Jia Cheng

List of Publications by Year
in descending order

42 papers	1,467 citations	430874 18 h-index	345221 36 g-index
42 all docs	42 docs citations	42 times ranked	1114 citing authors

#	Article	IF	Citations
1	Triboelectric microplasma powered by mechanical stimuli. Nature Communications, 2018, 9, 3733.	12.8	212
2	An aeroelastic flutter based triboelectric nanogenerator as a self-powered active wind speed sensor in harsh environment. Extreme Mechanics Letters, 2017, 15, 122-129.	4.1	123
3	Self-Powered Multifunctional Motion Sensor Enabled by Magnetic-Regulated Triboelectric Nanogenerator. ACS Nano, 2018, 12, 5726-5733.	14.6	109
4	Triboelectric nanogenerators for human-health care. Science Bulletin, 2021, 66, 490-511.	9.0	93
5	High-performance cylindrical pendulum shaped triboelectric nanogenerators driven by water wave energy for full-automatic and self-powered wireless hydrological monitoring system. Nano Energy, 2020, 74, 104937.	16.0	89
6	Decoding lip language using triboelectric sensors with deep learning. Nature Communications, 2022, 13, 1401.	12.8	77
7	Recent advancements for improving the performance of triboelectric nanogenerator devices. Nano Energy, 2022, 99, 107318.	16.0	76
8	TriboPump: A Lowâ€Cost, Handâ€Powered Water Disinfection System. Advanced Energy Materials, 2019, 9, 1901320.	19.5	74
9	Normally Transparent Tribo-Induced Smart Window. ACS Nano, 2020, 14, 3630-3639.	14.6	74
10	Self-powered wireless optical transmission of mechanical agitation signals. Nano Energy, 2018, 47, 566-572.	16.0	66
11	Electrical analysis of triboelectric nanogenerator for high voltage applications exampled by DBD microplasma. Nano Energy, 2019, 56, 482-493.	16.0	64
12	Electrohydrodynamic Jet Printing Driven by a Triboelectric Nanogenerator. Advanced Functional Materials, 2019, 29, 1901102.	14.9	59
13	Power Backpack for Energy Harvesting and Reduced Load Impact. ACS Nano, 2021, 15, 2611-2623.	14.6	49
14	Field Emission of Electrons Powered by a Triboelectric Nanogenerator. Advanced Functional Materials, 2018, 28, 1800610.	14.9	44
15	Distributed mobile ultraviolet light sources driven by ambient mechanical stimuli. Nano Energy, 2020, 74, 104910.	16.0	43
16	Charge Pumping for Slidingâ€mode Triboelectric Nanogenerator with Voltage Stabilization and Boosted Current. Advanced Energy Materials, 2021, 11, 2101147.	19.5	38
17	Triboelectric nanogenerators for electro-assisted cell printing. Nano Energy, 2020, 67, 104150.	16.0	36
18	Energy from greenhouse plastic films. Nano Energy, 2021, 89, 106328.	16.0	21

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19	Two-dimensional simulation of inductively coupled plasma based on COMSOL and comparison with experimental data. Journal of Semiconductors, 2013, 34, 066004.	3.7	19
20	Modeling Approach and Analysis of the Structural Parameters of an Inductively Coupled Plasma Etcher Based on a Regression Orthogonal Design. Plasma Science and Technology, 2012, 14, 1059-1068.	1.5	16
21	Alternating Current Electroluminescent Device Powered by Triboelectric Nanogenerator with Capacitively Driven Circuit Strategy. Advanced Functional Materials, 2022, 32, 2106411.	14.9	16
22	Thousandfold boosting instantaneous current of triboelectric nanogenerator based on decoupled charge pump and discharge tube. Nano Energy, 2022, 98, 107264.	16.0	10
23	Design space of electrostatic chuck in etching chamber. Journal of Semiconductors, 2015, 36, 084004.	3.7	9
24	Prediction of residual clamping force for Coulomb type and Johnsenâ€“Rahbek type of bipolar electrostatic chucks. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2019, 233, 302-312.	2.1	9
25	A Selfâ€Powered and Efficient Triboelectric Dehydrator for Separating Waterâ€inâ€Oil Emulsions with Ultrahigh Moisture Content. Advanced Materials Technologies, 2022, 7, .	5.8	7
26	Preshooting Electroencephalographic Activity of Professional Shooters in a Competitive State. Computational Intelligence and Neuroscience, 2021, 2021, 1-9.	1.7	5
27	Determination of electrostatic force and its characteristics based on phase difference by amplitude modulation atomic force microscopy. Nanoscale Research Letters, 2016, 11, 548.	5.7	4
28	Experimental Study of SiO₂ Sputter Etching Process in 13.56 MHz rf-Biased Inductively Coupled Plasma. Spin, 2018, 08, 1850002.	1.3	4
29	Investigation on the Development of Knowledge-Based Engineering and its Application in Rapid Design of Process Chamber of IC Equipment. Applied Mechanics and Materials, 0, 373-375, 2147-2155.	0.2	3
30	Modeling of Electrostatic Chuck and Simulation of Electrostatic Force. Applied Mechanics and Materials, 2014, 511-512, 588-594.	0.2	3
31	Simulation of cold plasma in a chamber under high- and low-frequency voltage conditions for a capacitively coupled plasma. Journal of Semiconductors, 2012, 33, 104004.	3.7	3
32	The Current Status of Development and Applications of Wave-Heated Discharge Plasma Sources. Advanced Materials Research, 0, 1006-1007, 193-199.	0.3	2
33	Simulation of Dual-Electrode Capacitively Coupled Plasma Discharges. Plasma Science and Technology, 2016, 18, 1175-1180.	1.5	2
34	Electron heating enhancement due to plasma series resonance in a capacitively coupled RF discharge: Electrical modeling and comparison to experimental measurements. Japanese Journal of Applied Physics, 2016, 55, 096201.	1.5	2
35	Quantitative electrostatic force measurement and characterization based on oscillation amplitude using atomic force microscopy. AIP Advances, 2020, 10, 015143.	1.3	2
36	Finite element analysis on factors influencing the clamping force in an electrostatic chuck. Journal of Semiconductors, 2014, 35, 094011.	3.7	1

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37	A novel measuring method of clamping force for electrostatic chuck in semiconductor devices. Journal of Semiconductors, 2016, 37, 044012.	3.7	1
38	Electrical description of an inductively coupled plasma processing reactor with discharge parameters calculated from a global model. AIP Advances, 2020, 10, 035216.	1.3	1
39	Triboelectric Nanogenerators: Charge Pumping for Slidingâ€mode Triboelectric Nanogenerator with Voltage Stabilization and Boosted Current (Adv. Energy Mater. 28/2021). Advanced Energy Materials, 2021, 11, 2170113.	19.5	1
40	Three-Dimensional Discharge Simulation of Inductively Coupled Plasma Etcher. , 2007, , .		0
41	Measurement of Argon emission spectral of ICP plasma using a diagnostic system based on photomultiplier tubes array. MATEC Web of Conferences, 2017, 128, 05016.	0.2	0
42	Measuring System Design and Experimental Research on Electrostatic Attractive Force. IEEE Design and Test, 2018, 35, 71-77.	1.2	0