

Yong-Seok Hwang

List of Publications by Year in descending order

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citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Electron density and temperature measurement method by using emission spectroscopy in atmospheric pressure nonequilibrium nitrogen plasmas. <i>Physics of Plasmas</i> , 2006, 13, 093501. | 0.7 | 60 |
| 2 | Design Features and Commissioning of the Versatile Experiment Spherical Torus (VEST) at Seoul National University. <i>Plasma Science and Technology</i> , 2013, 15, 244-251. | 0.7 | 57 |
| 3 | Numerical model for electrical explosion of copper wires in water. <i>Journal of Applied Physics</i> , 2016, 120, . | 1.1 | 42 |
| 4 | Global model analysis of negative ion generation in low-pressure inductively coupled hydrogen plasmas with bi-Maxwellian electron energy distributions. <i>Physics of Plasmas</i> , 2015, 22, 033506. | 0.7 | 33 |
| 5 | Properties of dc helicity injected tokamak plasmas. <i>Physics of Fluids B</i> , 1990, 2, 1415-1420. | 1.7 | 31 |
| 6 | Thermodynamics of a magnetically expanding plasma with isothermally behaving confined electrons. <i>New Journal of Physics</i> , 2018, 20, 063033. | 1.2 | 30 |
| 7 | Triton burnup measurements in KSTAR using a neutron activation system. <i>Review of Scientific Instruments</i> , 2016, 87, 11D828. | 0.6 | 24 |
| 8 | Magnetic confinement and instability in partially magnetized plasma. <i>Plasma Sources Science and Technology</i> , 2021, 30, 025011. | 1.3 | 24 |
| 9 | Development of a compact helicon ion source for neutron generators. <i>Review of Scientific Instruments</i> , 2004, 75, 1878-1880. | 0.6 | 18 |
| 10 | Time-dependent kinetic analysis of trapped electrons in a magnetically expanding plasma. <i>Plasma Sources Science and Technology</i> , 2019, 28, 07LT01. | 1.3 | 18 |
| 11 | Development of a High-Current Helicon Ion Source With High Monatomic Fraction for the Application of Neutron Generators. <i>IEEE Transactions on Plasma Science</i> , 2007, 35, 1476-1479. | 0.6 | 17 |
| 12 | Effects of discharge chamber length on the negative ion generation in volume-produced negative hydrogen ion source. <i>Review of Scientific Instruments</i> , 2014, 85, 02B119. | 0.6 | 17 |
| 13 | Evidence of a turbulent ExB mixing avalanche mechanism of gas breakdown in strongly magnetized systems. <i>Nature Communications</i> , 2018, 9, 3523. | 5.8 | 17 |
| 14 | Efficient pre-ionization by direct X-B mode conversion in VEST. <i>Physics of Plasmas</i> , 2017, 24, 012103. | 0.7 | 15 |
| 15 | Newly developed double neural network concept for reliable fast plasma position control. <i>Review of Scientific Instruments</i> , 2001, 72, 513-516. | 0.6 | 13 |
| 16 | Enhanced shock wave generation via pre-breakdown acceleration using water electrolysis in negative streamer pulsed spark discharges. <i>Applied Physics Letters</i> , 2018, 112, . | 1.5 | 13 |
| 17 | A simple spectroscopic method to determine the degree of dissociation in hydrogen plasmas with wide-range spectrometer. <i>Review of Scientific Instruments</i> , 2016, 87, 053503. | 0.6 | 12 |
| 18 | Underwater spark discharge with long transmission line for cleaning horizontal wells. <i>Journal of Applied Physics</i> , 2017, 121, . | 1.1 | 12 |

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|----|--|-----|-----------|
| 19 | Coupling study of fast wave near the lower hybrid frequency range in VEST. Physics of Plasmas, 2018, 25, 082511. | 0.7 | 12 |
| 20 | Design of a single-channel millimeter-wave interferometer system for Korea Superconducting Tokamak Advanced Research. Review of Scientific Instruments, 2003, 74, 1613-1616. | 0.6 | 11 |
| 21 | Thermodynamic Properties and Electrical Conductivity of Water Plasma. Contributions To Plasma Physics, 2013, 53, 330-335. | 0.5 | 10 |
| 22 | 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. | 0.3 | 10 |
| 23 | An improved Abel inversion method modified for tangential interferometry in tokamak. Review of Scientific Instruments, 2004, 75, 3408-3410. | 0.6 | 9 |
| 24 | Design of a far-infrared interferometer/polarimeter system for Korea Superconducting Tokamak Advanced Research. Review of Scientific Instruments, 2004, 75, 3402-3404. | 0.6 | 9 |
| 25 | New method of high brightness ion extraction based on bias electrode. Review of Scientific Instruments, 2006, 77, 03B507. | 0.6 | 9 |
| 26 | Lethal Effects of Pulsed High-Voltage Discharge on Marine Plankton and Escherichia coli. Water, Air, and Soil Pollution, 2010, 213, 161-169. | 1.1 | 9 |
| 27 | Characterization of electron kinetics regime with electron energy probability functions in inductively coupled hydrogen plasmas. Physics of Plasmas, 2016, 23, 023511. | 0.7 | 9 |
| 28 | 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. | 0.6 | 8 |
| 29 | Measurement on the electrical conductivity of copper along the binodal curve in warm dense regime. Applied Physics Letters, 2021, 119, 174102. | 1.5 | 8 |
| 30 | 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. | 1.0 | 7 |
| 31 | Initial operation results of NE213 scintillation detector for time-resolved measurements on triton burnup in KSTAR. Review of Scientific Instruments, 2018, 89, 10I118. | 0.6 | 7 |
| 32 | A modular X-pinch device for versatile X-pinch experiments at Seoul National University. Review of Scientific Instruments, 2021, 92, 053533. | 0.6 | 7 |
| 33 | Beam emittance measurements of transformer coupled plasma ion source for focused ion beam. Review of Scientific Instruments, 2004, 75, 1681-1683. | 0.6 | 6 |
| 34 | Development of internal magnetic probe for current density profile measurement in Versatile Experiment Spherical Torus. Review of Scientific Instruments, 2014, 85, 11D809. | 0.6 | 6 |
| 35 | Development of a novel radio-frequency negative hydrogen ion source in conically converging configuration. Review of Scientific Instruments, 2014, 85, 02B112. | 0.6 | 6 |
| 36 | Non-Maxwellian Electron Energy Probability Functions in an Indirectly Heated Cathode Bernas Source. Applied Science and Convergence Technology, 2020, 29, 167-169. | 0.3 | 6 |

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|----|--|-----|-----------|
| 37 | 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. | 0.6 | 5 |
| 38 | One-dimensional full wave simulation on XB mode conversion in electron cyclotron heating. Physics of Plasmas, 2014, 21, 062108. | 0.7 | 5 |
| 39 | Radial profile measurement with an improved 1 kHz Thomson scattering system on Versatile Experiment Spherical Torus. Review of Scientific Instruments, 2021, 92, 043549. | 0.6 | 5 |
| 40 | Deep Learning-Based Pulse Height Estimation for Separation of Pile-Up Pulses From NaI(Tl) Detector. IEEE Transactions on Nuclear Science, 2022, 69, 1344-1351. | 1.2 | 5 |
| 41 | H ⁺ ion beam extraction from a transformer coupled plasma source with triode extraction system. Review of Scientific Instruments, 2006, 77, 03A536. | 0.6 | 4 |
| 42 | Operating conditions for the generation of stable anode spot plasma in front of a positively biased electrode. Review of Scientific Instruments, 2014, 85, 02A508. | 0.6 | 4 |
| 43 | Synthesis of carbon-incorporated titanium oxide nanocrystals by pulsed solution plasma: electrical, optical investigation and nanocrystals analysis. RSC Advances, 2015, 5, 9497-9502. | 1.7 | 4 |
| 44 | Electron cyclotron resonance heating by magnetic filter field in a negative hydrogen ion source. Review of Scientific Instruments, 2016, 87, 02B117. | 0.6 | 4 |
| 45 | 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. | 0.6 | 4 |
| 46 | Feasibility study of a new negative ion source using a transformer coupled plasma source. Review of Scientific Instruments, 2000, 71, 943-945. | 0.6 | 3 |
| 47 | 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. | 0.6 | 3 |
| 48 | Improved common-path fast-scanning heterodyne interferometer system as potential dense-plasma diagnostics. Review of Scientific Instruments, 2004, 75, 3417-3419. | 0.6 | 3 |
| 49 | Characterization of photo-multiplier tube as ex-vessel radiation detector in tokamak. Review of Scientific Instruments, 2017, 88, 093503. | 0.6 | 3 |
| 50 | Simple and accurate method of diamagnetic flux measurement in Versatile Experimental Spherical Torus (VEST). Review of Scientific Instruments, 2018, 89, 103508. | 0.6 | 3 |
| 51 | Electric potential in partially magnetized $E \times B$ discharges. AIP Advances, 2021, 11, . | 0.6 | 3 |
| 52 | Exploring the nonextensive thermodynamics of partially ionized gas in magnetic field. Physical Review E, 2021, 104, 045202. | 0.8 | 3 |
| 53 | High-current ion source development for the Korea Multipurpose Accelerator Complex. Review of Scientific Instruments, 2000, 71, 969-971. | 0.6 | 2 |
| 54 | 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, . | 0.7 | 2 |

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|----|--|-----|-----------|
| 55 | Time-Resolved Analysis of SF ₆ Arc Plasmas in a Laboratory Model Chamber for Circuit Breaker. IEEE Transactions on Plasma Science, 2020, 48, 3968-3974. | 0.6 | 2 |
| 56 | 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. | 0.6 | 2 |
| 57 | Efficiency improvement of an E- B Penning discharge source by enhanced cross-field transport of electrons. Plasma Sources Science and Technology, 2022, 31, 05LT02. | 1.3 | 2 |
| 58 | Development of a Cylindrical Neutron Generator using RF-driven Plasma. , 2006, , . | | 1 |
| 59 | Analysis of Repetitive Pulse Discharge System for Plasma Source Ion Implantation. International Power Modulator Symposium and High-Voltage Workshop, 2006, , . | 0.0 | 1 |
| 60 | Preface: Proceedings of the 12th International Conference on Ion Sources, Jeju, Korea, 2007. Review of Scientific Instruments, 2008, 79, 02A101. | 0.6 | 1 |
| 61 | Design of an imaging Fabry-Pérot interferometer for the VEST edge plasma temperature measurement. Review of Scientific Instruments, 2018, 89, 10D108. | 0.6 | 1 |
| 62 | Numerical simulation for wire X-pinch plasma on 2D/3D geometry. Physics of Plasmas, 2022, 29, . | 0.7 | 1 |
| 63 | Study on magnetized inductively coupled plasma with Nagoya III antenna. , 0, , . | | 0 |
| 64 | Spectroscopic Method for Determination of $N_{2^2}(A^{3\Sigma_u^-})$ Metastable Density in Atmospheric Pressure Non-Equilibrium N_2 Plasmas. , 2005, , . | | 0 |
| 65 | Surface Modification of Polyimide Films by DBD Atmospheric Pressure Plasma for Copper Metallization. IEEE International Conference on Plasma Science, 2005, , . | 0.0 | 0 |
| 66 | Investigation of Plasma Recovery during Fall Time in Plasma Source Ion Implantation. , 2006, , . | | 0 |
| 67 | Determination of Plasma Current on the Electrode Biased a High Negative Potential. , 2006, , . | | 0 |
| 68 | Effects of Initial Plasma Properties on Plasma Recovery in Plasma Source Ion Implantation. , 2007, , . | | 0 |
| 69 | Electric field effect on the optically-pumped far-infrared laser. Applied Physics B: Lasers and Optics, 2008, 93, 575-582. | 1.1 | 0 |
| 70 | 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. | 0.6 | 0 |
| 71 | Investigation of helium ion production in constricted direct current plasma ion source with layered-glow. Review of Scientific Instruments, 2014, 85, 02C105. | 0.6 | 0 |
| 72 | Spectroscopic study on the temperature evolution of exploding wires in underwater discharges. , 2015, , . | | 0 |

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|----|---|-----|-----------|
| 73 | Electron density profile measurements from hydrogen line intensity ratio method in Versatile Experiment Spherical Torus. Review of Scientific Instruments, 2016, 87, 11E540. | 0.6 | 0 |
| 74 | Transition Of Thermodynamic Property Of Electron In A Magnetically Expanding Plasma. , 2017, , . | | 0 |
| 75 | Improved gating device of time-of-flight ion mass analyzer for ion sources. Review of Scientific Instruments, 2019, 90, 033305. | 0.6 | 0 |
| 76 | 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. | 0.3 | 0 |
| 77 | Development of an ultrafast charge exchange spectroscopy system on the KSTAR tokamak. Review of Scientific Instruments, 2021, 92, 053525. | 0.6 | 0 |
| 78 | Identification of kink instability in 3D helical flux ropes at VEST. Physics of Plasmas, 2022, 29, 052112. | 0.7 | 0 |
| 79 | Investigation of the effect of pre-fill gas in VEST discharges by predictive transport simulations. Journal of the Korean Physical Society, 0, , . | 0.3 | 0 |