Trey Gebhart

List of Publications by Year
in descending order

31 papers	186 citations	1163117 8 h-index	1199594 12 g-index
31 all docs	31 docs citations	31 times ranked	215 citing authors

#	Article	IF	Citations
1	Shattered pellet injection experiments at JET in support of the ITER disruption mitigation system design. Nuclear Fusion, 2022, 62, 026012.	3.5	25
2	Characterization of an electrothermal plasma source for fusion transient simulations. Journal of Applied Physics, 2018, 123, .	2.5	19
3	Recent progress in shattered pellet injection technology in support of the ITER disruption mitigation system [*]. Nuclear Fusion, 2021, 61, 106007.	3.5	15
4	Optimization of Fusion Pellet Launch Velocity in an Electrothermal Mass Accelerator. Journal of Fusion Energy, 2014, 33, 32-39.	1.2	13
5	Experimental Pellet Shatter Thresholds and Analysis of Shatter Tube Ejecta for Disruption Mitigation Cryogenic Pellets. IEEE Transactions on Plasma Science, 2020, 48, 1598-1605.	1.3	13
6	Design and performance of shattered pellet injection systems for JET and KSTAR disruption mitigation research in support of ITER [*]. Nuclear Fusion, 2021, 61, 106001.	3.5	13
7	Material impacts and heat flux characterization of an electrothermal plasma source with an applied magnetic field. Journal of Applied Physics, 2017, 122, .	2.5	10
8	Shatter Thresholds and Fragment Size Distributions of Deuteriumâ€“Neon Mixture Cryogenic Pellets for Tokamak Thermal Mitigation. Fusion Science and Technology, 2020, 76, 831-835.	1.1	9
9	Solidification and Acceleration of Large Cryogenic Pellets Relevant for Plasma Disruption Mitigation. IEEE Transactions on Plasma Science, 2016, 44, 1506-1513.	1.3	8
10	Design of a Continuous Pellet Fueling System for Wendelstein 7-X. IEEE Transactions on Plasma Science, 2020, 48, 1585-1590.	1.3	7
11	Physics of runaway electrons with shattered pellet injection at JET. Plasma Physics and Controlled Fusion, 2022, 64, 034002.	2.1	7
12	Surface Erosion of Plasma-Facing Materials Using an Electrothermal Plasma Source and Ion Beam Micro-Trenches. Fusion Science and Technology, 2019, 75, 621-635.	1.1	5
13	Development of Solenoid-Driven and Pneumatic Punches for Launching High-Z Cryogenic Pellets for Tokamak Disruption Mitigation Experiments. Fusion Science and Technology, 2019, 75, 759-766.	1.1	5
14	Analysis of the Shattered Pellet Injection Fragment Plumes Generated by Machine Specific Shatter Tube Designs. Fusion Science and Technology, 2021, 77, 33-41.	1.1	5
15	Design and Modeling of Vacuum Pumping for Steady-State Pellet Fueling Systems. Fusion Science and Technology, 2019, 75, 89-97.	1.1	4
16	Issues in Formation of Cryogenic Pellets for Fusion Applications. Fusion Science and Technology, 2021, 77, 728-737.	1.1	4
17	Recent Developments in Dual-Laser Digital Holography for Plasma-Facing Surface Characterization. IEEE Transactions on Plasma Science, 2020, 48, 1655-1660.	1.3	3
18	Measurements of dynamic surface changes by digital holography for in situ plasma erosion applications. Review of Scientific Instruments, 2021, 92, 033504.	1.3	3

#	Article	IF	Citations
19	Design and implementation of a portable diagnostic system for Thomson scattering and optical emission spectroscopy measurements. Review of Scientific Instruments, 2021, 92, 063002.	1.3	3
20	Design and Testing of a Prototype Eddy Current Actuated Valve for the ITER Shattered Pellet Injection System. IEEE Transactions on Plasma Science, 2022, 50, 4177-4181.	1.3	3
21	Recent developments in support of the shattered pellet technique for disruption mitigation. , 2015, , .		2
22	Comparison of an Electrothermal Plasma Source to a Light Gas Gun for Launching Large Cryogenic Pellets for Tokamak Disruption Mitigation. Fusion Science and Technology, 2018, 73, 25-33.	1.1	2
23	A digital holography ex situ measurement characterization of plasma-exposed surface erosion from an electrothermal arc source. Review of Scientific Instruments, 2021, 92, 033517.	1.3	2
24	Shear Strength and Release of Large Cryogenic Pellets from the Barrel of a Shattered Pellet Injector for Disruption Mitigation. Fusion Science and Technology, 0, , 1-7.	1.1	2
25	Reconfiguration of an Electrothermal-Arc Plasma Source for In Situ PMI Studies. Fusion Science and Technology, 2021, 77, 921-927.	1.1	2
26	The effect of pellet volume and aspect ratio on fuel pellet exit velocities in a capillary discharge mass accelerator. , 2013, , .		1
27	Investigation of electrothermal plasma pellet launcher optimization for fusion fueling. , 2014, , .		1
28	A computational study of a segmented electrothermal plasma source. , 2013, , .		0
29	Breakdown voltage correlations in a large DC discharge tube for multiple gases. , 2014, , .		0
30	Optimization of capillary source geometry for maximum pellet exit velocity in electrothermal plasma launchers. , 2014, , .		0
31	Gas Gun Model and Comparison to Experimental Performance of Pipe Guns Operating with Light Propellant Gases and Large Cryogenic Pellets. Fusion Science and Technology, 2017, , 1-12.	1.1	0