Hajime Sakakita

List of Publications by Year
in descending order

118 papers	1,489 citations	279798 23 h-index	377865 34 g-index
118 all docs	118 docs citations	118 times ranked	1149 citing authors

#	Article	IF	Citations
1	Red blood cell coagulation induced by low-temperature plasma treatment. Archives of Biochemistry and Biophysics, 2016, 605, 95-101.	3.0	93
2	Formation of Membrane-like Structures in Clotted Blood by Mild Plasma Treatment during Hemostasis. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2013, 26, 555-557.	0.3	73
3	Oxygen-doped carbon nanotubes for near-infrared fluorescent labels and imaging probes. Scientific Reports, 2018, 8, 6272.	3.3	67
4	Plasma Blood Coagulation Without Involving the Activation of Platelets and Coagulation Factors. Plasma Processes and Polymers, 2015, 12, 1348-1353.	3.0	57
5	Design concept and confinement prediction of TPE-RX reversed-field pinch device. Fusion Engineering and Design, 1999, 45, 409-419.	1.9	51
6	Plasmaâ€activated medium (PAM) kills human cancerâ€initiating cells. Pathology International, 2018, 68, 23-30.	1.3	50
7	Mode-locking phenomena in the TPE-RX reversed-field pinch plasma. Physics of Plasmas, 1999, 6, 3824-3837.	1.9	49
8	Low temperature plasma equipment applied on surgical hemostasis and wound healings. Journal of Clinical Biochemistry and Nutrition, 2017, 60, 25-28.	1.4	44
9	Nanocrystalline diamond growth in a surface-wave plasma. Diamond and Related Materials, 2011, 20, 833-838.	3.9	43
10	Low-Temperature Graphene Growth by Forced Convection of Plasma-Excited Radicals. Nano Letters, 2019, 19, 739-746.	9.1	37
11	Front-end system of the TPE-RX reversed-field pinch machine. Fusion Engineering and Design, 1999, 45, 421-436.	1.9	35
12	Galectin expression in healing wounded skin treated with low-temperature plasma: Comparison with treatment by electronical coagulation. Archives of Biochemistry and Biophysics, 2016, 605, 86-94.	3.0	34
13	Improved confinement in the TPE-RX RFP by means of the PPCD. Plasma Physics and Controlled Fusion, 2002, 44, 335-349.	2.1	29
14	Overview of the RFX fusion science program. Nuclear Fusion, 2011, 51, 094023.	3.5	29
15	Irradiation Experiments on a Mild-Plasma Generator for Medical Applications. Plasma and Fusion Research, 2010, 5, S2117-S2117.	0.7	28
16	Antiâ€Cancer Effects of Nonequilibrium Atmospheric Pressure Plasma on Cancerâ€Initiating Cells in Human Endometrioid Adenocarcinoma Cells. Plasma Processes and Polymers, 2015, 12, 1370-1376.	3.0	27
17	Overview of the RFX-mod fusion science activity. Nuclear Fusion, 2017, 57, 102012.	3.5	27
18	Increased confinement improvement in a reversed-field pinch using double-pulsed poloidal current drive. Physics of Plasmas, 2003, 10, 2925-2931.	1.9	26

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19	Optical and electrical diagnostics for the investigation of edge turbulence in fusion plasmas. Review of Scientific Instruments, 2004, 75, 4152-4154.	1.3	26
20	Spectroscopy of reactive species produced by low-energy atmospheric-pressure plasma on conductive target material surface. Journal Physics D: Applied Physics, 2016, 49, 394001.	2.8	26
21	The first results of TPE-RX, a large reversed-field pinch machine. Plasma Physics and Controlled Fusion, 1999, 41, 255-263.	2.1	25
22	Extensive magnetic measurement system for TPE-RX. Fusion Engineering and Design, 1999, 46, 47-63.	1.9	24
23	Improved Particle Confinement in Transition from Multiple-Helicity to Quasi-Single-Helicity Regimes of a Reversed-Field Pinch. Physical Review Letters, 2006, 97, 175001.	7.8	24
24	On the statistics of edge fluctuations: comparative study between various fusion devices. Plasma Physics and Controlled Fusion, 2009, 51, 055013.	2.1	24
25	Microscopic Deformation of Tungsten Surfaces by High Energy and High Flux Helium/Hydrogen Particle Bombardment with Short Pulses. Plasma and Fusion Research, 2010, 5, 012-012.	0.7	23
26	Histological and Nuclear Medical Comparison of Inflammation After Hemostasis with Nonâ€Thermal Plasma and Thermal Coagulation. Plasma Processes and Polymers, 2015, 12, 1338-1342.	3.0	22
27	Systematic diagnostics of the electrical, optical, and physicochemical characteristics of low-temperature atmospheric-pressure helium plasma sources. Journal Physics D: Applied Physics, 2019, 52, 165202.	2.8	21
28	Fast ion confinement and stability in a neutral beam injected reversed field pinch. Physics of Plasmas, 2013, 20, .	1.9	19
29	Overview of the RFX-mod contribution to the international Fusion Science Program. Nuclear Fusion, 2015, 55, 104012.	3.5	18
30	Quasi-single helicity state at shallow reversal in TPE-RX reversed-field pinch experiment. Physics of Plasmas, 2005, 12, 112501.	1.9	17
31	Overview of the RFX-mod fusion science programme. Nuclear Fusion, 2013, 53, 104018.	3.5	17
32	Evolution process of the mode wall-locking and phase-locking in a reversed-field pinch plasma. Physics of Plasmas, 2001, 8, 1625-1635.	1.9	15
33	Microwave-excited atmospheric pressure plasma jet with wide aperture for the synthesis of carbon nanomaterials. Japanese Journal of Applied Physics, 2015, 54, 01AA02.	1.5	15
34	Observations of multiple stationary striation phenomena in an atmospheric pressure neon plasma jet. Japanese Journal of Applied Physics, 2016, 55, 010301.	1.5	15
35	Bending and turbulent enhancement phenomena of neutral gas flow containing an atmospheric pressure plasma by applying external electric fields measured by schlieren optical method. Japanese Journal of Applied Physics, 2016, 55, 01AB08.	1.5	14
36	Neutral beam heating of a RFP plasma in MST. Physics of Plasmas, 2012, 19, .	1.9	12

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37	Investigation of plasma edge turbulence using a gas-puff imaging system in the reversed-field pinch device TPE-RX. Plasma Physics and Controlled Fusion, 2007, 49, 129-143.	2.1	11
38	Study of the Power Distribution of Each Impedance in the Electrical Circuit of Ionized Gas Coagulation Equipment. Plasma Medicine, 2015, 5, 189-203.	0.6	11
39	An empirical scaling law for improved confinement in reversed-field pinch plasmas. Nuclear Fusion, 2005, 45, 138-142.	3.5	10
40	Development of Ion Beam Sources with Wide Beam Energy and Current Ranges. Japanese Journal of Applied Physics, 2006, 45, 8531-8536.	1.5	10
41	A low-power nitriding technique utilizing a microwave-excited radical flow. Japanese Journal of Applied Physics, 2016, 55, 06HC05.	1.5	10
42	Dependence of Plasma Plume Formation on Applied Voltage Waveform in Atmospheric-Pressure Plasma. IEEE Transactions on Plasma Science, 2016, 44, 107-112.	1.3	10
43	Measurements of emission-propagation phenomena in low-energy atmospheric-pressure helium plasma. Plasma Sources Science and Technology, 2018, 27, 05LT02.	3.1	10
44	Soft x-ray tomography system for the toroidal pinch experiment-RX reversed-field pinch. Review of Scientific Instruments, 2004, 75, 4004-4006.	1.3	9
45	Striation phenomena in a low temperature atmospheric pressure neon plasma jet by optical emission spectroscopy. Physics of Plasmas, 2020, 27, .	1.9	9
46	Deuterium Ice Pellet Injection during Pulsed Poloidal Current Drive Operation in Toroidal Pinch Experiment-RX Reversed-Field Pinch Device. Japanese Journal of Applied Physics, 2006, 45, L1124-L1126.	1.5	8
47	Investigation of turbulence in reversed field pinch plasma by using microwave imaging reflectometry. Physics of Plasmas, 2011, 18, 102315.	1.9	8
48	Development of low-energy and high-current-density ion beam system. Review of Scientific Instruments, 2012, 83, 02B708.	1.3	8
49	Effect of plasma-activated medium on the decrease of tumorigenic population in lymphoma. Pathology Research and Practice, 2017, 213, 773-777.	2.3	8
50	Real-time monitoring of surface passivation of crystalline silicon during growth of amorphous and epitaxial silicon layer. Journal of Applied Physics, 2020, 128, 033302.	2.5	8
51	Reviews of low-temperature atmospheric pressure plasma for studying hemostasis and international standardization. Japanese Journal of Applied Physics, 2021, 60, 020502.	1.5	8
52	Phase- and Wall-Locked Modes Found in a Large Reversed-Field Pinch Machine, TPE-RX. Japanese Journal of Applied Physics, 1999, 38, L780-L782.	1.5	7
53	Measurement of Plasma Radiation Fraction and Impurity Line Spectra in the Reversed Field Pinch Device, TPE-RX. Japanese Journal of Applied Physics, 2004, 43, 1159-1163.	1.5	7
54	Potential formation on dielectric surface by an atmospheric pressure helium plasma jet. Japanese Journal of Applied Physics, 2019, 58, 090906.	1.5	7

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55	Electrical characteristics of a low-temperature, atmospheric-pressure helium plasma jet. AIP Advances, 2021, 11, .	1.3	7
56	Figure of Merit for the Improvement of Confinement in Pulsed Poloidal Current Drive Experiments in Reversed-Field Pinch Devices. Journal of the Physical Society of Japan, 2002, 71, 2574-2575.	1.6	6
57	Overview of diagnostics system for the TPE-RX reversed-field pinch. Review of Scientific Instruments, 2003, 74, 1563-1566.	1.3	6
58	Soft x-ray measurement of the toroidal pinch experiment RX reversed field pinch plasma using transition edge sensor calorimeter. Review of Scientific Instruments, 2006, 77, 043104.	1.3	6
59	Suppression of Radial Divergence of Extremely Low Energy Ion Beam by an Electron Beam Injection to a Grounded Electrode. Japanese Journal of Applied Physics, 2013, 52, 066001.	1.5	6
60	Study on Thermal Characteristics of Ionized Gas Coagulation Equipment. Plasma Medicine, 2015, 5, 99-108.	0.6	6
61	The First Plasma Rotation Measurement in a Large Reversed-Field Pinch Device, TPE-RX. Journal of the Physical Society of Japan, 2000, 69, 635-638.	1.6	6
62	Operating Conditions to Achieve High Performance in PPCD in a Reversed-Field Pinch Plasma. Journal of the Physical Society of Japan, 2003, 72, 3297-3298.	1.6	6
63	Electron Density Control Using Fast Gas Puffing in Reversed-field Pinch Device, TPE-RX. Japanese Journal of Applied Physics, 2004, 43, L1184-L1186.	1.5	5
64	Role of locked mode in the effectiveness of pulsed poloidal current drive regime in the reversed-field pinch. Physics of Plasmas, 2005, 12, 100703.	1.9	5
65	Electron density profile measurements at a self-focusing ion beam with high current density and low energy extracted through concave electrodes. Review of Scientific Instruments, 2014, 85, 02A726.	1.3	5
66	Self-focusing of a high current density ion beam extracted with concave electrodes in a low energy region around 150 eV. Review of Scientific Instruments, 2014, 85, 02A728.	1.3	5
67	Effects of N2 and NH3 plasma exposure on the surface topography of p-GaN under quasi-atmospheric pressure. Surfaces and Interfaces, 2019, 14, 92-97.	3.0	5
68	Role of Hydrogen in Catalyst Activation for Plasma-Based Synthesis of Carbon Nanotubes. ACS Omega, 2021, 6, 18763-18769.	3.5	5
69	High-Beta Plasma Confinement in TPE-RX During Pulsed Poloidal Current Drive Operation in Reversed-Field Pinch Plasma. Plasma and Fusion Research, 2007, 2, 050-050.	0.7	5
70	High Beta and High Density Operation in TPE-RX. Plasma and Fusion Research, 2009, 4, 022-022.	0.7	5
71	Quantitative Evidence for the Dependence of Highly Crystalline Single Wall Carbon Nanotube Synthesis on the Growth Method. Nanomaterials, 2021, 11, 3461.	4.1	5
72	Multipoint vessel-temperature monitoring system for TPE-RX. Fusion Engineering and Design, 1999, 46, 65-76.	1.9	4

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73	Effects of shell configuration on the performance of reversed field pinch plasmas. Nuclear Fusion, 2000, 40, 223-244.	3.5	4
74	Measurement of Fast Magnetic Fluctuations in Edge Region of TPE-RX Reversed-Field Pinch Plasma. Japanese Journal of Applied Physics, 2007, 46, 6831-6833.	1.5	4
75	Comparison of particle transport properties in TPE-RX standard and PPCD plasmas. Plasma Physics and Controlled Fusion, 2009, 51, 065012.	2.1	4
76	Integration design of TPE-RX Neutral Beam Injector on RFX-mod. Fusion Engineering and Design, 2011, 86, 772-775.	1.9	4
77	Structural design and manufacturing of TPE-RX vacuum vessel. Fusion Engineering and Design, 1999, 46, 99-113.	1.9	3
78	Confinement Improvement in a Single Helical State of the Reversed Field Pinch Plasma on TPE-1RM20. Journal of the Physical Society of Japan, 2000, 69, 2375-2378.	1.6	3
79	Field error and its effect on the plasma performance in TPE-RX, reversed-field pinch device. Plasma Physics and Controlled Fusion, 2000, 42, 71-82.	2.1	3
80	Spectroscopic system using image magnifying optics for plasma velocity and ion temperature measurement. Review of Scientific Instruments, 2003, 74, 2111-2114.	1.3	3
81	Control of the Locked Mode in a Reversed-Field Pinch Plasma Using a Rotating Toroidal Field. Japanese Journal of Applied Physics, 2003, 42, 5274-5279.	1.5	3
82	Characteristics of global confinement properties in TPE-series reversed-field pinch devices. Nuclear Fusion, 2003, 43, 1787-1800.	3.5	3
83	Reduction of Thermal Wall Load by Gas Puffing in Reversed-Field Pinch Device, TPE-RX. Japanese Journal of Applied Physics, 2004, 43, 8292-8299.	1.5	3
84	Correlation of electrostatic fluctuation and reversal of toroidal field in the reversed-field pinch plasma. Physics of Plasmas, 2011, 18, 064505.	1.9	3
85	Improved confinement region without large magnetohydrodynamic activity in TPE-RX reversed-field pinch plasma. Physics of Plasmas, 2014, 21, 114502.	1.9	3
86	Measurements of nitrogen atom density in a microwaveâ€excited plasma jet produced under moderate pressures. IEEJ Transactions on Electrical and Electronic Engineering, 2020, 15, 1281-1287.	1.4	3
87	Effects of electric charges on serum protein aggregation induced by a low temperature atmospheric pressure plasma. Journal Physics D: Applied Physics, 2021, 54, 215201.	2.8	3
88	Dynamics of flow in albumin solution treated by low-temperature atmospheric pressure helium plasma jet. AIP Advances, 2020, 10, 125216.	1.3	3
89	Frequency Dependence of Fast Magnetic Fluctuations in TPE-RX Reversed-Field Pinch Plasma. Plasma and Fusion Research, 2008, 3, 060-060.	0.7	3
90	Spatially resolved bolometric measurement and electron temperature measurement using diode arrays. Review of Scientific Instruments, 2004, 75, 4007-4009.	1.3	2

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91	The Monte Carlo Simulation of a 1-MW Neutral Beam Injector on RFX-Mod. IEEE Transactions on Plasma Science, 2012, 40, 1042-1052.	1.3	2
92	High current density ion beam obtained by a transition to a highly focused state in extremely low-energy region. Review of Scientific Instruments, 2015, 86, 113303.	1.3	2
93	Comprehensive characterization of low-damaged GaN surface exposed to NH3 plasma toward plasma-induced metalorganic chemical vapor deposition. Applied Surface Science, 2022, 591, 153150.	6.1	2
94	Ammonia-free epitaxy of single-crystal InN using a plasma-integrated gas-injection module. Applied Materials Today, 2022, 27, 101489.	4.3	2
95	Plasma and Mode Rotations in a Reversed-Field Pinch Device, TPE-1RM20. Japanese Journal of Applied Physics, 1999, 38, 4187-4193.	1.5	1
96	Behavior of Impurity Ion Velocities during the Pulsed Poloidal Current Drive in the Madison Symmetric Torus Reversed-Field Pinch. Japanese Journal of Applied Physics, 2003, 42, L505-L507.	1.5	1
97	Magnetohydrodynamic Simulation of Pulsed Poloidal Current Drive in Reversed Field Pinch Plasmas. Journal of the Physical Society of Japan, 2005, 74, 930-940.	1.6	1
98	Shunting arc plasma source for pure carbon ion beam. Review of Scientific Instruments, 2012, 83, 02A510.	1.3	1
99	Variation of Magnetic Fluctuation due to Gas Puffing in Edge Region of Reversed-Field Pinch Plasma. Journal of the Physical Society of Japan, 2016, 85, 094501.	1.6	1
100	Effects of a dielectric material in an ion source on the ion beam current density and ion beam energy. Review of Scientific Instruments, 2016, 87, 02B930.	1.3	1
101	Graphene Creating Next-Generation Electronic Devices: Challenges to the Low Temperature Growth Using Plasmas. Journal of the Institute of Electrical Engineers of Japan, 2021, 141, 219-222.	0.0	1
102	A New Method of Measuring the Magnetic Field in Hot Plasmas Using Helium Neutral Beam Injection. Plasma and Fusion Research, 2008, 3, 015-015.	0.7	1
103	Development of High-Power-Density Ion Beam System with High-Repetition Pulse Operation. Plasma and Fusion Research, 2010, 5, S2105-S2105.	0.7	1
104	Albumin aggregation using low-temperature atmospheric pressure helium plasma jet in argon and air atmosphere. Japanese Journal of Applied Physics, 2022, 61, SI1016.	1.5	1
105	Potential formation on floating metal plate treated by low-temperature atmospheric pressure plasma jet. Journal of Electrostatics, 2022, 117, 103715.	1.9	1
106	Dependence of deuterium line-shape on the insertion depth of BN and C limiters in the TPE-1RM20 reversed field pinch plasma. Journal of Nuclear Materials, 1999, 271-272, 415-417.	2.7	0
107	Design of equilibrium field control coil system of TPE-RX. Fusion Engineering and Design, 2001, 54, 263-273.	1.9	0
108	Measurement of Vacuum Vessel Current and its Relation to Locked Mode in a Reversed-field Pinch Device, TPE-RX. Japanese Journal of Applied Physics, 2002, 41, 330-335.	1.5	0

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109	Data acquisition and analysis system for the TPE-RX reversed-field pinch. Review of Scientific Instruments, 2003, 74, 1778-1782.	1.3	0
110	Self-Organization Process with Dynamo Activity in Ultra-Lowqand Reversed-Field-Pinch Plasmas. Japanese Journal of Applied Physics, 2003, 42, 5765-5768.	1.5	0
111	Thermal wall load control using fast gas puffing in the TPE-RX reversed-field pinch. Journal of Nuclear Materials, 2005, 337-339, 505-509.	2.7	0
112	Quasi-steady carbon plasma source for neutral beam injector. Review of Scientific Instruments, 2014, 85, 02C309.	1.3	0
113	Plasmatreatment induces blood clot formation; protein aggregation and hemolysis. , 2016, , .		0
114	Magnetic fluctuation behavior during the transition between quasi-single helicity and multi helicity states in the reversed-field pinch plasma. Physics of Plasmas, 2016, 23, 112507.	1.9	0
115	Requirements and modelling of fast particle injection in RFX-mod tokamak plasmas. Fusion Engineering and Design, 2017, 123, 349-352.	1.9	0
116	Measurements of beam current density and space potential in a highly focused ion beam of extremely low energy. Plasma Sources Science and Technology, 2019, 28, 065010.	3.1	0
117	Growth inhibition effect on Trypanosoma brucei gambiense by the oxidative stress supplied from low-temperature plasma at atmospheric pressure. Japanese Journal of Applied Physics, 2021, 60, 020601.	1.5	0
118	(Invited) Novel Synthesis Procedure for Endohedral-Fullerenes Using Laser Ablation Plasma from Solid Material and Vaporized Fullerenes. ECS Meeting Abstracts, 2020, MA2020-01, 800-800.	0.0	0