Jan Mlynar

List of Publications by Year
in descending order

102	2,270	218677	243625
papers	citations	26 h-index	44 g-index

104	104	104	1791
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Overview of the JET results in support to ITER. Nuclear Fusion, 2017, 57, 102001.	3.5	150
2	Tungsten transport in JET H-mode plasmas in hybrid scenario, experimental observations and modelling. Nuclear Fusion, 2014, 54, 083028.	3.5	139
3	Theoretical description of heavy impurity transport and its application to the modelling of tungsten in JET and ASDEX upgrade. Plasma Physics and Controlled Fusion, 2015, 57, 014031.	2.1	107
4	Steady-State Fully Noninductive Current Driven by Electron Cyclotron Waves in a Magnetically Confined Plasma. Physical Review Letters, 2000, 84, 3322-3325.	7.8	102
5	Study of runaway electron generation during major disruptions in JET. Nuclear Fusion, 2006, 46, 277-284.	3.5	98
6	Observations on the W-transport in the core plasma of JET and ASDEX Upgrade. Plasma Physics and Controlled Fusion, 2013, 55, 124036.	2.1	81
7	Efficient generation of energetic ions in multi-ion plasmas by radio-frequency heating. Nature Physics, 2017, 13, 973-978.	16.7	73
8	Overview of the JET results with the ITER-like wall. Nuclear Fusion, 2013, 53, 104002.	3.5	70
9	Status of the COMPASS tokamak and characterization of the first H-mode. Plasma Physics and Controlled Fusion, 2016, 58, 014015.	2.1	70
10	Energy confinement and MHD activity in shaped TCV plasmas with localized electron cyclotron heating. Nuclear Fusion, 1999, 39, 1807-1818.	3.5	60
11	Optimization of ICRH for core impurity control in JET-ILW. Nuclear Fusion, 2016, 56, 036022.	3.5	59
12	Runaway electron beam generation and mitigation during disruptions at JET-ILW. Nuclear Fusion, 2015, 55, 093013.	3.5	58
13	Conceptual design of the COMPASS upgrade tokamak. Fusion Engineering and Design, 2017, 123, 11-16.	1.9	49
14	High-power ECH and fully non-inductive operation with ECCD in the TCV tokamak. Plasma Physics and Controlled Fusion, 2000, 42, B311-B321.	2.1	43
15	Physics research on the TCV tokamak facility: from conventional to alternative scenarios and beyond. Nuclear Fusion, 2019, 59, 112023.	3.5	43
16	Modern numerical methods for plasma tomography optimisation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 686, 156-161.	1.6	42
17	Overview of the COMPASS diagnostics. Fusion Engineering and Design, 2011, 86, 1227-1231.	1.9	41
18	Steady-state fully noninductive operation with electron cyclotron current drive and current profile control in the tokamak Ã configuration variable (TCV). Physics of Plasmas, 2001, 8, 2199-2207.	1.9	40

#	Article	IF	Citations
19	Overview of JET results. Nuclear Fusion, 2003, 43, 1540-1554.	3.5	38
20	Design of soft-X-ray tomographic system in WEST using GEM detectors. Fusion Engineering and Design, 2015, 96-97, 856-860.	1.9	37
21	Runaway electron experiments at COMPASS in support of the EUROfusion ITER physics research. Plasma Physics and Controlled Fusion, 2019, 61, 014010.	2.1	36
22	Soft x-ray tomography for real-time applications: present status at Tore Supra and possible future developments. Review of Scientific Instruments, 2012, 83, 063505.	1.3	35
23	Current Research into Applications of Tomography for Fusion Diagnostics. Journal of Fusion Energy, 2019, 38, 458-466.	1.2	33
24	Shape dependence of sawtooth inversion radii and profile peaking factors in TCV L mode plasmas. Nuclear Fusion, 2002, 42, 136-142.	3.5	29
25	Multi-mode remote participation on the GOLEM tokamak. Fusion Engineering and Design, 2011, 86, 1310-1314.	1.9	28
26	Investigation of the consistency of magnetic and soft x-ray plasma position measurements on TCV by means of a rapid tomographic inversion algorithm. Plasma Physics and Controlled Fusion, 2003, 45, 169-180.	2.1	27
27	Fast bolometric measurements on the TCV tokamak. Review of Scientific Instruments, 1999, 70, 4552-4556.	1.3	26
28	Runaway electron beam control. Plasma Physics and Controlled Fusion, 2019, 61, 014036.	2.1	26
29	An overview of results from the TCV tokamak. Nuclear Fusion, 2003, 43, 1619-1631.	3.5	25
30	Shattered pellet injection experiments at JET in support of the ITER disruption mitigation system design. Nuclear Fusion, 2022, 62, 026012.	3.5	25
31	Overview of progress in European medium sized tokamaks towards an integrated plasma-edge/wall solution ^a. Nuclear Fusion, 2017, 57, 102014.	3.5	23
32	Plasma tomographic reconstruction from tangentially viewing camera with background subtraction. Review of Scientific Instruments, 2014, 85, 013509.	1.3	21
33	Radiation asymmetries during the thermal quench of massive gas injection disruptions in JET. Nuclear Fusion, 2015, 55, 123027.	3.5	21
34	Stability and energy confinement of highly elongated plasmas in TCV. Plasma Physics and Controlled Fusion, 2001, 43, A161-A173.	2.1	18
35	â€˜Burning plasmaâ€™ diagnostics for the physics of JET and ITER. Plasma Physics and Controlled Fusion, 2005, 47, B249-B262.	2.1	18
36	Introducing minimum Fisher regularisation tomography to AXUV and soft x-ray diagnostic systems of the COMPASS tokamak. Review of Scientific Instruments, 2012, 83, 10E531.	1.3	18

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37	Losses of runaway electrons in MHD-active plasmas of the COMPASS tokamak. Nuclear Fusion, 2017, 57, 076002.	3.5	18
38	Analysis of deposited layers with deuterium and impurity elements on samples from the divertor of JET with ITER-like wall. Journal of Nuclear Materials, 2019, 516, 202-213.	2.7	18
39	Upgrade of the diagnostic neutral beam injector for the TCV tokamak. Fusion Engineering and Design, 2003, 66-68, 899-904.	1.9	17
40	Neutron profiles and fuel rationT/nDmeasurements in JET ELMy H-mode plasmas with tritium puff. Nuclear Fusion, 2006, 46, 725-740.	3.5	16
41	Detecting non-Maxwellian electron velocity distributions at JET by high resolution Thomson scattering. Review of Scientific Instruments, 2011, 82, 033514.	1.3	16
42	Ion cyclotron resonance frequency heating in JET during initial operations with the ITER-like wall. Physics of Plasmas, 2014, 21, 061510.	1.9	16
43	Post-disruptive runaway electron beams in the COMPASS tokamak. Journal of Plasma Physics, 2015, 81, .	2.1	16
44	Runaway electron beam stability and decay in COMPASS. Nuclear Fusion, 2019, 59, 096036.	3.5	16
45	Inversion Techniques in the Soft-X-Ray Tomography of Fusion Plasmas: Toward Real-Time Applications. Fusion Science and Technology, 2010, 58, 733-741.	1.1	15
46	Studies of runaway electrons via Cherenkov effect in tokamaks. Journal of Physics: Conference Series, 2018, 959, 012002.	0.4	14
47	First results of Minimum Fisher Regularisation as unfolding method for JET NE213 liquid scintillator neutron spectrometry. Fusion Engineering and Design, 2005, 74, 781-786.	1.9	12
48	New developments in the diagnostics for the fusion products on JET in preparation for ITER (invited). Review of Scientific Instruments, 2010, 81, 10E136.	1.3	12
49	Runaway beam studies during disruptions at JET-ILW. Journal of Nuclear Materials, 2015, 463, 143-149.	2.7	12
50	Tomographic capabilities of the new GEM based SXR diagnostic of WEST. Journal of Instrumentation, 2016, 11, C07006-C07006.	1.2	12
51	Comparison of runaway electron generation parameters in small, medium-sized and large tokamaksâ€”A survey of experiments in COMPASS, TCV, ASDEX-Upgrade and JET. Nuclear Fusion, 2018, 58, 016014.	3.5	12
52	Extension of the TCV operating space towards higher elongation and higher normalized current. Nuclear Fusion, 2002, 42, 743-749.	3.5	11
53	Design of multi-range tomographic system for transport studies in tokamak plasmas. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 623, 806-808.	1.6	11
54	Minimum Fisher Tikhonov Regularization Adapted to Real-Time Tomography. Fusion Science and Technology, 2016, 69, 505-513.	1.1	11

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55	Progress in diagnostics of the COMPASS tokamak. Journal of Instrumentation, 2017, 12, C12015-C12015.	1.2	10
56	Experimental Runaway Electron Current Estimation in COMPASS Tokamak. Atoms, 2019, 7, 12.	1.6	10
57	Present and perspective roles of soft X-ray tomography in tokamak plasma position measurements. Fusion Engineering and Design, 2003, 66-68, 905-909.	1.9	9
58	Comparison of Advanced Machine Learning Tools for Disruption Prediction and Disruption Studies. IEEE Transactions on Plasma Science, 2013, 41, 1751-1759.	1.3	8
59	Remote operation of the GOLEM tokamak with hydrogen and helium plasmas. Journal of Physics: Conference Series, 2016, 768, 012002.	0.4	8
60	Development of a Cherenkov-type diagnostic system to study runaway electrons within the COMPASS tokamak. Journal of Instrumentation, 2017, 12, C10014-C10014.	1.2	8
61	First dedicated observations of runaway electrons in the COMPASS tokamak. Nukleonika, 2015, 60, 249-255.	0.8	8
62	Pixels method computer tomography in polar coordinates. European Physical Journal D, 1995, 45, 799-816.	0.4	7
63	Optimization of soft X-ray tomography on the COMPASS tokamak. Nukleonika, 2016, 61, 403-408.	0.8	7
64	Overview of the COMPASS results [*]. Nuclear Fusion, 2022, 62, 042021.	3.5	7
65	Low cost alternative of high speed visible light camera for tokamak experiments. Review of Scientific Instruments, 2012, 83, 10E505.	1.3	6
66	Deep neural networks for plasma tomography with applications to JET and COMPASS. Journal of Instrumentation, 2019, 14, C09011-C09011.	1.2	6
67	ECH physics and new operational regimes on TCV. Plasma Physics and Controlled Fusion, 2002, 44, B85-B97.	2.1	5
68	A novel method for trace tritium transport studies. Nuclear Fusion, 2009, 49, 085025.	3.5	5
69	Use of soft x-ray diagnostic on the COMPASS tokamak for investigations of sawteeth crash neighborhood and of plasma position using fast inversion methods. Review of Scientific Instruments, 2014, 85, 11E433.	1.3	5
70	Soft X-ray tomographic reconstruction of JET ILW plasmas with tungsten impurity and different spectral response of detectors. Fusion Engineering and Design, 2015, 96-97, 869-872.	1.9	5
71	ITER-like current ramps in JET with ILW: experiments, modelling and consequences for ITER. Nuclear Fusion, 2015, 55, 013009.	3.5	5
72	Hard X-ray Bremsstrahlung of relativistic Runaway Electrons in JET. Journal of Instrumentation, 2019, 14, C09042-C09042.	1.2	5

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73	Conceptual design of tomographic soft X-ray detectors for COMPASS-U tokamak. Fusion Engineering and Design, 2021, 168, 112656.	1.9	5
74	Full conversion from ohmic to runaway electron driven current via massive gas injection in the TCV tokamak. Nuclear Fusion, 2022, 62, 076038.	3.5	5
75	Interlock system for the COMPASS tokamak. Fusion Engineering and Design, 2010, 85, 505-508.	1.9	4
76	Experimental investigation of the confinement of d(³He,p)Î±and d(d,p)t fusion reaction products in JET. Nuclear Fusion, 2012, 52, 083004.	3.5	4
77	Runaway electrons diagnostics using segmented semiconductor detectors. Fusion Engineering and Design, 2019, 146, 316-319.	1.9	4
78	More than 30 years of experience in fusion education at the Institute of Plasma Physics of the Czech Academy of Sciences. European Journal of Physics, 2021, 42, 045703.	0.6	4
79	Progress in HXR diagnostics at GOLEM and COMPASS tokamaks. Journal of Instrumentation, 2022, 17, C01033.	1.2	4
80	Overview of TCV results. Nuclear Fusion, 2001, 41, 1459-1472.	3.5	3
81	Fusion alpha loss diagnostic for ITER using activation technique. Fusion Engineering and Design, 2011, 86, 1298-1301.	1.9	3
82	ICRF heating in JET during initial operations with the ITER-like wall. , 2014, , .		3
83	Soft X-ray tomography in support of impurity control in tokamaks. Journal of Physics: Conference Series, 2016, 768, 012001.	0.4	3
84	Comparative analysis and new post-processing methods for plasma tomography at tokamaks. Journal of Instrumentation, 2019, 14, C11001-C11001.	1.2	3
85	Radiometry for the vertical electron cyclotron emission from the runaway electrons at the COMPASS tokamak. Review of Scientific Instruments, 2019, 90, 113501.	1.3	3
86	NEUTRON SPECTRA UNFOLDING WITH MINIMUM FISHER REGULARISATION. , 2007, , .		3
87	Tomotok: python package for tomography of tokamak plasma radiation. Journal of Instrumentation, 2021, 16, C12015.	1.2	3
88	Charged fusion product loss measurements using nuclear activation. Review of Scientific Instruments, 2010, 81, 10D331.	1.3	2
89	Evaluation of the Faraday angle by numerical methods and comparison with the Tore Supra and JET polarimeter electronics. Review of Scientific Instruments, 2011, 82, 043502.	1.3	2
90	Comparison of ICRF and NBI heated plasmas performances in the JET ITER-like wall. , 2014, , .		2

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91	ICRH for core impurity mitigation in JET-ILW. AIP Conference Proceedings, 2015, , .	0.4	2
92	A total neutron yield constraint implemented to the RNC emissivity reconstruction on ITER tokamak. Fusion Engineering and Design, 2020, 160, 111840.	1.9	2
93	NEUTRON DIAGNOSTICS FOR REACTOR SCALE FUSION EXPERIMENTS. , 2007, , .		2
94	Cherenkov probes and runaway electrons diagnostics. European Physical Journal Plus, 2021, 136, 1.	2.6	2
95	JET: Preparing the future in fusion. European Physical Journal D, 2004, 54, C28-C38.	0.4	1
96	First Measurement of X-rays Generated by Runaway Electrons in Tokamaks Using a TimePix3 Device with 1 mm thick Silicon Sensor. , 2018, , .		1
97	Runaway electron diagnostics for the COMPASS tokamak using EC emission. EPJ Web of Conferences, 2019, 203, 03006.	0.3	1
98	Full conversion from Ohmic to runaway electron driven current via massive gas injection in the TCV tokamak. Nuclear Fusion, 0, , .	3.5	1
99	Progress in neutron diagnostics at JET. European Physical Journal D, 2006, 56, B118-B124.	0.4	0
100	First fusion proton measurements in TEXTOR plasmas using activation technique. Review of Scientific Instruments, 2012, 83, 10D318.	1.3	0
101	Study of Runaway Electrons in GOLEM Tokamak. Journal of Instrumentation, 2019, 14, C09029-C09029.	1.2	0
102	Detection of runaway electrons at the COMPASS tokamak using a Timepix3-based semiconductor detector. Journal of Instrumentation, 2022, 17, P02030.	1.2	0