M W Bongard

List of Publications by Year
in descending order

102	2,276	201674	243625
papers	citations	27 h-index	44 g-index

106	106	106	1100
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnetic Turbulence and Current Drive during Local Helicity Injection. Physical Review Letters, 2022, 128, 105001.	7.8	0
2	Digital Control and Power Systems for the Pegasus-III Experiment. IEEE Transactions on Plasma Science, 2022, 50, 4021-4026.	1.3	3
3	A Coaxial Helicity Injection System for Nonsolenoidal Startup Studies on the PEGASUS-III Experiment. IEEE Transactions on Plasma Science, 2022, 50, 4015-4020.	1.3	3
4	The New PEGASUS-III Experiment. IEEE Transactions on Plasma Science, 2022, 50, 4009-4014.	1.3	2
5	Ion temperature and rotation fluctuation measurements with ultra-fast charge exchange recombination spectroscopy (UF-CHERS) in the DIII-D tokamak. Review of Scientific Instruments, 2021, 92, 053513.	1.3	1
6	Initial characterization of electron temperature and density profiles in PEGASUS spherical tokamak discharges driven solely by local helicity injection. Physics of Plasmas, 2021, 28, 102504.	1.9	1
7	Effect of magnetic perturbations on turbulence-flow dynamics at the L-H transition on DIII-D. Physics of Plasmas, 2020, 27, 062507.	1.9	18
8	Advancing local helicity injection for non-solenoidal tokamak startup. Nuclear Fusion, 2019, 59, 076003.	3.5	14
9	Non-inductively driven tokamak plasmas at near-unity $\hat{I}^2t$ in the Pegasus toroidal experiment. Physics of Plasmas, 2018, 25, 056101.	1.9	9
10	Extracting the turbulent flow-field from beam emission spectroscopy images using velocimetry. Review of Scientific Instruments, 2018, 89, 10E107.	1.3	8
11	Spatial heterodyne spectroscopy for high speed measurements of Stark split neutral beam emission in a high temperature plasma. Review of Scientific Instruments, 2018, 89, 10D114.	1.3	4
12	A power-balance model for local helicity injection startup in a spherical tokamak. Nuclear Fusion, 2018, 58, 076011.	3.5	2
13	Radially scanning magnetic probes to study local helicity injection dynamics. Review of Scientific Instruments, 2018, 89, 10J103.	1.3	2
14	Initiation and sustainment of tokamak plasmas with local helicity injection as the majority current drive. Nuclear Fusion, 2018, 58, 096002.	3.5	3
15	Noninductively Driven Tokamak Plasmas at Near-Unity Toroidal Beta. Physical Review Letters, 2017, 119, 035001.	7.8	6
16	Continuous, edge localized ion heating during non-solenoidal plasma startup and sustainment in a low aspect ratio tokamak. Nuclear Fusion, 2017, 57, 076010.	3.5	6
17	H-mode plasmas at very low aspect ratio on the Pegasus Toroidal Experiment. Nuclear Fusion, 2017, 57, 022018.	3.5	14
18	Control and automation of the Pegasus multi-point Thomson scattering system. Review of Scientific Instruments, 2016, 87, 11E523.	1.3	2

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19	Optimization and application of cooled avalanche photodiodes for spectroscopic fluctuation measurements with ultra-fast charge exchange recombination spectroscopy. Review of Scientific Instruments, 2016, 87, 11E551.	1.3	4
20	Impedance of an intense plasma-cathode electron source for tokamak startup. Physics of Plasmas, 2016, 23, 052515.	1.9	8
21	A novel, cost-effective, multi-point Thomson scattering system on the Pegasus Toroidal Experiment (invited). Review of Scientific Instruments, 2016, 87, 11E403.	1.3	10
22	High Confinement Mode and Edge Localized Mode Characteristics in a Near-Unity Aspect Ratio Tokamak. Physical Review Letters, 2016, 116, 175001.	7.8	10
23	On virial analysis at low aspect ratio. Physics of Plasmas, 2016, 23, .	1.9	10
24	Characterization of peeling modes in a low aspect ratio tokamak. Nuclear Fusion, 2014, 54, 114008.	3.5	10
25	Characterization and parametric dependencies of low wavenumber pedestal turbulence in the National Spherical Torus Experiment. Physics of Plasmas, 2013, 20, .	1.9	17
26	Progress on Thomson scattering in the Pegasus Toroidal Experiment. Journal of Instrumentation, 2013, 8, C11019-C11019.	1.2	8
27	A compact multichannel spectrometer for Thomson scattering. Review of Scientific Instruments, 2012, 83, 10E330.	1.3	8
28	A Thomson scattering diagnostic on the Pegasus Toroidal experiment. Review of Scientific Instruments, 2012, 83, 10E335.	1.3	11
29	Multi-point, high-speed passive ion velocity distribution diagnostic on the Pegasus Toroidal Experiment. Review of Scientific Instruments, 2012, 83, 10D516.	1.3	7
30	Full-wave modeling of the Oâ€“X mode conversion in the Pegasustoroidal experiment. Physics of Plasmas, 2011, 18, 082501.	1.9	7
31	Full-wave modeling of the O-X mode conversion in the Pegasus Toroidal Experiment. , 2011, , .		1
32	Measurement of Peeling Mode Edge Current Profile Dynamics. Physical Review Letters, 2011, 107, 035003.	7.8	12
33	Tokamak startup using outboard current injection on the Pegasus Toroidal Experiment. Nuclear Fusion, 2011, 51, 073029.	3.5	27
34	Implications for ITER CODAC from DIII-D experience. Fusion Engineering and Design, 2010, 85, 433-437.	1.9	0
35	A Hall sensor array for internal current profile constraint. Review of Scientific Instruments, 2010, 81, 10E105.	1.3	14
36	Tokamak Startup Using Point-Source dc Helicity Injection. Physical Review Letters, 2009, 102, 225003.	7.8	34

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37	The Formation of a Tokamak-like Plasma in Initial Experiments Using an Outboard Plasma Gun Current Source. Journal of Fusion Energy, 2009, 28, 140-143.	1.2	11
38	Point-Source Helicity Injection Current Drive System for the Pegasus Toroidal Experiment. Journal of Fusion Energy, 2009, 28, 203-207.	1.2	11
39	Dependence of the low to high confinement mode transition power threshold and turbulence flow shear on injected torque. Physics of Plasmas, 2009, 16, .	1.9	3
40	Attainment of High Normalized Current by Current Profile Manipulation in the Pegasus Toroidal Experiment. Journal of Fusion Energy, 2008, 27, 20-24.	1.2	3
41	Initial Experiments at High Normalized Current in the Pegasus Toroidal Experiment. Journal of Fusion Energy, 2007, 26, 221-225.	1.2	4
42	Non-inductive Production of ST Plasmas with Washer Gun Sources on the Pegasus Toroidal Experiment. Journal of Fusion Energy, 2007, 26, 43-46.	1.2	19
43	Nuclear electric quadrupole moments of Rb from the hyperfine spectrum of RbF. Journal of Chemical Physics, 2006, 124, 244304.	3.0	13
44	Hyperfine spectrum of RbCl. Journal of Chemical Physics, 2006, 124, 244305.	3.0	15
45	The upgraded Pegasus Toroidal Experiment. Nuclear Fusion, 2006, 46, S603-S612.	3.5	34
46	An anomaly in the isotopomer shift of the hyperfine spectrum of LiI. Journal of Chemical Physics, 2005, 123, 134321.	3.0	12
47	Investigation of the time-delay estimation method for turbulent velocity inference. Review of Scientific Instruments, 2004, 75, 4278-4280.	1.3	33
48	Performance and stability of near-unity aspect ratio plasmas in the Pegasus Toroidal Experiment. Physics of Plasmas, 2003, 10, 1705-1711.	1.9	18
49	Turbulence imaging and applications using beam emission spectroscopy on DIII-D (invited). Review of Scientific Instruments, 2003, 74, 2014-2019.	1.3	76
50	Wavelet-based time-delay estimation for time-resolved turbulent flow analysis. Review of Scientific Instruments, 2001, 72, 996-999.	1.3	43
51	A Lyman-alpha-based (VUV) plasma density fluctuation diagnostic design. Review of Scientific Instruments, 2001, 72, 992-995.	1.3	7
52	Linewidth-modulated motional Stark effect measurements of internal field structure in low-field configurations. Review of Scientific Instruments, 2001, 72, 1000-1003.	1.3	1
53	Fusion plasma experiments on TFTR: A 20 year retrospective. Physics of Plasmas, 1998, 5, 1577-1589.	1.9	91
54	Deuteriumâ€“tritium plasmas in novel regimes in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1997, 4, 1714-1724.	1.9	27

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55	Measurements of Nonlinear Energy Transfer in Turbulence in the Tokamak Fusion Test Reactor. Physical Review Letters, 1997, 79, 841-844.	7.8	48
56	Convergence, electrostatic potential, and density measurements in a spherically convergent ion focus. Physics of Plasmas, 1997, 4, 4-15.	1.9	78
57	Technique for the experimental estimation of nonlinear energy transfer in fully developed turbulence. Physics of Plasmas, 1996, 3, 3998-4009.	1.9	57
58	Deuterium-tritium experiments on TFTR. AIP Conference Proceedings, 1995, , .	0.4	0
59	Implementation of the Î±â€CHERS diagnostic for Dâ€“T operation of TFTR. Review of Scientific Instruments, 1995, 66, 643-645.	1.3	9
60	Beam emission imaging system for 2D plasma turbulence measurements. Review of Scientific Instruments, 1995, 66, 639-641.	1.3	6
61	of Scientific Instruments, 1995, 66, 919-919.	1.3	1
62	Scientific Instruments, 1995, 66, 1252-1255.	1.3	18
63	Analysis methods for fast impurity ion dynamics data. Review of Scientific Instruments, 1995, 66, 444-446.	1.3	9
64	Isotopic scaling of confinement in deuteriumâ€“tritium plasmas. Physics of Plasmas, 1995, 2, 2299-2307.	1.9	57
65	Fast flow phenomena in a toroidal plasma. Physics of Plasmas, 1995, 2, 2281-2285.	1.9	44
66	Review of deuteriumâ€“tritium results from the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 2176-2188.	1.9	89
67	Optical diagnostic to measure ion temperature and parallel velocity fluctuations on the Tokamak Fusion Test Reactor. Review of Scientific Instruments, 1995, 66, 845-847.	1.3	16
68	A fast spectroscopic diagnostic for the measurement of plasma impurity ion dynamics. Review of Scientific Instruments, 1994, 65, 3238-3242.	1.3	42
69	Preparations for deuteriumâ€“tritium experiments on the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1560-1567.	1.9	7
70	Using a freeâ€standing thermistor array to measure VUV emission from a tokamak plasma. Review of Scientific Instruments, 1993, 64, 2423-2427.	1.3	8
71	Lowâ€noise photodiode detector for optical fluctuation diagnostics. Review of Scientific Instruments, 1992, 63, 4924-4926.	1.3	32
72	Optical fluctuation measurements of turbulence using a diagnostic beam on Phaedrusâ€T. Review of Scientific Instruments, 1992, 63, 4928-4930.	1.3	15

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73	Remote operation of the TFTR BES experiment from an offâ€site location. Review of Scientific Instruments, 1992, 63, 4803-4805.	1.3	7
74	Effects of edge plasma turbulence on radial correlation length measurements with BES. Review of Scientific Instruments, 1992, 63, 4931-4933.	1.3	27
75	Measurements of the radial structure and poloidal spectra of toroidal AlfvÃ©n eigenmodes in the Tokamak Fusion Test Reactor. Physics of Fluids B, 1992, 4, 3707-3712.	1.7	32
76	Density fluctuation measurements via beam emission spectroscopy (invited). Review of Scientific Instruments, 1992, 63, 4907-4912.	1.3	80
77	Alphaâ€CHERS: A spectroscopic experiment to detect nonthermal alpha particles on TFTR. Review of Scientific Instruments, 1992, 63, 5179-5181.	1.3	7
78	Investigation of global AlfvÃ©n instabilities in the Tokamak Fusion Test Reactor. Physics of Fluids B, 1992, 4, 2122-2126.	1.7	37
79	Intense diagnostic neutral beam development for ITER. Review of Scientific Instruments, 1992, 63, 4934-4936.	1.3	22
80	Spectrometer system and detector tests for the TFTR alphaâ€CHERS experiment. Review of Scientific Instruments, 1992, 63, 5182-5184.	1.3	7
81	Mechanized selection of fiber optic arrays for spectroscopy measurements. Review of Scientific Instruments, 1992, 63, 4921-4923.	1.3	1
82	Measurements of longâ€wavelength density fluctuations in TFTR. Physics of Fluids B, 1992, 4, 2922-2928.	1.7	31
83	Control of plasma shape and performance of the PBXâ€M tokamak experiment in highâ€Î²t /highâ€Î²p regimes. Physics of Fluids B, 1990, 2, 1271-1279.	1.7	65
84	Highâ€beta operation and magnetohydrodynamic activity on the TFTR tokamak. Physics of Fluids B, 1990, 2, 1287-1290.	1.7	35
85	Correlations of heat and momentum transport in the TFTR tokamak. Physics of Fluids B, 1990, 2, 1300-1305.	1.7	47
86	Line shapes in charge exchange recombination spectroscopy. AIP Conference Proceedings, 1990, , .	0.4	0
87	Atomic processes and spectroscopic techniques applied to fusion plasma diagnostics. AIP Conference Proceedings, 1990, , .	0.4	0
88	Neutral beam emission spectroscopy diagnostic for measurement of density fluctuations on the TFTR tokamak (abstract). Review of Scientific Instruments, 1990, 61, 3073-3073.	1.3	3
89	Iron concentration measurements on TFTR using charge exchange excited lines of heliumâ€like iron in the 200â€“700 Ã… region. Review of Scientific Instruments, 1990, 61, 3113-3115.	1.3	1
90	Beam emission spectroscopy diagnostic for the study of turbulence in Phaedrusâ€T tokamak plasmas. Review of Scientific Instruments, 1990, 61, 3046-3048.	1.3	11

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91	Plasma fluctuation measurements in tokamaks using beamâ€plasma interactions. Review of Scientific Instruments, 1990, 61, 3487-3495.	1.3	157
92	Plasma fluctuation measurements in tokamaks using beamâ€plasma interactions (abstract). Review of Scientific Instruments, 1990, 61, 3070-3070.	1.3	8
93	Neutral beam emission spectroscopy diagnostic for measurement of density fluctuations on the TFTR tokamak. Review of Scientific Instruments, 1990, 61, 3496-3500.	1.3	30
94	Corrections to charge exchange spectroscopic measurements in TFTR due to energyâ€dependent excitation rates. Review of Scientific Instruments, 1988, 59, 1521-1523.	1.3	44
95	Utilization of charge exchange recombination spectroscopy for the study of metallic ion transport in TFTR. Review of Scientific Instruments, 1988, 59, 1518-1520.	1.3	12
96	Tomographic imaging of MHD activity in tokamaks by combining diode arrays and a tangentially viewing pinhole camera. Review of Scientific Instruments, 1988, 59, 1819-1821.	1.3	12
97	Softâ€xâ€ray camera for internal shape and currentâ€density measurements on a noncircular tokamak. Review of Scientific Instruments, 1988, 59, 1831-1833.	1.3	22
98	Operation of a multichannel tangential bolometer on PBX. Review of Scientific Instruments, 1986, 57, 2099-2099.	1.3	0
99	SPRED spectrograph upgrade: Highâ€resolution grating and improved absolute calibrations. Review of Scientific Instruments, 1986, 57, 2043-2045.	1.3	31
100	Charge exchange recombination spectroscopy measurements of ion temperature and plasma rotation in PBX. Review of Scientific Instruments, 1985, 56, 865-867.	1.3	19
101	Plasma ion temperature measurements via charge exchange recombination radiation. Applied Physics Letters, 1983, 42, 239-241.	3.3	87
102	Multichannel grazing-incidence spectrometer for plasma impurity diagnosis: SPRED. Applied Optics, 1982, 21, 2115.	2.1	187