spectrum. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1998, 53, 1517-1526.	2.9	50
167	New pathways for nanoparticle formation in acetylene dusty plasmas: a modelling investigation and comparison with experiments. Journal Physics D: Applied Physics, 2008, 41, 225201.	2.8	50
168	Atmospheric pressure glow discharge for CO2 conversion: Model-based exploration of the optimum reactor configuration. Chemical Engineering Journal, 2019, 362, 830-841.	12.7	50
169	Plasma-Catalytic Methanol Synthesis from CO₂ Hydrogenation over a Supported Cu Cluster Catalyst: Insights into the Reaction Mechanism. ACS Catalysis, 2022, 12, 1326-1337.	11.2	50
170	Modeling of a millisecond pulsed glow discharge: Investigation of the afterpeak. Journal of Analytical Atomic Spectrometry, 2003, 18, 533.	3.0	49
171	In-Situ Chemical Trapping of Oxygen in the Splitting of Carbon Dioxide by Plasma. Plasma Processes and Polymers, 2014, 11, 985-992.	3.0	49
172	Numerical analysis of the effect of nitrogen and oxygen admixtures on the chemistry of an argon plasma jet operating at atmospheric pressure. New Journal of Physics, 2015, 17, 033003.	2.9	49
173	Relative sensitivity factors in glow discharge mass spectrometry: the role of charge transfer ionization. Journal of Analytical Atomic Spectrometry, 1996, 11, 841.	3.0	48
174	Nanosecond laser ablation of Cu: modeling of the expansion in He background gas, and comparison with expansion in vacuum. Journal of Analytical Atomic Spectrometry, 2004, 19, 1169-1176.	3.0	48
175	Reactive Molecular Dynamics Simulations for a Better Insight in Plasma Medicine. Plasma Processes and Polymers, 2014, 11, 1156-1168.	3.0	48
176	Nanosecond Pulsed Discharge for CO₂ Conversion: Kinetic Modeling To Elucidate the Chemistry and Improve the Performance. Journal of Physical Chemistry C, 2019, 123, 12104-12116.	3.1	48
177	Hydrogen addition to an argon glow discharge: a numerical simulation. Journal of Analytical Atomic Spectrometry, 2002, 17, 768-779.	3.0	47
178	Advances in non-equilibrium $$hbox {CO}_2$$ plasma kinetics: a theoretical and experimental review. European Physical Journal D, 2021, 75, 1.	1.3	47
179	Calculation of crater profiles on a flat cathode in a direct current glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1997, 52, 765-777.	2.9	46
180	Effect of ambient pressure on laser ablation and plume expansion dynamics: A numerical simulation. Journal of Applied Physics, 2006, 99, 063304.	2.5	46

#	Article	IF	Citations
181	Structure and Function of p53-DNA Complexes with Inactivation and Rescue Mutations: A Molecular Dynamics Simulation Study. PLoS ONE, 2015, 10, e0134638.	2.5	46
182	CO₂ Conversion in a Gliding Arc Plasmatron: Multidimensional Modeling for Improved Efficiency. Journal of Physical Chemistry C, 2017, 121, 24470-24479.	3.1	46
183	Synergistic Effects of Melittin and Plasma Treatment: A Promising Approach for Cancer Therapy. Cancers, 2019, 11, 1109.	3.7	46
184	Comprehensive description of a Grimm-type glow discharge source used for optical emission spectrometry: A mathematical simulation. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1998, 53, 437-462.	2.9	45
185	Study of the Ar metastable atom population in a hollow cathode discharge by means of a hybrid model and spectrometric measurements. Journal of Applied Physics, 2005, 97, 123305.	2.5	45
186	Comparison of electrostatic and electromagnetic simulations for very high frequency plasmas. Physics of Plasmas, 2010, 17, .	1.9	45
187	Atomic Spectroscopy. Analytical Chemistry, 2013, 85, 670-704.	6.5	45
188	Evaluation of non-thermal effect of microwave radiation and its mode of action in bacterial cell inactivation. Scientific Reports, 2021, 11, 14003.	3.3	45
189	Plasma Catalysis for Ammonia Synthesis: A Microkinetic Modeling Study on the Contributions of Eleyâ€“Rideal Reactions. ACS Sustainable Chemistry and Engineering, 2021, 9, 13151-13163.	6.7	45
190	The glow discharge: an exciting plasma!. Journal of Analytical Atomic Spectrometry, 1999, 14, 1375-1384.	3.0	44
191	Role of laser-induced melting and vaporization of metals during ICP-MS and LIBS analysis, investigated with computer simulations and experiments. Journal of Analytical Atomic Spectrometry, 2006, 21, 910.	3.0	44
192	Simulation and Experimental Studies on Plasma Temperature, Flow Velocity, and Injector Diameter Effects for an Inductively Coupled Plasma. Analytical Chemistry, 2011, 83, 9260-9266.	6.5	44
193	Two-dimensional particle-in cell/Monte Carlo simulations of a packed-bed dielectric barrier discharge in air at atmospheric pressure. New Journal of Physics, 2015, 17, 083056.	2.9	44
194	Dielectric barrier discharges used for the conversion of greenhouse gases: modeling the plasma chemistry by fluid simulations. Plasma Sources Science and Technology, 2011, 20, 024008.	3.1	43
195	Numerical analysis of the NO and O generation mechanism in a needle-type plasma jet. New Journal of Physics, 2014, 16, 063054.	2.9	43
196	Inactivation of the Endotoxic Biomolecule Lipid A by Oxygen Plasma Species: A Reactive Molecular Dynamics Study. Plasma Processes and Polymers, 2015, 12, 162-171.	3.0	43
197	A 3D model of a reverse vortex flow gliding arc reactor. Plasma Sources Science and Technology, 2016, 25, 035014.	3.1	43
198	Plasma-Based CO₂ Conversion: To Quench or Not to Quench?. Journal of Physical Chemistry C, 2020, 124, 18401-18415.	3.1	43

#	Article	IF	Citations
199	Computer simulations of sample chambers for laser ablationâ€“inductively coupled plasma spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 155-168.	2.9	42
200	QDB: a new database of plasma chemistries and reactions. Plasma Sources Science and Technology, 2017, 26, 055014.	3.1	42
201	Harvesting Renewable Energy for Carbon Dioxide Catalysis. Energy Technology, 2017, 5, 796-811.	3.8	42
202	Atomic scale simulation of H₂O₂permeation through aquaporin: toward the understanding of plasma cancer treatment. Journal Physics D: Applied Physics, 2018, 51, 125401.	2.8	42
203	Investigation of plasmaâ€induced chemistry in organic solutions for enhanced electrospun PLA nanofibers. Plasma Processes and Polymers, 2018, 15, 1700226.	3.0	42
204	Three-dimensional density profiles of sputtered atoms and ions in a direct current glow discharge: experimental study and comparison with calculations. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1997, 52, 205-218.	2.9	41
205	Three-dimensional density profiles of argon metastable atoms in a direct current glow discharge: experimental study and comparison with calculations. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1997, 52, 219-229.	2.9	41
206	The influence of impurities on the performance of the dielectric barrier discharge. Applied Physics Letters, 2010, 96, .	3.3	41
207	Carbon dioxide dissociation in a microwave plasma reactor operating in a wide pressure range and different gas inlet configurations. Journal of CO2 Utilization, 2018, 24, 386-397.	6.8	41
208	Removal of alachlor in water by non-thermal plasma: Reactive species and pathways in batch and continuous process. Water Research, 2019, 161, 549-559.	11.3	41
209	Oxidative damage to hyaluronanâ€“CD44 interactions as an underlying mechanism of action of oxidative stress-inducing cancer therapy. Redox Biology, 2021, 43, 101968.	9.0	41
210	Sustainable NO_{<i>x</i>} production from air in pulsed plasma: elucidating the chemistry behind the low energy consumption. Green Chemistry, 2022, 24, 916-929.	9.0	41
211	The importance of an external circuit in a particle-in-cell/Monte Carlo collisions model for a direct current planar magnetron. Journal of Applied Physics, 2008, 103, .	2.5	40
212	Sputter-deposited Mgâ€“Alâ€“O thin films: linking molecular dynamics simulations to experiments. Journal Physics D: Applied Physics, 2009, 42, 065107.	2.8	40
213	Risk Assessment of kINPen Plasma Treatment of Four Human Pancreatic Cancer Cell Lines with Respect to Metastasis. Cancers, 2019, 11, 1237.	3.7	40
214	Altering Conversion and Product Selectivity of Dry Reforming of Methane in a Dielectric Barrier Discharge by Changing the Dielectric Packing Material. Catalysts, 2019, 9, 51.	3.5	40
215	Simulation of an Ar/Cl₂inductively coupled plasma: study of the effect of bias, power and pressure and comparison with experiments. Journal Physics D: Applied Physics, 2008, 41, 065207.	2.8	39
216	The Effect of O₂ in a Humid O₂/N₂/NO_{<i>x</i>} Gas Mixture on NO_{<i>x</i>} and N₂O Remediation by an Atmospheric Pressure Dielectric Barrier Discharge. Plasma Processes and Polymers, 2012, 9, 652-689.	3.0	39

#	Article	IF	Citations
217	Computer simulations of plasmaâ€“biomolecule and plasmaâ€“tissue interactions for a better insight in plasma medicine. Journal Physics D: Applied Physics, 2014, 47, 293001.	2.8	39
218	Similarities and differences between gliding glow and gliding arc discharges. Plasma Sources Science and Technology, 2015, 24, 065023.	3.1	39
219	DBD in burst mode: solution for more efficient CO₂conversion?. Plasma Sources Science and Technology, 2016, 25, 055005.	3.1	39
220	Calculation of the gas flow and its effect on the plasma characteristics for a modified Grimm-type glow discharge cell. Journal of Analytical Atomic Spectrometry, 2002, 17, 1076-1082.	3.0	38
221	Influence of electron recapture by the cathode upon the discharge characteristics in dc planar magnetrons. Physical Review E, 2005, 72, 056402.	2.1	38
222	Plasma characteristics of an Ar/CF4/N2discharge in an asymmetric dual frequency reactor: numerical investigation by a PIC/MC model. Plasma Sources Science and Technology, 2006, 15, 368-377.	3.1	38
223	Modelling of nanoparticle coagulation and transport dynamics in dusty silane discharges. New Journal of Physics, 2006, 8, 178-178.	2.9	38
224	Calculation of rate constants for asymmetric charge transfer, and their effect on relative sensitivity factors in glow discharge mass spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 325-336.	2.9	38
225	Predicted Influence of Plasma Activation on Nonoxidative Coupling of Methane on Transition Metal Catalysts. ACS Sustainable Chemistry and Engineering, 2020, 8, 6043-6054.	6.7	38
226	Hybrid model for a cylindrical hollow cathode glow discharge and comparison with experiments. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2002, 57, 311-326.	2.9	37
227	Computer simulations of a dielectric barrier discharge used for analytical spectrometry. Analytical and Bioanalytical Chemistry, 2007, 388, 1583-1594.	3.7	37
228	Atomic-scale insight into the interactions between hydroxyl radicals and DNA in solution using the ReaxFF reactive force field. New Journal of Physics, 2015, 17, 103005.	2.9	37
229	Effect of bulk electric field reversal on the bounce resonance heating in dual-frequency capacitively coupled electronegative plasmas. Applied Physics Letters, 2012, 101, .	3.3	36
230	Modeling of CO₂plasma: effect of uncertainties in the plasma chemistry. Plasma Sources Science and Technology, 2017, 26, 115002.	3.1	36
231	Oxidative Stress-Inducing Anticancer Therapies: Taking a Closer Look at Their Immunomodulating Effects. Antioxidants, 2020, 9, 1188.	5.1	36
232	Zero-dimensional modeling of unpacked and packed bed dielectric barrier discharges: the role of vibrational kinetics in ammonia synthesis. Plasma Sources Science and Technology, 2020, 29, 045020.	3.1	36
233	Comparison of calculated and measured optical emission intensities in a direct current argonâ€“copper glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2000, 55, 1465-1479.	2.9	35
234	Modeling of a microsecond pulsed glow discharge: behavior of the argon excited levels and of the sputtered copper atoms and ions. Journal of Analytical Atomic Spectrometry, 2001, 16, 239-249.	3.0	35

#	Article	IF	Citations
235	Comparison of a one-dimensional particle-in-cellâ€“Monte Carlo model and a one-dimensional fluid model for a CH[sub 4]/H[sub 2] capacitively coupled radio frequency discharge. Journal of Applied Physics, 2002, 91, 6296.	2.5	35
236	Role of the thermophoretic force on the transport of nanoparticles in dusty silane plasmas. Physical Review E, 2005, 71, 066405.	2.1	35
237	Molecular Dynamics Simulations of the Sticking and Etch Behavior of Various Growth Species of (Ultra)Nanocrystalline Diamond Films. Chemical Vapor Deposition, 2008, 14, 213-223.	1.3	35
238	Investigation of etching and deposition processes of Cl₂/O₂/Ar inductively coupled plasmas on silicon by means of plasmaâ€“surface simulations and experiments. Journal Physics D: Applied Physics, 2009, 42, 095204.	2.8	35
239	Compositional effects on the growth of Mg(M)O films. Journal of Applied Physics, 2010, 107, 034902.	2.5	35
240	Numerical study of the plasma chemistry in inductively coupled SF₆ and SF₆/Ar plasmas used for deep silicon etching applications. Journal Physics D: Applied Physics, 2011, 44, 435202.	2.8	35
241	Multi-element model for the simulation of inductively coupled plasmas: Effects of helium addition to the central gas stream. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2011, 66, 421-431.	2.9	35
242	Temperature influence on the reactivity of plasma species on a nickel catalyst surface: An atomic scale study. Catalysis Today, 2013, 211, 131-136.	4.4	35
243	Interactions of plasma species on nickel catalysts: A reactive molecular dynamics study on the influence of temperature and surface structure. Applied Catalysis B: Environmental, 2014, 154-155, 1-8.	20.2	35
244	Importance of surface charging during plasma streamer propagation in catalyst pores. Plasma Sources Science and Technology, 2018, 27, 065009.	3.1	35
245	Plasma Catalysis for CO₂ Hydrogenation: Unlocking New Pathways toward CH₃OH. Journal of Physical Chemistry C, 2020, 124, 25859-25872.	3.1	35
246	Auranofin and Cold Atmospheric Plasma Synergize to Trigger Distinct Cell Death Mechanisms and Immunogenic Responses in Glioblastoma. Cells, 2021, 10, 2936.	4.1	35
247	Effect of small amounts of hydrogen added to argon glow discharges: Hybrid Monte Carloâ€“fluid model. Physical Review E, 2002, 65, 056402.	2.1	34
248	Effect of hydrogen on the growth of thin hydrogenated amorphous carbon films from thermal energy radicals. Applied Physics Letters, 2006, 88, 141922.	3.3	34
249	PIC â€“ MCC Numerical Simulation of a DC Planar Magnetron. Plasma Processes and Polymers, 2006, 3, 127-134.	3.0	34
250	Laser-induced plasmas from the ablation of metallic targets: The problem of the onset temperature, and insights on the expansion dynamics. Journal of Applied Physics, 2007, 101, 083301.	2.5	34
251	Design analysis of a laser ablation cell for inductively coupled plasma mass spectrometry by numerical simulation. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 257-270.	2.9	34
252	Computer modelling of the plasma chemistry and plasma-based growth mechanisms for nanostructured materials. Journal Physics D: Applied Physics, 2011, 44, 174030.	2.8	34

#	Article	IF	Citations
253	Space charge corrected electron emission from an aluminum surface under non-equilibrium conditions. Journal of Applied Physics, 2012, 111, .	2.5	34
254	Revealing the arc dynamics in a gliding arc plasmatron: a better insight to improve CO₂conversion. Plasma Sources Science and Technology, 2017, 26, 125002.	3.1	34
255	Elucidation of Plasma-induced Chemical Modifications on Glutathione and Glutathione Disulphide. Scientific Reports, 2017, 7, 13828.	3.3	34
256	Understanding Microwave Surfaceâ€Wave Sustained Plasmas at Intermediate Pressure by 2D Modeling and Experiments. Plasma Processes and Polymers, 2017, 14, 1600185.	3.0	34
257	Novel power-to-syngas concept for plasma catalytic reforming coupled with water electrolysis. Chemical Engineering Journal, 2018, 353, 297-304.	12.7	34
258	Power Pulsing To Maximize Vibrational Excitation Efficiency in N₂ Microwave Plasma: A Combined Experimental and Computational Study. Journal of Physical Chemistry C, 2020, 124, 1765-1779.	3.1	34
259	Comprehensive modelling network for dc glow discharges in argon. Plasma Sources Science and Technology, 1999, 8, 210-229.	3.1	33
260	Investigation of Growth Mechanisms of Clusters in a Silane Discharge With the Use of a Fluid Model. IEEE Transactions on Plasma Science, 2004, 32, 691-698.	1.3	33
261	Grain size tuning of nanocrystalline chemical vapor deposited diamond by continuous electrical bias growth: Experimental and theoretical study. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1675-1682.	1.8	33
262	New Mechanism for Oxidation of Native Silicon Oxide. Journal of Physical Chemistry C, 2013, 117, 9819-9825.	3.1	33
263	Formation of single layer graphene on nickel under far-from-equilibrium high flux conditions. Nanoscale, 2013, 5, 7250.	5.6	33
264	Development of a ReaxFF reactive force field for intrinsic point defects in titanium dioxide. Computational Materials Science, 2014, 95, 579-591.	3.0	33
265	Coupled gas flow-plasma model for a gliding arc: investigations of the back-breakdown phenomenon and its effect on the gliding arc characteristics. Plasma Sources Science and Technology, 2017, 26, 015003.	3.1	33
266	Plasma-based multi-reforming for Gas-To-Liquid: tuning the plasma chemistry towards methanol. Scientific Reports, 2018, 8, 15929.	3.3	33
267	Improving the Energy Efficiency of CO₂ Conversion in Nonequilibrium Plasmas through Pulsing. Journal of Physical Chemistry C, 2019, 123, 17650-17665.	3.1	33
268	Oxidation destabilizes toxic amyloid beta peptide aggregation. Scientific Reports, 2019, 9, 5476.	3.3	33
269	Activation of CO₂ on Copper Surfaces: The Synergy between Electric Field, Surface Morphology, and Excess Electrons. Journal of Physical Chemistry C, 2020, 124, 6747-6755.	3.1	33
270	CO₂ and CH₄ conversion in â€œrealâ€• gas mixtures in a gliding arc plasmatron: how do N₂ and O₂ affect the performance?. Green Chemistry, 2020, 22, 1366-1377.	9.0	33

#	Article	IF	Citations
271	A one-dimensional fluid model for an acetylene RF discharge: a study of the plasma chemistry. IEEE Transactions on Plasma Science, 2003, 31, 659-664.	1.3	32
272	Atomic Spectroscopy. Analytical Chemistry, 2004, 76, 3313-3336.	6.5	32
273	Detailed numerical investigation of a DC sputter magnetron. IEEE Transactions on Plasma Science, 2006, 34, 886-894.	1.3	32
274	Computer Modeling of Plasmas and Plasmaâ€Surface Interactions. Plasma Processes and Polymers, 2009, 6, 295-307.	3.0	32
275	Plasmaâ€based liquefaction of methane: The road from hydrogen production to direct methane liquefaction. Plasma Processes and Polymers, 2017, 14, 1600115.	3.0	32
276	Atomic scale understanding of the permeation of plasma species across native and oxidized membranes. Journal Physics D: Applied Physics, 2018, 51, 365203.	2.8	32
277	Transport of Reactive Oxygen and Nitrogen Species across Aquaporin: A Molecular Level Picture. Oxidative Medicine and Cellular Longevity, 2019, 2019, 1-11.	4.0	32
278	Selective oxidation of CH4 to CH3OH through plasma catalysis: Insights from catalyst characterization and chemical kinetics modelling. Applied Catalysis B: Environmental, 2021, 296, 120384.	20.2	32
279	Similarities and differences between direct current and radio-frequency glow discharges: a mathematical simulation. Journal of Analytical Atomic Spectrometry, 2000, 15, 1191-1201.	3.0	31
280	One-dimensional modelling of a capacitively coupled rf plasma in silane/helium, including small concentrations of O2and N2. Journal Physics D: Applied Physics, 2003, 36, 1826-1833.	2.8	31
281	Fluid modelling of an atmospheric pressure dielectric barrier discharge in cylindrical geometry. Journal Physics D: Applied Physics, 2009, 42, 205206.	2.8	31
282	Microscopic mechanisms of vertical graphene and carbon nanotube cap nucleation from hydrocarbon growth precursors. Nanoscale, 2014, 6, 9206-9214.	5.6	31
283	The effect of reactive oxygen and nitrogen species on the structure of cytoglobin: A potential tumor suppressor. Redox Biology, 2018, 19, 1-10.	9.0	31
284	Numerical Models of the Planar Magnetron Glow Discharges. Contributions To Plasma Physics, 2004, 44, 582-588.	1.1	30
285	Calculation of gas heating in a dc sputter magnetron. Journal of Applied Physics, 2008, 104, .	2.5	30
286	Space charge limited electron emission from a Cu surface under ultrashort pulsed laser irradiation. Applied Physics Letters, 2010, 96, .	3.3	30
287	Structural modification of the skin barrier by OH radicals: a reactive molecular dynamics study for plasma medicine. Journal Physics D: Applied Physics, 2015, 48, 155202.	2.8	30
288	Particle transport through an inductively coupled plasma torch: elemental droplet evaporation. Journal of Analytical Atomic Spectrometry, 2016, 31, 631-641.	3.0	30

#	Article	IF	Citations
289	Applications of the COST Plasma Jet: More than a Reference Standard. Plasma, 2019, 2, 316-327.	1.8	30
290	Characterization of a nitrogen gliding arc plasmatron using optical emission spectroscopy and high-speed camera. Journal Physics D: Applied Physics, 2019, 52, 065201.	2.8	30
291	Dual-vortex plasmatron: A novel plasma source for CO2 conversion. Journal of CO2 Utilization, 2020, 39, 101152.	6.8	30
292	On the kinetics and equilibria of plasma-based dry reforming of methane. Chemical Engineering Journal, 2021, 405, 126630.	12.7	30
293	Dry reforming of methane in an atmospheric pressure glow discharge: Confining the plasma to expand the performance. Journal of CO2 Utilization, 2022, 56, 101869.	6.8	30
294	Electron energy distribution function in capacitively coupled RF discharges: difference between electropositive Ar and electronegative SiH4discharges. Plasma Sources Science and Technology, 2000, 9, 583-591.	3.1	29
295	Modeling of the formation and transport of nanoparticles in silane plasmas. Physical Review E, 2004, 70, 056407.	2.1	29
296	Plasma diagnostics and numerical simulations: insight into the heart of analytical glow discharges. Journal of Analytical Atomic Spectrometry, 2007, 22, 13-40.	3.0	29
297	Particle-in-cell/Monte Carlo collisions treatment of an Ar/O2magnetron discharge used for the reactive sputter deposition of TiOxfilms. New Journal of Physics, 2009, 11, 103010.	2.9	29
298	Modeling Cl₂/O₂/Ar inductively coupled plasmas used for silicon etching: effects of SiO₂chamber wall coating. Plasma Sources Science and Technology, 2011, 20, 045012.	3.1	29
299	Understanding polyethylene surface functionalization by an atmospheric He/O₂plasma through combined experiments and simulations. Journal Physics D: Applied Physics, 2014, 47, 224007.	2.8	29
300	Thermodynamics at the nanoscale: phase diagrams of nickelâ€“carbon nanoclusters and equilibrium constants for phase transitions. Nanoscale, 2014, 6, 11981-11987.	5.6	29
301	A DFT study of H-dissolution into the bulk of a crystalline Ni(111) surface: a chemical identifier for the reaction kinetics. Physical Chemistry Chemical Physics, 2017, 19, 19150-19158.	2.8	29
302	Sustainable gas conversion by gliding arc plasmas: a new modelling approach for reactor design improvement. Sustainable Energy and Fuels, 2021, 5, 1786-1800.	4.9	29
303	Plasma-Catalytic Ammonia Reforming of Methane over Cu-Based Catalysts for the Production of HCN and H₂ at Reduced Temperature. ACS Catalysis, 2021, 11, 1765-1773.	11.2	29
304	Role of the fast Ar atoms, Ar+ ions, and metastable Ar atoms in a hollow cathode glow discharge: Study by a hybrid model. Journal of Applied Physics, 2003, 94, 2212-2222.	2.5	28
305	Study of the nucleation and growth of TiO2 and ZnO thin films by means of molecular dynamics simulations. Journal of Crystal Growth, 2009, 311, 4034-4043.	1.5	28
306	On the regime transitions during the formation of an atmospheric pressure dielectric barrier glow discharge. Journal Physics D: Applied Physics, 2009, 42, 122002.	2.8	28

#	Article	IF	Citations
307	Optimization of operating parameters for inductively coupled plasma mass spectrometry: A computational study. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2012, 76, 56-64.	2.9	28
308	Diffusion- and velocity-driven spatial separation of analytes from single droplets entering an ICP off-axis. Journal of Analytical Atomic Spectrometry, 2014, 29, 262-271.	3.0	28
309	Dimension reduction of non-equilibrium plasma kinetic models using principal component analysis. Plasma Sources Science and Technology, 2015, 24, 025004.	3.1	28
310	Inductively coupled plasma-mass spectrometry: insights through computer modeling. Journal of Analytical Atomic Spectrometry, 2017, 32, 233-261.	3.0	28
311	Supersonic Microwave Plasma: Potential and Limitations for Energy-Efficient CO₂ Conversion. Journal of Physical Chemistry C, 2018, 122, 25869-25881.	3.1	28
312	How membrane lipids influence plasma delivery of reactive oxygen species into cells and subsequent DNA damage: an experimental and computational study. Physical Chemistry Chemical Physics, 2019, 21, 19327-19341.	2.8	28
313	Reaction of chloride anion with atomic oxygen in aqueous solutions: can cold plasma help in chemistry research?. Physical Chemistry Chemical Physics, 2019, 21, 4117-4121.	2.8	28
314	Combining CO2 conversion and N2 fixation in a gliding arc plasmatron. Journal of CO2 Utilization, 2019, 33, 121-130.	6.8	28
315	Cold Atmospheric Plasma Increases Temozolomide Sensitivity of Three-Dimensional Glioblastoma Spheroids via Oxidative Stress-Mediated DNA Damage. Cancers, 2021, 13, 1780.	3.7	28
316	Foundations of plasma catalysis for environmental applications. Plasma Sources Science and Technology, 2022, 31, 053002.	3.1	28
317	Comparison of argon and neon as discharge gases in a direct-current glow discharge a mathematical simulation. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1997, 52, 553-565.	2.9	27
318	New developments and applications in GDMS. Fresenius' Journal of Analytical Chemistry, 1999, 364, 367-375.	1.5	27
319	Hybrid modeling network for a heliumâ€“argonâ€“copper hollow cathode discharge used for laser applications. Journal of Applied Physics, 2002, 92, 6408-6422.	2.5	27
320	Modeling of a capacitively coupled radio-frequency methane plasma: Comparison between a one-dimensional and a two-dimensional fluid model. Journal of Applied Physics, 2002, 92, 2290-2295.	2.5	27
321	Hollow cathode glow discharge in He: Monte Carloâ€“Fluid model combined with a transport model for the metastable atoms. Journal of Applied Physics, 2003, 93, 47-55.	2.5	27
322	Phase explosion in atmospheric pressure infrared laser ablation from water-rich targets. Applied Physics Letters, 2006, 89, 041503.	3.3	27
323	Computer simulations of argonâ€“hydrogen Grimm-type glow discharges. Journal of Analytical Atomic Spectrometry, 2008, 23, 1476.	3.0	27
324	Inactivation of human pancreatic ductal adenocarcinoma with atmospheric plasma treated media and water: a comparative study. Journal Physics D: Applied Physics, 2018, 51, 255401.	2.8	27

#	Article	IF	Citations
325	Plasma for cancer treatment: How can RONS penetrate through the cell membrane? Answers from computer modeling. Frontiers of Chemical Science and Engineering, 2019, 13, 253-263.	4.4	27
326	CO₂ Activation on TiO₂-Supported Cu₅ and Ni₅ Nanoclusters: Effect of Plasma-Induced Surface Charging. Journal of Physical Chemistry C, 2019, 123, 6516-6525.	3.1	27
327	Plasma-Catalytic Partial Oxidation of Methane on Pt(111): A Microkinetic Study on the Role of Different Plasma Species. Journal of Physical Chemistry C, 2021, 125, 2966-2983.	3.1	27
328	The essential role of the plasma sheath in plasmaâ€“liquid interaction and its applicationsâ€”A perspective. Journal of Applied Physics, 2021, 129, .	2.5	27
329	Spatial behavior of energy relaxation of electrons in capacitively coupled discharges: Comparison between Ar and SiH4. Journal of Applied Physics, 2000, 87, 3628-3636.	2.5	26
330	Hybrid Monte Carloâ€”fluid model for a microsecond pulsed glow discharge. Journal of Analytical Atomic Spectrometry, 2000, 15, 895-905.	3.0	26
331	Fundamental studies on a planar-cathode direct current glow discharge. Part I: characterization via laser scattering techniques. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 435-447.	2.9	26
332	Fluorineâ€“Silicon Surface Reactions during Cryogenic and Near Room Temperature Etching. Journal of Physical Chemistry C, 2014, 118, 30315-30324.	3.1	26
333	Multi-level molecular modelling for plasma medicine. Journal Physics D: Applied Physics, 2016, 49, 054002.	2.8	26
334	Enhancement of plasma generation in catalyst pores with different shapes. Plasma Sources Science and Technology, 2018, 27, 055008.	3.1	26
335	Impact of plasma oxidation on structural features of human epidermal growth factor. Plasma Processes and Polymers, 2018, 15, 1800022.	3.0	26
336	Arc plasma reactor modification for enhancing performance of dry reforming of methane. Journal of CO2 Utilization, 2020, 42, 101352.	6.8	26
337	Oxidation of Innate Immune Checkpoint CD47 on Cancer Cells with Non-Thermal Plasma. Cancers, 2021, 13, 579.	3.7	26
338	Description of the argon-excited levels in a radio-frequency and direct current glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2000, 55, 263-278.	2.9	25
339	Atomic Spectroscopy. Analytical Chemistry, 2002, 74, 2691-2712.	6.5	25
340	Numerical modelling of gas discharge plasmas for various applications. Vacuum, 2002, 69, 37-52.	3.5	25
341	Fundamental studies on a planar-cathode direct current glow discharge. Part II: numerical modeling and comparison with laser scattering experiments. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 449-460.	2.9	25
342	Molecular dynamics simulation of the impact behaviour of various hydrocarbon species on DLC. Nuclear Instruments & Methods in Physics Research B, 2005, 228, 315-318.	1.4	25

#	Article	IF	Citations
343	Structure of multispecies charged particles in a quadratic trap. Physical Review E, 2006, 73, 047402.	2.1	25
344	Numerical study of the sputtering in a dc magnetron. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2009, 27, 20-28.	2.1	25
345	The origin of Bohm diffusion, investigated by a comparison of different modelling methods. Journal Physics D: Applied Physics, 2010, 43, 292001.	2.8	25
346	Molecular dynamics simulations of Cl+ etching on a Si(100) surface. Journal of Applied Physics, 2010, 107, 113305.	2.5	25
347	Occurrence of gas flow rotational motion inside the ICP torch: a computational and experimental study. Journal of Analytical Atomic Spectrometry, 2014, 29, 249-261.	3.0	25
348	Cryogenic etching of silicon with SF₆inductively coupled plasmas: a combined modelling and experimental study. Journal Physics D: Applied Physics, 2015, 48, 155204.	2.8	25
349	Investigations of discharge and post-discharge in a gliding arc: a 3D computational study. Plasma Sources Science and Technology, 2017, 26, 055017.	3.1	25
350	CO₂ Conversion in a Gliding Arc Plasmatron: Elucidating the Chemistry through Kinetic Modeling. Journal of Physical Chemistry C, 2017, 121, 22644-22655.	3.1	25
351	CAP modifies the structure of a model protein from thermophilic bacteria: mechanisms of CAP-mediated inactivation. Scientific Reports, 2018, 8, 10218.	3.3	25
352	Energyâ€Efficient Smallâ€Scale Ammonia Synthesis Process with Plasmaâ€Enabled Nitrogen Oxidation and Catalytic Reduction of Adsorbed NO_{<i>x</i>}. ChemSusChem, 2022, 15, .	6.8	25
353	Modeling of argon direct current glow discharges and comparison with experiment: how good is the agreement?. Journal of Analytical Atomic Spectrometry, 1998, 13, 945-953.	3.0	24
354	Modeling of ionization of argon in an analytical capacitively coupled radio-frequency glow discharge. Journal of Applied Physics, 1999, 86, 2990-3001.	2.5	24
355	Multiple void formation in plasmas containing multispecies charged grains. Physical Review E, 2006, 74, 056401.	2.1	24
356	Aromatic ring generation as a dust precursor in acetylene discharges. Applied Physics Letters, 2006, 88, 151501.	3.3	24
357	Unraveling the deposition mechanism in a-C:H thin-film growth: A molecular-dynamics study for the reaction behavior of C3 and C3H radicals with a-C:H surfaces. Journal of Applied Physics, 2006, 99, 014902.	2.5	24
358	Modeling of chemical processes in the low pressure capacitive radio frequency discharges in a mixture of Ar/C2H2. Journal of Applied Physics, 2009, 105, .	2.5	24
359	Electromagnetic effects in high-frequency large-area capacitive discharges: A review. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	24
360	Quasiâ€Neutral Modeling of Gliding Arc Plasmas. Plasma Processes and Polymers, 2017, 14, 1600110.	3.0	24

#	Article	IF	Citations
361	Modelling of plasma-based dry reforming: how do uncertainties in the input data affect the calculation results?. Journal Physics D: Applied Physics, 2018, 51, 204003.	2.8	24
362	Physical plasma-derived oxidants sensitize pancreatic cancer cells to ferroptotic cell death. Free Radical Biology and Medicine, 2021, 166, 187-200.	2.9	24
363	Al2O3-Supported Transition Metals for Plasma-Catalytic NH3 Synthesis in a DBD Plasma: Metal Activity and Insights into Mechanisms. Catalysts, 2021, 11, 1230.	3.5	24
364	Oxygenate Production from Plasma-Activated Reaction of CO₂ and Ethane. ACS Energy Letters, 2022, 7, 236-241.	17.4	24
365	Argon and copper optical emission spectra in a Grimm glow discharge source: mathematical simulations and comparison with experiment. Journal of Analytical Atomic Spectrometry, 1998, 13, 721-726.	3.0	23
366	Dynamic Monte Carlo simulation for reactive sputtering of aluminium. Nuclear Instruments & Methods in Physics Research B, 2003, 207, 415-423.	1.4	23
367	Study of the sputtered Cu atoms and Cu+ ions in a hollow cathode glow discharge using a hybrid model. Journal of Applied Physics, 2005, 98, 033303.	2.5	23
368	Rotating cylindrical magnetron sputtering: Simulation of the reactive process. Journal of Applied Physics, 2010, 107, .	2.5	23
369	The effect of F₂attachment by low-energy electrons on the electron behaviour in an Ar/CF₄inductively coupled plasma. Plasma Sources Science and Technology, 2012, 21, 025008.	3.1	23
370	Revisiting the interplay between ablation, collisional, and radiative processes during ns-laser ablation. Applied Physics Letters, 2013, 103, .	3.3	23
371	Effective ionisation coefficients and critical breakdown electric field of CO₂at elevated temperature: effect of excited states and ion kinetics. Plasma Sources Science and Technology, 2016, 25, 055025.	3.1	23
372	Rational design of an XNA ligase through docking of unbound nucleic acids to toroidal proteins. Nucleic Acids Research, 2019, 47, 7130-7142.	14.5	23
373	Physical Plasma-Treated Skin Cancer Cells Amplify Tumor Cytotoxicity of Human Natural Killer (NK) Cells. Cancers, 2020, 12, 3575.	3.7	23
374	How gas flow design can influence the performance of a DBD plasma reactor for dry reforming of methane. Chemical Engineering Journal, 2021, 405, 126618.	12.7	23
375	Experimental determination of the energy distribution of ions bombarding the cathode surface in a glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1995, 50, 583-605.	2.9	22
376	Calculation of cathode heating in analytical glow discharges. Journal of Analytical Atomic Spectrometry, 2004, 19, 1206.	3.0	22
377	On the reaction behaviour of hydrocarbon species at diamond (1â€‰0â€‰0) and (1â€‰1â€‰1) surfaces: a molecular dynamics investigation. Journal Physics D: Applied Physics, 2008, 41, 032006.	2.8	22
378	Formation of endohedral Ni@C60 and exohedral Niâ€“C60 metallofullerene complexes by simulated ion implantation. Carbon, 2009, 47, 1028-1033.	10.3	22

#	Article	IF	Citations
379	Bond switching regimes in nickel and nickelâ€“carbon nanoclusters. Chemical Physics Letters, 2010, 488, 202-205.	2.6	22
380	Modeling of the plasma chemistry and plasmaâ€“surface interactions in reactive plasmas. Pure and Applied Chemistry, 2010, 82, 1283-1299.	1.9	22
381	Understanding the Surface Diffusion Processes during Magnetron Sputter-Deposition of Complex Oxide Mgâ€“Alâ€“O Thin Films. Crystal Growth and Design, 2011, 11, 2553-2558.	3.0	22
382	Pinpointing energy losses in CO2 plasmas â€“ Effect on CO2 conversion. Journal of CO2 Utilization, 2018, 24, 479-499.	6.8	22
383	Mode Transition of Filaments in Packed-Bed Dielectric Barrier Discharges. Catalysts, 2018, 8, 248.	3.5	22
384	Removal of alachlor, diuron and isoproturon in water in a falling film dielectric barrier discharge (DBD) reactor combined with adsorption on activated carbon textile: Reaction mechanisms and oxidation by-products. Journal of Hazardous Materials, 2018, 354, 180-190.	12.4	22
385	Computer Simulation of an Analytical Direct Current Glow Discharge in Argon: Influence of the Cell Dimensions on the Plasma Quantities. Journal of Analytical Atomic Spectrometry, 1997, 12, 751-759.	3.0	21
386	Computer simulations of laser ablation sample introduction for plasma-source elemental microanalysis. Journal of Analytical Atomic Spectrometry, 2006, 21, 1161.	3.0	21
387	Simulation of disk- and band-like voids in dusty plasma systems. Physics of Plasmas, 2006, 13, 052110.	1.9	21
388	Reactive molecular dynamics simulations on SiO₂-coated ultra-small Si-nanowires. Nanoscale, 2013, 5, 719-725.	5.6	21
389	Etching of low-kmaterials for microelectronics applications by means of a N2/H2plasma: modeling and experimental investigation. Plasma Sources Science and Technology, 2013, 22, 025011.	3.1	21
390	Phase modulation in pulsed dual-frequency capacitively coupled plasmas. Journal of Applied Physics, 2014, 115, .	2.5	21
391	Fluid simulation of the bias effect in inductive/capacitive discharges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	21
392	Plasma treatment causes structural modifications in lysozyme, and increases cytotoxicity towards cancer cells. International Journal of Biological Macromolecules, 2021, 182, 1724-1736.	7.5	21
393	Catalyst-free single-step plasma reforming of CH4 and CO2 to higher value oxygenates under ambient conditions. Chemical Engineering Journal, 2022, 450, 137860.	12.7	21
394	Behavior of the sputtered copper atoms, ions and excited species in a radio-frequency and direct current glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2000, 55, 279-297.	2.9	20
395	Comparison of modeling calculations with experimental results for rf glow discharge optical emission spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2002, 57, 109-119.	2.9	20
396	Particle-in-cell Monte Carlo modeling of Langmuir probes in an Ar plasma. Journal of Applied Physics, 2005, 97, 123310.	2.5	20

#	Article	IF	Citations
397	Modeling study on the influence of the pressure on a dielectric barrier discharge microplasma. Journal of Analytical Atomic Spectrometry, 2007, 22, 1033.	3.0	20
398	A density-functional theory simulation of the formation of Ni-doped fullerenes by ion implantation. Carbon, 2011, 49, 1013-1017.	10.3	20
399	Heating mode transition in a hybrid direct current/dual-frequency capacitively coupledCF4discharge. Journal of Applied Physics, 2014, 115, 223302.	2.5	20
400	Cold Atmospheric Plasma Treatment for Pancreatic Cancerâ€“The Importance of Pancreatic Stellate Cells. Cancers, 2020, 12, 2782.	3.7	20
401	Towards Green Ammonia Synthesis through Plasmaâ€Driven Nitrogen Oxidation and Catalytic Reduction. Angewandte Chemie, 2020, 132, 24033-24037.	2.0	20
402	The penetration of reactive oxygen and nitrogen species across the stratum corneum. Plasma Processes and Polymers, 2020, 17, 2000005.	3.0	20
403	Positive and negative streamer propagation in volume dielectric barrier discharges with planar and porous electrodes. Plasma Processes and Polymers, 2021, 18, 2000234.	3.0	20
404	Glow discharge modelling: from basic understanding towards applications. Surface and Interface Analysis, 2003, 35, 593-603.	1.8	19
405	Computer simulations of crater profiles in glow discharge optical emission spectrometry: comparison with experiments and investigation of the underlying mechanisms. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 1403-1411.	2.9	19
406	Temporal and spatially resolved laser-scattering plasma diagnostics for the characterization of a ms-pulsed glow discharge. Journal of Analytical Atomic Spectrometry, 2006, 21, 350.	3.0	19
407	Reaction mechanisms and thin a-C:H film growth from low energy hydrocarbon radicals. Journal of Physics: Conference Series, 2007, 86, 012020.	0.4	19
408	Molecular Dynamics Simulations of the Growth of Thin Aâ€C:H Films Under Additional Ion Bombardment: Influence of the Growth Species and the Ar⁺ Ion Kinetic Energy. Chemical Vapor Deposition, 2007, 13, 312-318.	1.3	19
409	The effect of the magnetic field strength on the sheath region of a dc magnetron discharge. Journal Physics D: Applied Physics, 2008, 41, 202007.	2.8	19
410	Optimized Transport Setup for High Repetition Rate Pulse-Separated Analysis in Laser Ablationâˆ’Inductively Coupled Plasma Mass Spectrometry. Analytical Chemistry, 2009, 81, 4241-4248.	6.5	19
411	Modeling adatom surface processes during crystal growth: A new implementation of the Metropolis Monte Carlo algorithm. CrystEngComm, 2009, 11, 1597.	2.6	19
412	Investigating the plasma chemistry for the synthesis of carbon nanotubes/nanofibres in an inductively coupled plasma-enhanced CVD system: the effect of processing parameters. Journal Physics D: Applied Physics, 2010, 43, 315203.	2.8	19
413	Computer simulations of an oxygen inductively coupled plasma used for plasma-assisted atomic layer deposition. Plasma Sources Science and Technology, 2011, 20, 015008.	3.1	19
414	Fluid simulation of the phase-shift effect in hydrogen capacitively coupled plasmas: II. Radial uniformity of the plasma characteristics. Journal Physics D: Applied Physics, 2012, 45, 015203.	2.8	19

#	Article	IF	Citations
415	Kinetic simulation of direct-current driven microdischarges in argon at atmospheric pressure. Journal Physics D: Applied Physics, 2014, 47, 435201.	2.8	19
416	Bulk plasma fragmentation in a C4F8 inductively coupled plasma: A hybrid modeling study. Journal of Applied Physics, 2015, 117, .	2.5	19
417	How do plasma-generated OH radicals react with biofilm components? Insights from atomic scale simulations. Biointerphases, 2015, 10, .	1.6	19
418	Atomic scale behavior of oxygen-based radicals in water. Journal Physics D: Applied Physics, 2017, 50, 11LT01.	2.8	19
419	Study of an AC dielectric barrier single micro-discharge filament over a water film. Scientific Reports, 2018, 8, 10919.	3.3	19
420	Structural modification of NADPH oxidase activator (Noxa 1) by oxidative stress: An experimental and computational study. International Journal of Biological Macromolecules, 2020, 163, 2405-2414.	7.5	19
421	Peer Reviewed: Modeling Glow Discharges: What Can We Learn From It?. Analytical Chemistry, 1997, 69, 719A-727A.	6.5	18
422	Particle-in-cell/Monte Carlo simulations of a low-pressure capacitively coupled radio-frequency discharge: Effect of adding H2 to an Ar discharge. Journal of Applied Physics, 2003, 93, 5025-5033.	2.5	18
423	Reaction mechanisms of low-kinetic energy hydrocarbon radicals on typical hydrogenated amorphous carbon (a-C:H) sites: A molecular dynamics study. Diamond and Related Materials, 2006, 15, 1663-1676.	3.9	18
424	Reactive sputter deposition of TiN_{<i>x</i>}films, simulated with a particle-in-cell/Monte Carlo collisions model. New Journal of Physics, 2009, 11, 023039.	2.9	18
425	Theoretical Characterization of an Atmospheric Pressure Glow Discharge Used for Analytical Spectrometry. Analytical Chemistry, 2009, 81, 9096-9108.	6.5	18
426	Numerical simulation analysis of flow patterns and particle transport in the HEAD laser ablation cell with respect to inductively coupled plasma spectrometry. Journal of Analytical Atomic Spectrometry, 2010, 25, 295.	3.0	18
427	Fluid simulations of frequency effects on nonlinear harmonics in inductively coupled plasma. Physics of Plasmas, 2011, 18, .	1.9	18
428	Fluid simulation of the phase-shift effect in hydrogen capacitively coupled plasmas: I. Transient behaviour of electrodynamics and power deposition. Journal Physics D: Applied Physics, 2012, 45, 015202.	2.8	18
429	Effect of a mass spectrometer interface on inductively coupled plasma characteristics: a computational study. Journal of Analytical Atomic Spectrometry, 2012, 27, 604.	3.0	18
430	Mechanisms of Peptide Oxidation by Hydroxyl Radicals: Insight at the Molecular Scale. Journal of Physical Chemistry C, 2017, 121, 5787-5799.	3.1	18
431	Phosphatidylserine flipâ€flop induced by oxidation of the plasma membrane: a better insight by atomic scale modeling. Plasma Processes and Polymers, 2017, 14, 1700013.	3.0	18
432	Impact of the Particle Diameter on Ion Cloud Formation from Gold Nanoparticles in ICPMS. Analytical Chemistry, 2018, 90, 10271-10278.	6.5	18

#	Article	IF	Citations
433	Effusion nozzle for energy-efficient NOx production in a rotating gliding arc plasma reactor. Chemical Engineering Journal, 2022, 443, 136529.	12.7	18
434	Carbon bed post-plasma to enhance the CO2 conversion and remove O2 from the product stream. Chemical Engineering Journal, 2022, 442, 136268.	12.7	18
435	Influence of sticking coefficients on the behavior of sputtered atoms in an argon glow discharge: Modeling and comparison with experiment. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2400-2410.	2.1	17
436	Monte Carlo model for the argon ions and fast argon atoms in a radio-frequency discharge. IEEE Transactions on Plasma Science, 1999, 27, 1406-1415.	1.3	17
437	Comparison of modeling calculations with experimental results for direct current glow discharge optical emission spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2001, 56, 551-564.	2.9	17
438	Molecular dynamics simulation of oxide thin film growth: Importance of the inter-atomic interaction potential. Chemical Physics Letters, 2010, 485, 315-319.	2.6	17
439	Insights into the Growth of (Ultra)nanocrystalline Diamond by Combined Molecular Dynamics and Monte Carlo Simulations. Crystal Growth and Design, 2010, 10, 3005-3021.	3.0	17
440	Differences between Ultrananocrystalline and Nanocrystalline Diamond Growth: Theoretical Investigation of C_{<i>x</i>}H_{<i>y</i>} Species at Diamond Step Edges. Crystal Growth and Design, 2010, 10, 4123-4134.	3.0	17
441	The effect of the sampling cone position and diameter on the gas flow dynamics in an ICP. Journal of Analytical Atomic Spectrometry, 2013, 28, 1485.	3.0	17
442	CF₄decomposition in a low-pressure ICP: influence of applied power and O₂content. Journal Physics D: Applied Physics, 2014, 47, 355205.	2.8	17
443	Modeling and Experimental Study of Trichloroethylene Abatement with a Negative Direct Current Corona Discharge. Plasma Chemistry and Plasma Processing, 2015, 35, 217-230.	2.4	17
444	Nitrogen Fixation by Gliding Arc Plasma: Better Insight by Chemical Kinetics Modelling. ChemSusChem, 2017, 10, 2110-2110.	6.8	17
445	Modeling of glow discharge sources with flat and pin cathodes and implications for mass spectrometric analysis. Journal of the American Society for Mass Spectrometry, 1997, 8, 1021-1029.	2.8	16
446	Modeling of the target surface modification by reactive ion implantation during magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1524-1529.	2.1	16
447	The effect of hydrogen on the electronic and bonding properties of amorphous carbon. Journal of Physics Condensed Matter, 2006, 18, 10803-10815.	1.8	16
448	Gas ratio effects on the Si etch rate and profile uniformity in an inductively coupled Ar/CF₄plasma. Plasma Sources Science and Technology, 2013, 22, 015017.	3.1	16
449	Computational study of plasma sustainability in radio frequency micro-discharges. Journal of Applied Physics, 2014, 115, 193301.	2.5	16
450	Toward the Understanding of Selective Si Nano-Oxidation by Atomic Scale Simulations. Accounts of Chemical Research, 2017, 50, 796-804.	15.6	16

#	Article	IF	Citations
451	On the Anti-Cancer Effect of Cold Atmospheric Plasma and the Possible Role of Catalase-Dependent Apoptotic Pathways. Cells, 2020, 9, 2330.	4.1	16
452	Parametrization and Molecular Dynamics Simulations of Nitrogen Oxyanions and Oxyacids for Applications in Atmospheric and Biomolecular Sciences. Journal of Physical Chemistry B, 2020, 124, 1082-1089.	2.6	16
453	Plasma propagation in a single bead DBD reactor at different dielectric constants: insights from fluid modelling. Journal Physics D: Applied Physics, 2021, 54, 214004.	2.8	16
454	Modeling of gas discharge plasmas: What can we learn from it?. Surface and Coatings Technology, 2005, 200, 62-67.	4.8	15
455	Study of Atmospheric MOCVD of TiO₂ Thin Films by Means of Computational Fluid Dynamics Simulations. Chemical Vapor Deposition, 2008, 14, 339-346.	1.3	15
456	Electron bounce resonance heating in dual-frequency capacitively coupled oxygen discharges. Plasma Sources Science and Technology, 2013, 22, 025012.	3.1	15
457	Synthesis of Micro- and Nanomaterials in CO₂and CO Dielectric Barrier Discharges. Plasma Processes and Polymers, 2017, 14, 1600065.	3.0	15
458	Chemistry reduction of complex CO₂ chemical kinetics: application to a gliding arc plasma. Plasma Sources Science and Technology, 2020, 29, 025012.	3.1	15
459	Cocktail of reactive species generated by cold atmospheric plasma: oral administration induces non-small cell lung cancer cell death. Journal Physics D: Applied Physics, 2021, 54, 185202.	2.8	15
460	Cold Atmospheric Plasma Does Not Affect Stellate Cells Phenotype in Pancreatic Cancer Tissue in Ovo. International Journal of Molecular Sciences, 2022, 23, 1954.	4.1	15
461	The effect of local <scp>nonâ€thermal</scp> plasma therapy on the <scp>cancerâ€immunity</scp> cycle in a melanoma mouse model. Bioengineering and Translational Medicine, 2022, 7, .	7.1	15
462	Mathematical description of a direct current glow discharge in argon. Analytical and Bioanalytical Chemistry, 1996, 355, 853-857.	3.7	14
463	Incorporating the gas flow in a numerical model of rf discharges in methane. Journal of Applied Physics, 2004, 96, 3070-3076.	2.5	14
464	Fluid simulation of the phase-shift effect in Ar/CF₄ capacitively coupled plasmas. Journal Physics D: Applied Physics, 2012, 45, 485204.	2.8	14
465	Heating mechanism in direct current superposed single-frequency and dual-frequency capacitively coupled plasmas. Plasma Sources Science and Technology, 2013, 22, 025014.	3.1	14
466	Nanoscale mechanisms of CNT growth and etching in plasma environment. Journal Physics D: Applied Physics, 2017, 50, 184001.	2.8	14
467	Synthesis and in vitro investigation of halogenated 1,3â€bis(4â€nitrophenyl)triazenide salts as antitubercular compounds. Chemical Biology and Drug Design, 2018, 91, 631-640.	3.2	14
468	Perspectives of Plasma-treated Solutions as Anticancer Drugs. Anti-Cancer Agents in Medicinal Chemistry, 2019, 19, 436-438.	1.7	14

#	Article	IF	Citations
469	Risk Evaluation of EMT and Inflammation in Metastatic Pancreatic Cancer Cells Following Plasma Treatment. Frontiers in Physics, 2020, 8, .	2.1	14
470	Probing the impact of material properties of core-shell SiO2@TiO2 spheres on the plasma-catalytic CO2 dissociation using a packed bed DBD plasma reactor. Journal of CO2 Utilization, 2021, 46, 101468.	6.8	14
471	Thermal instability and volume contraction in a pulsed microwave N₂ plasma at sub-atmospheric pressure. Plasma Sources Science and Technology, 2021, 30, 055005.	3.1	14
472	Improved hybrid Monte Carloâ€“fluid model for the electrical characteristics in an analytical radio-frequency glow discharge in argon. Journal of Analytical Atomic Spectrometry, 2001, 16, 750-755.	3.0	13
473	Computer Simulations for Processing Plasmas. Plasma Processes and Polymers, 2006, 3, 110-119.	3.0	13
474	Special Issue of Papers by Plenary and Topical Invited Lecturers at the 22nd International Symposium on Plasma Chemistry (ISPC 22), 5â€“10 July 2015, Antwerp, Belgium: Introduction. Plasma Chemistry and Plasma Processing, 2016, 36, 1-2.	2.4	13
475	Three-dimensional modeling of energy transport in a gliding arc discharge in argon. Plasma Sources Science and Technology, 2018, 27, 125011.	3.1	13
476	Plasma streamer propagation in structured catalysts. Plasma Sources Science and Technology, 2018, 27, 105013.	3.1	13
477	H2S Decomposition into H2 and S2 by Plasma Technology: Comparison of Gliding Arc and Microwave Plasma. Plasma Chemistry and Plasma Processing, 2020, 40, 1163-1187.	2.4	13
478	Influence of osmolytes and ionic liquids on the Bacteriorhodopsin structure in the absence and presence of oxidative stress: A combined experimental and computational study. International Journal of Biological Macromolecules, 2020, 148, 657-665.	7.5	13
479	Spatially and temporally non-uniform plasmas: microdischarges from the perspective of molecules in a packed bed plasma reactor. Journal Physics D: Applied Physics, 2021, 54, 174002.	2.8	13
480	Methane to Methanol through Heterogeneous Catalysis and Plasma Catalysis. Catalysts, 2021, 11, 590.	3.5	13
481	Effect of N2 on CO2-CH4 conversion in a gliding arc plasmatron: Can this major component in industrial emissions improve the energy efficiency?. Journal of CO2 Utilization, 2021, 54, 101767.	6.8	13
482	Insights into the limitations to vibrational excitation of CO₂: validation of a kinetic model with pulsed glow discharge experiments. Plasma Sources Science and Technology, 2022, 31, 074003.	3.1	13
483	Comparison between a radio-frequency and direct current glow discharge in argon by a hybrid Monte Carloâ€“fluid model for electrons, argon ions and fast argon atoms. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1999, 54, 1335-1350.	2.9	12
484	PIC-MC simulation of an RF capacitively coupled Ar/H2 discharge. Nuclear Instruments & Methods in Physics Research B, 2003, 202, 300-304.	1.4	12
485	Behavior of electrons in a dual-magnetron sputter deposition system: a Monte Carlo model. New Journal of Physics, 2011, 13, 033018.	2.9	12
486	Numerical characterization of local electrical breakdown in sub-micrometer metallized film capacitors. New Journal of Physics, 2014, 16, 113036.	2.9	12

#	Article	IF	Citations
487	Enhancement of cellular glucose uptake by reactive species: a promising approach for diabetes therapy. RSC Advances, 2018, 8, 9887-9894.	3.6	12
488	Lipid Oxidation: Role of Membrane Phase-Separated Domains. Journal of Chemical Information and Modeling, 2021, 61, 2857-2868.	5.4	12
489	Theoretical Investigation of Grain Size Tuning during Prolonged Bias-Enhanced Nucleation. Chemistry of Materials, 2011, 23, 1414-1423.	6.7	11
490	Structural modification of P-glycoprotein induced by OH radicals: Insights from atomistic simulations. Scientific Reports, 2016, 6, 19466.	3.3	11
491	Plasmaâ€“liquid interactions. Journal of Applied Physics, 2021, 130, .	2.5	11
492	Recent trends in solid mass spectrometry: GDMS and other methods. Fresenius' Journal of Analytical Chemistry, 1997, 359, 326-330.	1.5	10
493	Three-dimensional modeling of a direct current glow discharge in argon: is it better than one-dimensional modeling?. Fresenius' Journal of Analytical Chemistry, 1997, 359, 331-337.	1.5	10
494	Hollow cathode discharges with gas flow: numerical modelling for the effect on the sputtered atoms and the deposition flux. Plasma Sources Science and Technology, 2005, 14, 191-200.	3.1	10
495	Characterization of an Ar/O₂magnetron plasma by a multi-species Monte Carlo model. Plasma Sources Science and Technology, 2011, 20, 045013.	3.1	10
496	A multiphase model for pulsed ns-laser ablation of copper in an ambient gas. AIP Conference Proceedings, 2012, , .	0.4	10
497	Ion Clouds in the Inductively Coupled Plasma Torch: A Closer Look through Computations. Analytical Chemistry, 2016, 88, 8005-8018.	6.5	10
498	Selective Glucocorticoid Receptor Properties of GSK866 Analogs with Cysteine Reactive Warheads. Frontiers in Immunology, 2017, 8, 1324.	4.8	10
499	Suppressing the formation of NO_x and N₂O in CO₂/N₂ dielectric barrier discharge plasma by adding CH₄: scavenger chemistry at work. Sustainable Energy and Fuels, 2019, 3, 1388-1395.	4.9	10
500	Transport of cystine across xCâˆ’ antiporter. Archives of Biochemistry and Biophysics, 2019, 664, 117-126.	3.0	10
501	How do nitrated lipids affect the properties of phospholipid membranes?. Archives of Biochemistry and Biophysics, 2020, 695, 108548.	3.0	10
502	Covalent Cysteine Targeting of Brutonâ€™s Tyrosine Kinase (BTK) Family by Withaferin-A Reduces Survival of Glucocorticoid-Resistant Multiple Myeloma MM1 Cells. Cancers, 2021, 13, 1618.	3.7	10
503	Laser-induced excitation mechanisms and phase transitions in spectrochemical analysis â€“ Review of the fundamentals. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 179, 106091.	2.9	10
504	Nitrogen fixation in pulsed microwave discharge studied by infrared absorption combined with modelling. Plasma Sources Science and Technology, 2021, 30, 065007.	3.1	10

#	Article	IF	Citations
505	Can plasma spectrochemistry assist in improving the accuracy of chemical analysis?. Analytica Chimica Acta, 2002, 456, 63-75.	5.4	9
506	Influence of internal energy and impact angle on the sticking behaviour of reactive radicals in thin a-C:H film growth: a molecular dynamics study. Physical Chemistry Chemical Physics, 2006, 8, 2066.	2.8	9
507	Monte Carlo analysis of the electron thermalization process in the afterglow of a microsecond dc pulsed glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 1274-1282.	2.9	9
508	Computer Simulations of Laser Ablation, Plume Expansion and Plasma Formation. Advanced Materials Research, 0, 227, 1-10.	0.3	9
509	Modeling ultrashort laser-induced emission from a negatively biased metal. Applied Physics Letters, 2013, 103, .	3.3	9
510	Ion irradiation for improved graphene network formation in carbon nanotube growth. Carbon, 2014, 77, 790-795.	10.3	9
511	Concurrent effects of wafer temperature and oxygen fraction on cryogenic silicon etching with SF₆/O₂ plasmas. Plasma Processes and Polymers, 2017, 14, 1700018.	3.0	9
512	How the alignment of adsorbed ortho H pairs determines the onset of selective carbon nanotube etching. Nanoscale, 2017, 9, 1653-1661.	5.6	9
513	The Potential Use of Core-Shell Structured Spheres in a Packed-Bed DBD Plasma Reactor for CO2 Conversion. Catalysts, 2020, 10, 530.	3.5	9
514	Modulating the Antioxidant Response for Better Oxidative Stress-Inducing Therapies: How to Take Advantage of Two Sides of the Same Medal?. Biomedicines, 2022, 10, 823.	3.2	9
515	Effect of Cysteine Oxidation in SARS-CoV-2 Receptor-Binding Domain on Its Interaction with Two Cell Receptors: Insights from Atomistic Simulations. Journal of Chemical Information and Modeling, 2022, 62, 129-141.	5.4	9
516	Semianalytical description of nonlocal secondary electrons in a radio frequency capacitively coupled plasma at intermediate pressures. IEEE Transactions on Plasma Science, 1999, 27, 1339-1347.	1.3	8
517	Terahertz radiation from oscillating electrons in laser-induced wake fields. Physical Review E, 2004, 70, 046408.	2.1	8
518	Negative ion behavior in single- and dual-frequency plasma etching reactors: Particle-in-cell/Monte Carlo collision study. Physical Review E, 2006, 73, 036402.	2.1	8
519	Modeling of the Magnetron Discharge. Springer Series in Materials Science, 2008, , 61-130.	0.6	8
520	Simultaneous Etching and Deposition Processes during the Etching of Silicon with a Cl₂/O₂/Ar Inductively Coupled Plasma. Plasma Processes and Polymers, 2011, 8, 490-499.	3.0	8
521	Modeling of plasma and plasma-surface interactions for medical, environmental and nano applications. Journal of Physics: Conference Series, 2012, 399, 012011.	0.4	8
522	Numerical investigation of HBr/He transformer coupled plasmas used for silicon etching. Journal Physics D: Applied Physics, 2015, 48, 025202.	2.8	8

#	Article	IF	Citations
523	Computational study of the CF₄â€‰/CHF₃â€‰/â€‰H₂â€‰/Cl₂â€‰/O₂â€‰/HBr gas phase plasma chemistry. Journal Physics D: Applied Physics, 2016, 49, 195203.	2.8	8
524	Multi-dimensional modelling of a magnetically stabilized gliding arc plasma in argon and CO₂. Plasma Sources Science and Technology, 2020, 29, 045019.	3.1	8
525	Multiscale modeling of plasmaâ€“surface interactionâ€"General picture and a case study of Si and SiO2 etching by fluorocarbon-based plasmas. Applied Physics Reviews, 2021, 8, .	11.3	8
526	Toward defining plasma treatment dose: The role of plasma treatment energy of pulsedâ€dielectric barrier discharge in dictating in vitro biological responses. Plasma Processes and Polymers, 2022, 19, e2100151.	3.0	8
527	Dry reforming of methane in a nanosecond repetitively pulsed discharge: chemical kinetics modeling. Plasma Sources Science and Technology, 2022, 31, 055014.	3.1	8
528	Axial non-uniformity of longitudinal hollow-cathode discharges for laser applications: numerical modeling and comparison with experiments. Applied Physics B: Lasers and Optics, 2002, 75, 731-738.	2.2	7
529	Monte Carlo method for simulations of adsorbed atom diffusion on a surface. Diamond and Related Materials, 2006, 15, 1629-1635.	3.9	7
530	Vibrational level population of nitrogen impurities in low-pressure argon glow discharges. Journal of Analytical Atomic Spectrometry, 2011, 26, 804-810.	3.0	7
531	Modeling SiH₄/O₂/Ar Inductively Coupled Plasmas Used for Filling of Microtrenches in Shallow Trench Isolation (STI). Plasma Processes and Polymers, 2012, 9, 522-539.	3.0	7
532	Modeling and experimental investigation of the plasma uniformity in CF4/O2 capacitively coupled plasmas, operating in single frequency and dual frequency regime. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	7
533	High Coke Resistance of a TiO₂ Anatase (001) Catalyst Surface during Dry Reforming of Methane. Journal of Physical Chemistry C, 2018, 122, 9389-9396.	3.1	7
534	Effect of oxidative stress on cystine transportation by xCâ€¾ antiporter. Archives of Biochemistry and Biophysics, 2019, 674, 108114.	3.0	7
535	Ensemble-Based Molecular Simulation of Chemical Reactions under Vibrational Nonequilibrium. Journal of Physical Chemistry Letters, 2020, 11, 401-406.	4.6	7
536	Plasma in Cancer Treatment. Cancers, 2020, 12, 2617.	3.7	7
537	The effect of H₂O on the vibrational populations of CO₂ in a CO₂/H₂O microwave plasma: a kinetic modelling investigation. Plasma Sources Science and Technology, 2020, 29, 095009.	3.1	7
538	Unraveling the permeation of reactive species across nitrated membranes by computer simulations. Computers in Biology and Medicine, 2021, 136, 104768.	7.0	7
539	Effect of helium/argon gas ratio in a He-Ar-Cu + IR hollow-cathode discharge laser: modeling study and comparison with experiments. Applied Physics B: Lasers and Optics, 2003, 76, 299-306.	2.2	6
540	Elucidating the asymmetric behavior of the discharge in a dual magnetron sputter deposition system. Applied Physics Letters, 2011, 98, .	3.3	6

#	Article	IF	Citations
541	CO₂reduction reactions: general discussion. Faraday Discussions, 2015, 183, 261-290.	3.2	6
542	Molecular dynamics simulations of mechanical stress on oxidized membranes. Biophysical Chemistry, 2019, 254, 106266.	2.8	6
543	A 2D model of a gliding arc discharge for CO2 conversion. AIP Conference Proceedings, 2019, , .	0.4	6
544	Critical Evaluation of the Interaction of Reactive Oxygen and Nitrogen Species with Blood to Inform the Clinical Translation of Nonthermal Plasma Therapy. Oxidative Medicine and Cellular Longevity, 2020, 2020, 1-10.	4.0	6
545	Cytoglobin inhibits non-thermal plasma-induced apoptosis in melanoma cells through regulation of the NRF2-mediated antioxidant response. Redox Biology, 2022, 55, 102399.	9.0	6
546	Local and fast relaxation phenomena after laser-induced photodetachment in a strongly electronegative rf discharge. Physical Review E, 2001, 65, 016408.	2.1	5
547	Macroscale computer simulations to investigate the chemical vapor deposition of thin metal-oxide films. Surface and Coatings Technology, 2007, 201, 8838-8841.	4.8	5
548	Modeling of a dielectric barrier discharge used as a flowing chemical reactor. Journal of Physics: Conference Series, 2008, 133, 012023.	0.4	5
549	Numerical Investigation of Si<scp>O</scp>₂ Coating Deposition in Wafer Processing Reactors with Si<scp>C</scp>l₄/<scp>O</scp>₂/<scp>A</scp>r Inductively Coupled Plasmas. Plasma Processes and Polymers, 2013, 10, 714-730.	3.0	5
550	Combining molecular dynamics with Monte Carlo simulations: implementations and applications. Highlights in Theoretical Chemistry, 2014, , 277-288.	0.0	5
551	Effects of feedstock availability on the negative ion behavior in a C4F8 inductively coupled plasma. Journal of Applied Physics, 2015, 118, .	2.5	5
552	Atomic-scale mechanisms of plasma-assisted elimination of nascent base-grown carbon nanotubes. Carbon, 2017, 118, 452-457.	10.3	5
553	Mechanisms for plasma cryogenic etching of porous materials. Applied Physics Letters, 2017, 111, .	3.3	5
554	Editorial Catalysts: Special Issue on Plasma Catalysis. Catalysts, 2019, 9, 196.	3.5	5
555	28. Plasma-based CO₂ conversion. , 2019, , 585-634.		5
556	Glow Discharge Mass Spectrometry, Methods. , 1999, , 669-676.		4
557	Kinetic modeling of relaxation phenomena after photodetachment in a rf electronegativeSiH4discharge. Physical Review E, 2001, 63, 026405.	2.1	4
558	The influence of Cr and Y on the micro structural evolution of Mgâ€•Crâ€•O and Mgâ€•Yâ€•O thin films. Thin Solid Films, 2011, 519, 5388-5396.	1.8	4

#	Article	IF	Citations
559	Sputter deposition of MgxAlyOzthin films in a dual-magnetron device: a multi-species Monte Carlo model. New Journal of Physics, 2012, 14, 073043.	2.9	4
560	Special issue on fundamentals of plasmaâ€"surface interactions. Journal Physics D: Applied Physics, 2014, 47, 220301.	2.8	4
561	Incorporation of Fluorescent Dyes in Atmospheric Pressure Plasma Coatings for In-Line Monitoring of Coating Homogeneity. Plasma Processes and Polymers, 2014, 11, 678-684.	3.0	4
562	Selective Plasma Oxidation of Ultrasmall Si Nanowires. Journal of Physical Chemistry C, 2016, 120, 472-477.	3.1	4
563	Special Issue on Numerical Modelling of Lowâ€Temperature Plasmas for Various Applications â€" Part I: Review and Tutorial Papers on Numerical Modelling Approaches. Plasma Processes and Polymers, 2017, 14, 1690011.	3.0	4
564	Pressure as an additional control handle for non-thermal atmospheric plasma processes. Plasma Processes and Polymers, 2017, 14, 1700046.	3.0	4
565	Ceramide crossâ€linking leads to pore formation: Potential mechanism behind CAP enhancement of transdermal drug delivery. Plasma Processes and Polymers, 2019, 16, 1900122.	3.0	4
566	Plasma-Based CO2 Conversion. , 2019, , 287-325.		4
567	Effect of plasma-induced oxidative stress on the glycolysis pathway of Escherichia coli. Computers in Biology and Medicine, 2020, 127, 104064.	7.0	4
568	Flowing Atmospheric Pressure Afterglow for Ambient Ionization: Reaction Pathways Revealed by Modeling. Analytical Chemistry, 2021, 93, 6620-6628.	6.5	4
569	The Quest to Quantify Selective and Synergistic Effects of Plasma for Cancer Treatment: Insights from Mathematical Modeling. International Journal of Molecular Sciences, 2021, 22, 5033.	4.1	4
570	Editorial: Special issue on CO2 utilization with plasma technology. Journal of CO2 Utilization, 2022, 61, 102017.	6.8	4
571	Densification of thin a-Câ€‰:â€‰H films grown from low-kinetic energy hydrocarbon radicals under the influence of H and C particle fluxes: a molecular dynamics study. Journal Physics D: Applied Physics, 2006, 39, 1948-1953.	2.8	3
572	Particleâ€inâ€Cell/Monte Carlo Collisions Model for the Reactive Sputter Deposition of Nitride Layers. Plasma Processes and Polymers, 2009, 6, S784.	3.0	3
573	Role of vibrationally excited HBr in a HBr/He inductively coupled plasma used for etching of silicon. Journal Physics D: Applied Physics, 2016, 49, 245204.	2.8	3
574	Capacitive electrical asymmetry effect in an inductively coupled plasma reactor. Plasma Sources Science and Technology, 2018, 27, 105019.	3.1	3
575	Possible Mechanism of Glucose Uptake Enhanced by Cold Atmospheric Plasma: Atomic Scale Simulations. Plasma, 2018, 1, 119-125.	1.8	3
576	Chemical Detection of Short-Lived Species Induced in Aqueous Media by Atmospheric Pressure Plasma. , 0, , .		3

#	Article	IF	Citations
577	Advances in Plasma Oncology toward Clinical Translation. Cancers, 2020, 12, 3283.	3.7	3
578	Predicted Hotspot Residues Involved in Allosteric Signal Transmission in Pro-Apoptotic Peptideâ€"Mcl1 Complexes. Biomolecules, 2020, 10, 1114.	4.0	3
579	Numerical Modeling of Analytical Glow Discharges. , 0, , 155-205.		2
580	Comment on ÂIntegral cross sections for electron impact excitation of electronic states of N2Â. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 5163-5166.	1.5	2
581	Investigation of Laser Output Power Saturation in the HeCu+ IR Hollow Cathode Discharge Laser by Experiments and Numerical Modeling. Physica Scripta, 2003, T105, 90.	2.5	2
582	Colloquium Spectroscopicum Internationale XXXIV Antwerp (Belgium), 4â€"9 September 2005. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2006, 61, 373-374.	2.9	2
583	Numerical simulation of hydrocarbon plasmas for nanoparticle formation and the growth of nanostructured thin films. Plasma Physics and Controlled Fusion, 2009, 51, 124034.	2.1	2
584	Modeling the Growth of SWNTs and Graphene on the Atomic Scale. ECS Transactions, 2012, 45, 73-78.	0.5	2
585	Formation of a Nanoscale SiO₂Capping Layer on Photoresist Lines with an Ar/SiCl₄/O₂Inductively Coupled Plasma: A Modeling Investigation. Plasma Processes and Polymers, 2014, 11, 52-62.	3.0	2
586	Special issue on numerical modelling of lowâ€temperature plasmas for various applications â€" part II: Research papers on numerical modelling for various plasma applications. Plasma Processes and Polymers, 2017, 14, 1790041.	3.0	2
587	Modeling plasmas in analytical chemistryâ€"an example of cross-fertilization. Analytical and Bioanalytical Chemistry, 2020, 412, 6059-6083.	3.7	2
588	Distribution of lipid aldehydes in phase-separated membranes: A molecular dynamics study. Archives of Biochemistry and Biophysics, 2022, 717, 109136.	3.0	2
589	Modeling network for argon glow discharges: The output cannot be better than the input. AIP Conference Proceedings, 2000, , .	0.4	1
590	Analysis of Nonconducting Materials by dc Glow Discharge Spectrometry. , 0, , 293-315.		1
591	Combined Molecular Dynamicsâ˜'Continuum Study of Phase Transitions in Bulk Metals under Ultrashort Pulsed Laser Irradiation. Journal of Physical Chemistry C, 2010, 114, 5652-5660.	3.1	1
592	Response to â€œComment on â€˜Laser ablation of Cu and plume expansion into 1â€‰atm ambient gasâ€™â€‰â€•[J. Appl. Phys. 115, 166101 (2014)]. Journal of Applied Physics, 2014, 115, 166102.	2.5	1
593	Elucidating the effects of gas flow rate on an SF6inductively coupled plasma and on the silicon etch rate, by a combined experimental and theoretical investigation. Journal Physics D: Applied Physics, 2016, 49, 385201.	2.8	1
594	Plasma processes and polymers third special issue on plasma and cancer. Plasma Processes and Polymers, 2016, 13, 1142-1143.	3.0	1

#	Article	IF	Citations
595	Modeling for a Better Understanding of Plasma-Based CO2 Conversion. , 2018, , .		1
596	MODELING PECVD GROWTH OF NANOSTRUCTURED CARBON MATERIALS. High Temperature Material Processes, 2009, 13, 399-412.	0.6	1
597	Numerical modeling for a better understanding of gas discharge plasmas. High Temperature Material Processes, 2005, 9, 321-344.	0.6	1
598	Plasma and Plasmaâ€"Cell Interaction Simulations. Springer Series on Atomic, Optical, and Plasma Physics, 2020, , 169-208.	0.2	1
599	Evolution of charged particle densities after laser-induced photodetachment in a strongly electronegative RF discharge. IEEE Transactions on Plasma Science, 2002, 30, 132-133.	1.3	0
600	Fundamental studies on a planar-cathode direct current glow discharge. Part II: numerical modeling and comparison with laser scattering experiments. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, , .	2.9	0
601	Nanoparticle growth and transport mechanisms in capacitively coupled silane discharges: a numerical investigation. AIP Conference Proceedings, 2005, , .	0.4	0
602	Colloquium Spectroscopicum Internationale XXXIV, Antwerp, Belgium, 4â€"9 September 2005. Talanta, 2006, 70, 907-908.	5.5	0
603	Space charge limited electron emission from a Cu surface under ultrashort pulsed laser irradiation. , 2010, , .		0
604	Fluid simulation of the electromagnetic effects and the phase shift effect in Ar/CF<inf>4</inf> capacitively coupled plasmas. , 2012, , .		0
605	Back Cover: Plasma Process. Polym. 10â˘•2014. Plasma Processes and Polymers, 2014, 11, 994-994.	3.0	0
606	Back Cover: Plasma Process. Polym. 4â€"5â˘•2017. Plasma Processes and Polymers, 2017, 14, 1770007.	3.0	0
607	Modeling the CO2 dissociation in pulsed atmospheric-pressure discharge. Journal of Physics: Conference Series, 2020, 1492, 012007.	0.4	0
608	MODELING OF THE SYNTHESIS AND SUBSEQUENT GROWTH OF NANOPARTICLES IN DUSTY PLASMAS. High Temperature Material Processes, 2007, 11, 21-36.	0.6	0
609	Molecular biochemical characterization of selective glucocorticoid receptor activities of GSK866 analogues with cysteine reactive warheads. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, PO2-5-6.	0.0	0
610	Plasma Catalysis Modeling. Springer Series on Atomic, Optical, and Plasma Physics, 2019, , 69-114.	0.2	0
611	OES of a CO₂-Ar Microwave Discharge to Support Modelling. , 2020, , .		0
612	Calculation of crater profiles on a flat cathode in a direct current glow discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1997, 52, 765-777.	2.9	0

#	Article	IF	Citations
613	Feature Papers to Celebrate â€œEnvironmental Catalysisâ€â€”Trends & Outlook. Catalysts, 2022, 12, 720.	3.5	0