Ezekial A Unterberg

List of Publications by Year
in descending order

116	2,129	279798	302126
papers	citations	23 h-index	39 g-index

116	116	116	1442
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Software Package for Plasma-Facing Component Analysis and Design: The Heat Flux Engineering Analysis Toolkit (HEAT). Fusion Science and Technology, 2022, 78, 10-27.	1.1	10
2	The role of B _T-dependent flows on W accumulation at the edge of the confined plasma. Nuclear Fusion, 2022, 62, 026037.	3.5	6
3	Developing solid-surface plasma facing components for pilot plants and reactors with replenishable wall claddings and continuous surface conditioning. Part A: concepts and questions. Plasma Physics and Controlled Fusion, 2022, 64, 055018.	2.1	6
4	Developing solid-surface plasma facing components for pilot plants and reactors with replenishable wall claddings and continuous surface conditioning. Part B: required research in present tokamaks. Plasma Physics and Controlled Fusion, 2022, 64, 055003.	2.1	0
5	Initial results from boron powder injection experiments in WEST lower single null L-mode plasmas. Nuclear Fusion, 2022, 62, 086020.	3.5	8
6	Evaluation of silicon carbide as a divertor armor material in DIII-D H-mode discharges. Nuclear Fusion, 2021, 61, 066005.	3.5	16
7	RF wave coupling, plasma heating and characterization of induced plasma-material interactions in WEST L-mode discharges. Nuclear Fusion, 2021, 61, 086027.	3.5	8
8	Modeling of ExB effects on tungsten re-deposition and transport in the DIII-D divertor. Nuclear Fusion, 2021, 61, 096018.	3.5	13
9	Design and physics basis for the upcoming DIII-D SAS-VW campaign to quantify tungsten leakage and transport in a new slot divertor geometry. Physica Scripta, 2021, 96, 124073.	2.5	16
10	Development of Surface Eroding Thermocouples in Small Angle Slot Divertor in DIII-D. IEEE Transactions on Plasma Science, 2020, 48, 1804-1809.	1.3	5
11	Reproduction of collector probe deposition profiles using the far-SOL impurity transport code 3DLIM. Nuclear Materials and Energy, 2020, 25, 100811.	1.3	6
12	Fast response, optical radiance measurements of low intensity impurity emission in WEST plasmas with staggered wavelength filters. Journal of Instrumentation, 2020, 15, C02045-C02045.	1.2	0
13	Localized divertor leakage measurements using isotopic tungsten sources during edge-localized mode-y H-mode discharges on DIII-D. Nuclear Fusion, 2020, 60, 016028.	3.5	13
14	Enhanced helium exhaust during edge-localized mode suppression by resonant magnetic perturbations at DIII-D. Nuclear Fusion, 2020, 60, 054004.	3.5	5
15	Real-time pedestal optimization and ELM control with 3D fields and gas flows on DIII-D. Nuclear Fusion, 2020, 60, 076004.	3.5	12
16	Net versus gross erosion of silicon carbide in DIII-D divertor. Physica Scripta, 2020, T171, 014064.	2.5	5
17	Interpretative transport modeling of the WEST boundary plasma: main plasma and light impurities. Nuclear Fusion, 2020, 60, 126048.	3.5	18
18	Impact of ELM control techniques on tungsten sputtering in the DIII-D divertor and extrapolations to ITER. Physics of Plasmas, 2019, 26, .	1.9	19

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19	Advances in neutral tungsten ultraviolet spectroscopy for the potential benefit to gross erosion diagnosis. Plasma Physics and Controlled Fusion, 2019, 61, 095006.	2.1	9
20	Multiple Analytical Approach to Isotopic Transport Analysis in Magnetic Fusion Devices. Fusion Science and Technology, 2019, 75, 493-498.	1.1	8
21	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
22	Retention properties in displacement damaged ultra-fine grain tungsten exposed to divertor plasma. Nuclear Materials and Energy, 2019, 20, 100689.	1.3	0
23	Modeling of inter- and intra-edge-localized mode tungsten erosion during DIII-D H-mode discharges. Nuclear Fusion, 2019, 59, 126018.	3.5	10
24	Study of DIII-D tungsten erosion processes by using a carbonâ€“tungsten mixed material model. Nuclear Materials and Energy, 2019, 18, 141-146.	1.3	8
25	Use of isotopic tungsten tracers and a stable-isotope-mixing model to characterize divertor source location in the DIII-D metal rings campaign. Nuclear Materials and Energy, 2019, 19, 358-363.	1.3	13
26	Atomic insight into concurrent He, D, and T sputtering and near-surface implantation of 3C-SiC crystallographic surfaces. Nuclear Materials and Energy, 2019, 19, 1-6.	1.3	12
27	Erosion characterization of SiC and Ti3SiC2 on DIII-D using focused ion beam micro-trenches. Nuclear Materials and Energy, 2019, 19, 316-323.	1.3	7
28	Transport of tungsten to collector probes in DIII-D. Nuclear Materials and Energy, 2019, 18, 87-92.	1.3	12
29	Evidence of near-SOL tungsten accumulation using a far-SOL collector probe array and OEDGE modelling in the DIII-D metal rings L-mode discharges. Nuclear Materials and Energy, 2019, 19, 287-294.	1.3	19
30	Experimental validation of a model for particle recycling and tungsten erosion during ELMs in the DIII-D divertor. Nuclear Materials and Energy, 2018, 17, 164-173.	1.3	22
31	Use of reconstructed 3D equilibria to determine onset conditions of helical cores in tokamaks for extrapolation to ITER. Nuclear Fusion, 2018, 58, 036004.	3.5	9
32	The surface eroding thermocouple for fast heat flux measurement in DIII-D. Review of Scientific Instruments, 2018, 89, 10J122.	1.3	15
33	Utilization of outer-midplane collector probes with isotopically enriched tungsten tracer particles for impurity transport studies in the scrape-off layer of DIII-D (invited). Review of Scientific Instruments, 2018, 89, 10I115.	1.3	18
34	Visible spectroscopy diagnostics for tungsten source assessment in the WEST tokamak: First measurements. Review of Scientific Instruments, 2018, 89, 10D105.	1.3	15
35	Initial development of the DIIIâ€“D snowflake divertor control. Nuclear Fusion, 2018, 58, 066007.	3.5	10
36	Advances in Low-Temperature Tungsten Spectroscopy Capability to Quantify DIII-D Divertor Erosion. IEEE Transactions on Plasma Science, 2018, 46, 1298-1305.	1.3	21

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37	Impact of magnetic islands in the plasma edge on particle fueling and exhaust in the HSX and W7-X stellarators. Physics of Plasmas, 2018, 25, 062501.	1.9	5
38	Advances in understanding of high-Zmaterial erosion and re-deposition in low-Zwall environment in DIII-D. Nuclear Fusion, 2017, 57, 056016.	3.5	16
39	Use of reconstructed 3D VMEC equilibria to match effects of toroidally rotating discharges in DIII-D. Nuclear Fusion, 2017, 57, 016013.	3.5	11
40	ELM suppression in helium plasmas with 3D magnetic fields. Nuclear Fusion, 2017, 57, 086016.	3.5	9
41	Limiter observations during W7-X first plasmas. Nuclear Fusion, 2017, 57, 056036.	3.5	28
42	High-Z material erosion and its control in DIII-D carbon divertor. Nuclear Materials and Energy, 2017, 12, 247-252.	1.3	4
43	The Design and Use of Tungsten Coated TZM Molybdenum Tile Inserts in the DIII-D Tokamak Divertor. Fusion Science and Technology, 2017, 72, 634-639.	1.1	20
44	Comparison of heat flux measurement techniques during the DIII-D metal ring campaign. Physica Scripta, 2017, T170, 014007.	2.5	4
45	Modeling of 3D magnetic equilibrium effects on edge turbulence stability during RMP ELM suppression in tokamaks. Nuclear Fusion, 2017, 57, 116003.	3.5	13
46	DiMES PMI research at DIII-D in support of ITER and beyond. Fusion Engineering and Design, 2017, 124, 196-201.	1.9	18
47	Changes in divertor conditions in response to changing core density with RMPs. Nuclear Fusion, 2017, 57, 076038.	3.5	11
48	Thermal management of tungsten leading edges in DIII-D. Fusion Engineering and Design, 2017, 124, 271-275.	1.9	6
49	OEDGE modeling for the planned tungsten ring experiment on DIII-D. Nuclear Materials and Energy, 2017, 12, 755-761.	1.3	10
50	Study of the impact of resonant magnetic perturbation fields on gross tungsten erosion using DiMES samples in DIII-D. Physica Scripta, 2017, T170, 014048.	2.5	2
51	The inter-ELM tungsten erosion profile in DIII-D H-mode discharges and benchmarking with ERO+OEDGE modeling. Nuclear Fusion, 2017, 57, 056034.	3.5	47
52	Tungsten erosion by unipolar arcing in DIII-D. Physica Scripta, 2017, T170, 014034.	2.5	25
53	Helical core reconstruction of a DIII-D hybrid scenario tokamak discharge. Nuclear Fusion, 2017, 57, 076015.	3.5	14
54	Measurements of tungsten migration in the DIII-D divertor. Physica Scripta, 2017, T170, 014041.	2.5	10

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55	Parallel Reconstruction of Three Dimensional Magnetohydrodynamic Equilibria in Plasma Confinement Devices. , 2017, , .		4
56	Evaluation of thermal helium beam and line-ratio fast diagnostic on the National Spherical Torus Experiment-Upgrade. Physics of Plasmas, 2016, 23, .	1.9	16
57	Developing and validating advanced divertor solutions on DIII-D for next-step fusion devices. Nuclear Fusion, 2016, 56, 126010.	3.5	14
58	Spectral survey of helium lines in a linear plasma device for use in HELIOS imaging. Review of Scientific Instruments, 2016, 87, 11E711.	1.3	6
59	Spectroscopic imaging of limiter heat and particle fluxes and the resulting impurity sources during Wendelstein 7-X startup plasmas. Review of Scientific Instruments, 2016, 87, 11D606.	1.3	19
60	Evidence of Toroidally Localized Turbulence with Applied 3D Fields in the DIII-D Tokamak. Physical Review Letters, 2016, 117, 135001.	7.8	21
61	PARVMEC: An Efficient, Scalable Implementation of the Variational Moments Equilibrium Code. , 2016, , .		6
62	Experimental evidence of edge intrinsic momentum source driven by kinetic ion loss and edge radial electric fields in tokamaks. Physics of Plasmas, 2016, 23, 092506.	1.9	27
63	Impurity ion flow and temperature measured in a detached divertor with externally applied non-axisymmetric fields on DIII-D. Journal of Nuclear Materials, 2015, 463, 524-527.	2.7	1
64	Heat flux management via advanced magnetic divertor configurations and divertor detachment. Journal of Nuclear Materials, 2015, 463, 1186-1190.	2.7	30
65	Electron pressure balance in the SOL through the transition to detachment. Journal of Nuclear Materials, 2015, 463, 533-536.	2.7	56
66	Advances in the physics understanding of ELM suppression using resonant magnetic perturbations in DIII-D. Nuclear Fusion, 2015, 55, 023002.	3.5	62
67	OEDGE modeling of DIII-D density scan discharges leading to detachment. Journal of Nuclear Materials, 2015, 463, 565-568.	2.7	0
68	Regularization of soft-X-ray imaging in the DIII-D tokamak. Journal of Computational Physics, 2015, 289, 83-95.	3.8	17
69	Connection between plasma response and resonant magnetic perturbation (RMP) edge localized mode (ELM) suppression in DIII-D. Plasma Physics and Controlled Fusion, 2015, 57, 104006.	2.1	23
70	Dynamic plasma-wall modeling of ELMy H-mode with UEDGE-MB-W. Journal of Nuclear Materials, 2015, 463, 705-708.	2.7	7
71	Plasma response measurements of non-axisymmetric magnetic perturbations on DIII-D via soft x-ray	1.9	8
72	Multi-fluid transport code modeling of time-dependent recycling in ELMy H-mode. Physics of Plasmas, 2014, 21, .	1.9	15

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73	Impact of plasma response on plasma displacements in DIII-D during application of external 3D perturbations. Nuclear Fusion, 2014, 54, 064007.	3.5	20
74	Detailed OEDGE modeling of core-pedestal fueling in DIII-D. Journal of Nuclear Materials, 2013, 438, S651-S654.	2.7	1
75	The effect of thermo-oxidation on plasma performance and in-vessel components in DIII-D. Nuclear Fusion, 2013, 53, 073008.	3.5	11
76	Reduction of edge localized mode intensity on DIII-D by on-demand triggering with high frequency pellet injection and implications for ITER. Physics of Plasmas, 2013, 20, .	1.9	30
77	Role of plasma response in displacements of the tokamak edge due to applied non-axisymmetric fields. Nuclear Fusion, 2013, 53, 073042.	3.5	58
78	Reduction of Edge-Localized Mode Intensity Using High-Repetition-Rate Pellet Injection in Tokamak<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>H</mml:mi></mml:math>-Mode Plasmas. Physical Review Letters, 2013, 110, 245001.	7.8	100
79	Initial Testing of Optical Arc Detector inside 285/300 Fast Wave Antenna Box on DIII-D. Fusion Science and Technology, 2013, 64, 530-532.	1.1	0
80	Resonant features of energy and particle transport during application of resonant magnetic perturbation fields at TEXTOR and DIII-D. Nuclear Fusion, 2012, 52, 043005.	3.5	27
81	HELIOS: A helium line-ratio spectral-monitoring diagnostic used to generate high resolution profiles near the ion cyclotron resonant heating antenna on TEXTOR. Review of Scientific Instruments, 2012, 83, 10D722.	1.3	13
82	Experimental imaging of separatrix splitting on DIII-D. Nuclear Fusion, 2012, 52, 122001.	3.5	24
83	Soft X-Ray Imaging Design and Analysis Methods on DIII-D. Plasma and Fusion Research, 2011, 6, 2402041-2402041.	0.7	2
84	OEDGE modeling of the DIII-D double null <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.else. Journal	2.7	4
85	Implementation of a new atomic basis for the He I equilibrium line ratio technique for electron temperature and density diagnostic in the SOL for H-mode plasmas in DIII-D. Journal of Nuclear Materials, 2011, 415, S1155-S1158.	2.7	4
86	Toroidally resolved structure of divertor heat flux in RMP H-mode discharges on DIII-D. Journal of Nuclear Materials, 2011, 415, S901-S905.	2.7	8
87	Quantification of chemical erosion in the DIII-D divertor and implications for ITER. Journal of Nuclear Materials, 2011, 415, S141-S144.	2.7	2
88	The influence of three-dimensional stochastic magnetic boundaries on plasma edge transport and the resulting plasma wall interaction. Journal of Nuclear Materials, 2011, 415, S886-S893.	2.7	26
89	Global particle balance measurements in DIII-D H-mode discharges. Journal of Nuclear Materials, 2011, 415, S740-S747.	2.7	6
90	Lâ€“H transition studies on DIII-D to determine H-mode access for operational scenarios in ITER. Nuclear Fusion, 2011, 51, 103020.	3.5	81

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91	Poloidally and radially resolved parallel D+ velocity measurements in the DIII-D boundary and comparison to neoclassical computations. Physics of Plasmas, 2011, 18, 032510.	1.9	27
92	Influence of the Resonant Magnetic Perturbation on the Plasma Boundary in DIIIâ€Ð. Contributions To Plasma Physics, 2010, 50, 701-707.	1.1	6
93	Numerical analysis of the effects of normalized plasma pressure on RMP ELM suppression in DIII-D. Nuclear Fusion, 2010, 50, 034010.	3.5	8
94	ELM suppression by resonant magnetic perturbation in high-performance, stationary plasmas. Nuclear Fusion, 2010, 50, 045006.	3.5	9
95	The effects of an open and closed divertor on particle exhaust during edge-localized mode suppression by resonant magnetic perturbations in DIII-D. Nuclear Fusion, 2010, 50, 034011.	3.5	20
96	Limits to the H-mode pedestal pressure gradient in DIII-D. Nuclear Fusion, 2010, 50, 064002.	3.5	34
97	ELM destabilization by externally applied non-axisymmetric magnetic perturbations in NSTX. Nuclear Fusion, 2010, 50, 034012.	3.5	49
98	2D soft x-ray system on DIII-D for imaging the magnetic topology in the pedestal region. Review of Scientific Instruments, 2010, 81, 10E534.	1.3	12
99	Simulation of a tangential soft x-ray imaging system. Review of Scientific Instruments, 2010, 81, 10E533.	1.3	4
100	On Demand Triggering of Edge Localized Instabilities Using External Nonaxisymmetric Magnetic Perturbations in Toroidal Plasmas. Physical Review Letters, 2010, 104, 045001.	7.8	66
101	Validation of on- and off-axis neutral beam current drive against experiment in DIII-D. Physics of Plasmas, 2009, 16, 092508.	1.9	23
102	Overview of the results on divertor heat loads in RMP controlled H-mode plasmas on DIII-D. Nuclear Fusion, 2009, 49, 095013.	3.5	136
103	Demonstration of particle exhaust control during ELM suppression by resonant magnetic perturbations in DIII-D. Nuclear Fusion, 2009, 49, 092001.	3.5	10
104	Experimental comparison of recycling and pumping changes during resonant magnetic perturbation experiments at low and high collisionality in DIII-D. Journal of Nuclear Materials, 2009, 390-391, 486-489.	2.7	8
105	Fluid modeling of an ELMing H-mode and a RMP H-mode. Journal of Nuclear Materials, 2009, 390-391, 299-302.	2.7	9
106	Off-axis neutral beam current drive for advanced scenario development in DIII-D. Nuclear Fusion, 2009, 49, 065031.	3.5	48
107	Resonant Pedestal Pressure Reduction Induced by a Thermal Transport Enhancement due to Stochastic Magnetic Boundary Layers in High Temperature Plasmas. Physical Review Letters, 2009, 103, 165005.	7.8	58
108	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

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109	Aspects of three dimensional transport for ELM control experiments in ITER-similar shape plasmas at low collisionality in DIII-D. Plasma Physics and Controlled Fusion, 2008, 50, 124029.	2.1	89
110	Filterscopes: Spectral line monitors for long-pulse plasma devices. Review of Scientific Instruments, 2008, 79, 10F330.	1.3	13
111	Equilibrium properties at very low aspect ratio in the Pegasus toroidal experiment. Nuclear Fusion, 2008, 48, 095006.	3.5	16
112	Initial Experiments at High Normalized Current in the Pegasus Toroidal Experiment. Journal of Fusion Energy, 2007, 26, 221-225.	1.2	4
113	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
114	The upgraded Pegasus Toroidal Experiment. Nuclear Fusion, 2006, 46, S603-S612.	3.5	34
115	Progress towards high-performance, steady-state spherical torus. Plasma Physics and Controlled Fusion, 2003, 45, A335-A350.	2.1	25
116	Performance and stability of near-unity aspect ratio plasmas in the Pegasus Toroidal Experiment. Physics of Plasmas, 2003, 10, 1705-1711.	1.9	18