Katsunori Ikeda

List of Publications by Year
in descending order

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56	1,011	394421	434195
papers	citations	19 h-index	31 g-index

56	56	56	527
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Extension of the operational regime of the LHD towards a deuterium experiment. Nuclear Fusion, 2017, 57, 102023.	3.5	116
2	High-power and long-pulse injection with negative-ion-based neutral beam injectors in the Large Helical Device. Nuclear Fusion, 2006, 46, S199-S210.	3.5	104
3	High Performance of Neutral Beam Injectors for Extension of LHD Operational Regime. Fusion Science and Technology, 2010, 58, 482-488.	1.1	66
4	Engineering prospects of negative-ion-based neutral beam injection system from high power operation for the large helical device. Nuclear Fusion, 2003, 43, 692-699.	3.5	51
5	Negative hydrogen ion source development for large helical device neutral beam injector (invited). Review of Scientific Instruments, 2000, 71, 1225-1230.	1.3	44
6	Spatial distribution of the charged particles and potentials during beam extraction in a negative-ion source. Review of Scientific Instruments, 2012, 83, 02B116.	1.3	43
7	Integrated discharge scenario for high-temperature helical plasma in LHD. Nuclear Fusion, 2015, 55, 113020.	3.5	37
8	In situcalibration of neutral beam port-through power and estimation of neutral beam deposition on LHD. Review of Scientific Instruments, 2001, 72, 590-593.	1.3	36
9	High power beam injection using an improved negative ion source for the large helical device. Review of Scientific Instruments, 2004, 75, 1847-1850.	1.3	30
10	Identification of the extraction structure of H^{â^'}ions by H_{Î±}imaging spectroscopy. New Journal of Physics, 2013, 15, 103026.	2.9	28
11	Beamlet characteristics in the accelerator with multislot grounded grid. Review of Scientific Instruments, 2010, 81, 02B117.	1.3	27
12	Extension of the operational regime in high-temperature plasmas and the dynamic-transport characteristics in the LHD. Nuclear Fusion, 2013, 53, 073034.	3.5	26
13	Recent results from deuterium experiments on the large helical device and their contribution to fusion reactor development. Nuclear Fusion, 2022, 62, 042019.	3.5	25
14	Compensation of beam deflection due to the magnetic field using beam steering by aperture displacement technique in the multibeamlet negative ion source. Review of Scientific Instruments, 2001, 72, 3237-3244.	1.3	24
15	Ion beam transport: modelling and experimental measurements on a large negative ion source in view of the ITER heating neutral beam. Nuclear Fusion, 2017, 57, 016025.	3.5	24
16	Exploring deuterium beam operation and the behavior of the co-extracted electron current in a negative-ion-based neutral beam injector. Nuclear Fusion, 2019, 59, 076009.	3.5	23
17	Cavity Ring-Down System for Density Measurement of Negative Hydrogen Ion on Negative Ion Source. AIP Conference Proceedings, 2011, , .	0.4	22
18	Cavity Ringdown Technique for negative-hydrogen-ion measurement in ion source for neutral beam injector. Journal of Instrumentation, 2016, 11, C03018-C03018.	1.2	22

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19	Neutral beam injection with an improved accelerator for LHD. Review of Scientific Instruments, 2008, 79, 02C107.	1.3	21
20	Development of intense hydrogen-negative-ion source for neutral beam injectors at NIFS. AIP Conference Proceedings, 2013, , .	0.4	19
21	Charged particle flows in the beam extraction region of a negative ion source for NBI. Review of Scientific Instruments, 2016, 87, 02B103.	1.3	19
22	High Power Neutral Beam Injection in LHD. Plasma Science and Technology, 2006, 8, 24-27.	1.5	13
23	Response of Hâ¯ ions to extraction field in a negative hydrogen ion source. Fusion Engineering and Design, 2017, 123, 481-484.	1.9	12
24	First results of deuterium beam operation on neutral beam injectors in the large helical device. AIP Conference Proceedings, 2018, , .	0.4	12
25	Extension of high power deuterium operation of negative ion based neutral beam injector in the large helical device. Review of Scientific Instruments, 2019, 90, 113322.	1.3	12
26	Characterisation of negative ion beam focusing based on phase space structure. New Journal of Physics, 2020, 22, 023017.	2.9	11
27	Hâ¯ density profile and response to applied bias and extraction voltages in Hâ¯ source. AIP Conference Proceedings, 2013, , .	0.4	10
28	Spatial distribution of negative ion density near the plasma grid. Review of Scientific Instruments, 2020, 91, 013512.	1.3	10
29	Improvement of a large negative ion source for the Large Helical Device neutral beam injector. Review of Scientific Instruments, 2002, 73, 1087-1089.	1.3	9
30	Comparison of Optical Emission Spectroscopy and Cavity Ring-Down Spectroscopy in Large-Scaled Negative-Ion Source. AIP Conference Proceedings, 2011, , .	0.4	9
31	Characteristics of plasma grid bias in large-scaled negative ion source. Review of Scientific Instruments, 2014, 85, 02B131.	1.3	8
32	Study of back streaming ion using a slot-type grounded grid in hydrogen negative-ion source. AIP Conference Proceedings, 2017, , .	0.4	8
33	Challenges toward improvement of deuterium-injection power in the Large Helical Device negative-ion-based NBIs. Nuclear Fusion, 2022, 62, 056016.	3.5	8
34	Research progress on ionic plasmas generated in an intense hydrogen negative ion source. AIP Conference Proceedings, 2015, , .	0.4	7
35	Improvement of accelerator of negative ion source on the Large Helical Device. Review of Scientific Instruments, 2016, 87, 02B321.	1.3	7
36	Development of a dual beamlet monitor system for negative ion beam measurements. Review of Scientific Instruments, 2018, 89, 123303.	1.3	7

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37	Response of beam focusing to plasma fluctuation in a filament-arc-type negative ion source. Japanese Journal of Applied Physics, 2020, 59, SHHA01.	1.5	7
38	Spatial Distributions of Charged Particles and Plasma Potential before and during Beam Extraction in a Negative Hydrogen Ion Source for NBI. Plasma and Fusion Research, 2015, 10, 3405016-3405016.	0.7	6
39	High Power Heating and Steady State Operation in the Large Helical Device. Fusion Science and Technology, 2015, 68, 216-224.	1.1	6
40	Laser photodetachment diagnostics of a 1/3-size negative hydrogen ion source for NBI. AIP Conference Proceedings, 2015, , .	0.4	6
41	Physics-based investigation of negative ion behavior in a negative-ion-rich plasma using integrated diagnostics. AIP Conference Proceedings, 2017, , .	0.4	6
42	Demonstration of Beam Optics Optimization Using Plasma Grid Bias in a Negative Ion Source. Plasma and Fusion Research, 2018, 13, 1205110-1205110.	0.7	5
43	Upgraded millimeter-wave interferometer for measuring the electron density during the beam extraction in the negative ion source. Review of Scientific Instruments, 2016, 87, 11E105.	1.3	4
44	Spatiotemporal oscillation of an ion beam extracted from a potential-oscillating plasma source. New Journal of Physics, 2019, 21, 093043.	2.9	4
45	Damage to N-NBI systems due to positive ion back-streaming. AIP Conference Proceedings, 2021, , .	0.4	4
46	Study of correlation between plasma parameter and beam optics. Review of Scientific Instruments, 2020, 91, 023503.	1.3	4
47	Evaluation of negative ion distribution changes by image processing diagnostic. AIP Conference Proceedings, 2015, , .	0.4	3
48	Deuterium experiment with large-scale negative ion source for large helical device. Japanese Journal of Applied Physics, 2020, 59, SHHC09.	1.5	3
49	Simultaneous Measurements of Proton Ratio and Beam Divergence of Positive-Ion-Based Neutral Beam in the Large Helical Device. Plasma and Fusion Research, 2007, 2, S1051-S1051.	0.7	2
50	Development of the directional Langmuir probe for the charged particle flow measurement. AIP Conference Proceedings, 2021, , .	0.4	1
51	Validation of the distribution of stripping loss neutrals in the accelerator of the negative ion source. AIP Conference Proceedings, 2021, , .	0.4	0
52	Abundance ratio of multiple velocity distribution components in a single negative ion beamlet produced by a cesium-seeded negative ion source. AIP Advances, 2022, 12, .	1.3	0
53	Difference of co-extracted electron current and beam acceleration in a negative ion source with hydrogen-isotope ions. Journal of Physics: Conference Series, 2022, 2244, 012060.	0.4	0
54	Beam instability in the vicinity of beam extraction region of negative ion source. Journal of Physics: Conference Series, 2022, 2244, 012043.	0.4	0

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55	Study of the charged particle flow near the plasma grid in negative ion source. Journal of Physics: Conference Series, 2022, 2244, 012059.	0.4	0
56	Comparison of ion source plasma responses to extraction grid bias between hydrogen and deuterium operations in NIFS-RNIS. Journal of Physics: Conference Series, 2022, 2244, 012046.	0.4	0