Yong-Seok Hwang

List of Publications by Citations

68 papers	503 citations	11 h-index	19 g-index
80 ext. papers	571 ext. citations	2 avg, IF	3.61 L-index

#	Paper	IF	Citations
68	Electron density and temperature measurement method by using emission spectroscopy in atmospheric pressure nonequilibrium nitrogen plasmas. *Physics of Plasmas*, **2006**, 13, 093501	2.1	51
67	Design Features and Commissioning of the Versatile Experiment Spherical Torus (VEST) at Seoul National University. *Plasma Science and Technology*, **2013**, 15, 244-251	1.5	45
66	Properties of dc helicity injected tokamak plasmas. *Physics of Fluids B*, **1990**, 2, 1415-1420		30
65	Global model analysis of negative ion generation in low-pressure inductively coupled hydrogen plasmas with bi-Maxwellian electron energy distributions. *Physics of Plasmas*, **2015**, 22, 033506	2.1	29
64	Numerical model for electrical explosion of copper wires in water. *Journal of Applied Physics*, **2016**, 120, 203301	2.5	29
63	Triton burnup measurements in KSTAR using a neutron activation system. *Review of Scientific Instruments*, **2016**, 87, 11D828	1.7	18
62	Effects of discharge chamber length on the negative ion generation in volume-produced negative hydrogen ion source. *Review of Scientific Instruments*, **2014**, 85, 02B119	1.7	17
61	Development of a compact helicon ion source for neutron generators. *Review of Scientific Instruments*, **2004**, 75, 1878-1880	1.7	17
60	Thermodynamics of a magnetically expanding plasma with isothermally behaving confined electrons. *New Journal of Physics*, **2018**, 20, 063033	2.9	16
59	Development of a High-Current Helicon Ion Source With High Monatomic Fraction for the Application of Neutron Generators. *IEEE Transactions on Plasma Science*, **2007**, 35, 1476-1479	1.3	15
58	Efficient pre-ionization by direct X-B mode conversion in VEST. *Physics of Plasmas*, **2017**, 24, 012103	2.1	12
57	Design of a single-channel millimeter-wave interferometer system for Korea Superconducting Tokamak Advanced Research. *Review of Scientific Instruments*, **2003**, 74, 1613-1616	1.7	11
56	Correlation of the peak pressure generated by an underwater spark discharge with energy absorption in a spark channel. *Journal of the Korean Physical Society*, **2015**, 66, 1845-1851	0.6	10
55	Time-dependent kinetic analysis of trapped electrons in a magnetically expanding plasma. *Plasma Sources Science and Technology*, **2019**, 28, 07LT01	3.5	10
54	Characterization of electron kinetics regime with electron energy probability functions in inductively coupled hydrogen plasmas. *Physics of Plasmas*, **2016**, 23, 023511	2.1	9
53	A simple spectroscopic method to determine the degree of dissociation in hydrogen plasmas with wide-range spectrometer. *Review of Scientific Instruments*, **2016**, 87, 053503	1.7	9
52	Underwater spark discharge with long transmission line for cleaning horizontal wells. *Journal of Applied Physics*, **2017**, 121, 243302	2.5	9

51	Thermodynamic Properties and Electrical Conductivity of Water Plasma. *Contributions To Plasma Physics*, **2013**, 53, 330-335	1.4	9
50	Design of a far-infrared interferometer/polarimeter system for Korea Superconducting Tokamak Advanced Research. *Review of Scientific Instruments*, **2004**, 75, 3402-3404	1.7	9
49	Newly developed double neural network concept for reliable fast plasma position control. *Review of Scientific Instruments*, **2001**, 72, 513-516	1.7	9
48	Evidence of a turbulent ExB mixing avalanche mechanism of gas breakdown in strongly magnetized systems. *Nature Communications*, **2018**, 9, 3523	17.4	9
47	Lethal Effects of Pulsed High-Voltage Discharge on Marine Plankton and Escherichia coli. *Water, Air, and Soil Pollution*, **2010**, 213, 161-169	2.6	8
46	An improved Abel inversion method modified for tangential interferometry in tokamak. *Review of Scientific Instruments*, **2004**, 75, 3408-3410	1.7	8
45	Magnetic confinement and instability in partially magnetized plasma. *Plasma Sources Science and Technology*, **2021**, 30, 025011	3.5	8
44	Coupling study of fast wave near the lower hybrid frequency range in VEST. *Physics of Plasmas*, **2018**, 25, 082511	2.1	8
43	Enhanced shock wave generation via pre-breakdown acceleration using water electrolysis in negative streamer pulsed spark discharges. *Applied Physics Letters*, **2018**, 112, 134101	3.4	7
42	Optimization of plasma parameters with magnetic filter field and pressure to maximize H? ion density in a negative hydrogen ion source. *Review of Scientific Instruments*, **2016**, 87, 02B136	1.7	7
41	New method of high brightness ion extraction based on bias electrode. *Review of Scientific Instruments*, **2006**, 77, 03B507	1.7	7
40	Development of a novel radio-frequency negative hydrogen ion source in conically converging configuration. *Review of Scientific Instruments*, **2014**, 85, 02B112	1.7	6
39	Beam emittance measurements of transformer coupled plasma ion source for focused ion beam. *Review of Scientific Instruments*, **2004**, 75, 1681-1683	1.7	6
38	One-dimensional full wave simulation on XB mode conversion in electron cyclotron heating. *Physics of Plasmas*, **2014**, 21, 062108	2.1	5
37	Electron cyclotron resonance heating by magnetic filter field in a negative hydrogen ion source. *Review of Scientific Instruments*, **2016**, 87, 02B117	1.7	4
36	Operating conditions for the generation of stable anode spot plasma in front of a positively biased electrode. *Review of Scientific Instruments*, **2014**, 85, 02A508	1.7	4
35	Development of internal magnetic probe for current density profile measurement in Versatile Experiment Spherical Torus. *Review of Scientific Instruments*, **2014**, 85, 11D809	1.7	4
34	H□ion beam extraction from a transformer coupled plasma source with triode extraction system. *Review of Scientific Instruments*, **2006**, 77, 03A536	1.7	4

33	Heating and current drive by fast wave in lower hybrid range of frequency on Versatile Experiment Spherical Torus. *Fusion Engineering and Design*, **2016**, 109-111, 707-711	1.7	4
32	Initial operation results of NE213 scintillation detector for time-resolved measurements on triton burnup in KSTAR. *Review of Scientific Instruments*, **2018**, 89, 10I118	1.7	4
31	Characterization of photo-multiplier tube as ex-vessel radiation detector in tokamak. *Review of Scientific Instruments*, **2017**, 88, 093503	1.7	3
30	Synthesis of carbon-incorporated titanium oxide nanocrystals by pulsed solution plasma: electrical, optical investigation and nanocrystals analysis. *RSC Advances*, **2015**, 5, 9497-9502	3.7	3
29	Development of a radio frequency ion source with multi-helicon plasma injectors for neutral beam injection system of Versatile Experiment Spherical Torus. *Review of Scientific Instruments*, **2014**, 85, 02B318	1.7	3
28	Development of a radio-frequency-driven ion source of the diagnostic neutral beam for the Hanbit device. *Review of Scientific Instruments*, **2002**, 73, 1068-1070	1.7	3
27	Feasibility study of a new negative ion source using a transformer coupled plasma source. *Review of Scientific Instruments*, **2000**, 71, 943-945	1.7	3
26	Development of a filtered AXUV diode array for X-pinch soft x-ray spectra in the energy range of 1-10 keV. *Review of Scientific Instruments*, **2021**, 92, 053509	1.7	3
25	A modular X-pinch device for versatile X-pinch experiments at Seoul National University. *Review of Scientific Instruments*, **2021**, 92, 053533	1.7	3
24	Improved common-path fast-scanning heterodyne interferometer system as potential dense-plasma diagnostics. *Review of Scientific Instruments*, **2004**, 75, 3417-3419	1.7	2
23	Non-Maxwellian Electron Energy Probability Functions in an Indirectly Heated Cathode Bernas Source. *Applied Science and Convergence Technology*, **2020**, 29, 167-169	0.8	2
22	Time-Resolved Analysis of SF6 Arc Plasmas in a Laboratory Model Chamber for Circuit Breaker. *IEEE Transactions on Plasma Science*, **2020**, 48, 3968-3974	1.3	2
21	Simple and accurate method of diamagnetic flux measurement in Versatile Experimental Spherical Torus (VEST). *Review of Scientific Instruments*, **2018**, 89, 103508	1.7	2
20	Design of an imaging Fabry-Pérot interferometer for the VEST edge plasma temperature measurement. *Review of Scientific Instruments*, **2018**, 89, 10D108	1.7	1
19	Preface: Proceedings of the 12th International Conference on Ion Sources. Jeju, Korea, 26-31 August 2007. *Review of Scientific Instruments*, **2008**, 79, 02A101	1.7	1
18	Development of a Cylindrical Neutron Generator using RF-driven Plasma **2006**,		1
17	High-current ion source development for the Korea Multipurpose Accelerator Complex. *Review of Scientific Instruments*, **2000**, 71, 969-971	1.7	1
16	Data analysis scheme for correcting general misalignments of an optics configuration for a voltage measurement system based on the Pockels electro-optic effect. *Review of Scientific Instruments*, **2021**, 92, 043105	1.7	1

15	Electric potential in partially magnetized E □B discharges. *AIP Advances*, **2021**, 11, 085113	1.5	1
14	Modified propagation path and expanded coupling regime of lower hybrid fast wave by n ||-upshift via wave scattering in VEST. *Physics of Plasmas*, **2019**, 26, 012506	2.1	0
13	Deep learning-based Pulse Height Estimation for Separation of Pile-up Pulses from NaI(Tl) Detector. *IEEE Transactions on Nuclear Science*, **2022**, 1-1	1.7	0
12	Exploring the nonextensive thermodynamics of partially ionized gas in magnetic field. *Physical Review E*, **2021**, 104, 045202	2.4	0
11	Measurement on the electrical conductivity of copper along the binodal curve in warm dense regime. *Applied Physics Letters*, **2021**, 119, 174102	3.4	0
10	Radial profile measurement with an improved 1 kHz Thomson scattering system on Versatile Experiment Spherical Torus. *Review of Scientific Instruments*, **2021**, 92, 043549	1.7	0
9	Improved gating device of time-of-flight ion mass analyzer for ion sources. *Review of Scientific Instruments*, **2019**, 90, 033305	1.7	
8	Investigation of helium ion production in constricted direct current plasma ion source with layered-glows. *Review of Scientific Instruments*, **2014**, 85, 02C105	1.7	
7	Study on Discharge Characteristics of a Cylindrical Inertial Electrostatic Confinement (IEC) Device for High-Yield Fusion Sources. *Fusion Science and Technology*, **2011**, 60, 107-111	1.1	
6	Electric field effect on the optically-pumped far-infrared laser. *Applied Physics B: Lasers and Optics*, **2008**, 93, 575-582	1.9	
5	Measurement of the Neutron Energy Spectra by Using Organic Scintillators at the Beam Dump of the 100-MeV Proton Linear Accelerator in the KOMAC. *Journal of the Korean Physical Society*, **2020**, 77, 414-417	0.6	
4	Development of an ultrafast charge exchange spectroscopy system on the KSTAR tokamak. *Review of Scientific Instruments*, **2021**, 92, 053525	1.7	
3	Electron density profile measurements from hydrogen line intensity ratio method in Versatile Experiment Spherical Torus. *Review of Scientific Instruments*, **2016**, 87, 11E540	1.7	
2	Identification of kink instability in 3D helical flux ropes at VEST. *Physics of Plasmas*, **2022**, 29, 052112	2.1	
1	Numerical simulation for wire X-pinch plasma on 2D/3D geometry. *Physics of Plasmas*, **2022**, 29, 062701	2.1	