Daniel Brunner

List of Publications by Year
in descending order

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54 papers	1,485 citations	331670 21 h-index	345221 36 g-index
54 all docs	54 docs citations	54 times ranked	1112 citing authors

#	Article	IF	Citations
1	Overview of the SPARC tokamak. Journal of Plasma Physics, 2020, 86, .	2.1	181
2	20 years of research on the Alcator C-Mod tokamak. Physics of Plasmas, 2014, 21, .	1.9	88
3	High confinement/high radiated power H-mode experiments in Alcator C-Mod and consequences for International Thermonuclear Experimental Reactor (ITER) QDTâ€‰=â€‰10 operation. Physics of Plasmas, 2011, 18, .	1.9	84
4	ADX: a high field, high power density, advanced divertor and RF tokamak. Nuclear Fusion, 2015, 55, 053020.	3.5	82
5	Effect of N2, Ne and Ar seeding on Alcator C-Mod H-mode confinement. Journal of Nuclear Materials, 2011, 415, S340-S344.	2.7	73
6	Scaling of the power exhaust channel in Alcator C-Mod. Physics of Plasmas, 2011, 18, 056104.	1.9	69
7	New insights on boundary plasma turbulence and the quasi-coherent mode in Alcator C-Mod using a Mirror Langmuir Probe. Physics of Plasmas, 2014, 21, .	1.9	61
8	Conceptual design study for heat exhaust management in the ARC fusion pilot plant. Fusion Engineering and Design, 2018, 137, 221-242.	1.9	56
9	High-resolution heat flux width measurements at reactor-level magnetic fields and observation of a unified width scaling across confinement regimes in the Alcator C-Mod tokamak. Nuclear Fusion, 2018, 58, 094002.	3.5	41
10	Power requirements for superior H-mode confinement on Alcator C-Mod: experiments in support of ITER. Nuclear Fusion, 2011, 51, 083007.	3.5	40
11	Divertor heat flux challenge and mitigation in SPARC. Journal of Plasma Physics, 2020, 86, .	2.1	40
12	Divertor IR thermography on Alcator C-Mod. Review of Scientific Instruments, 2010, 81, 10E513.	1.3	37
13	Surface thermocouples for measurement of pulsed heat flux in the divertor of the Alcator C-Mod tokamak. Review of Scientific Instruments, 2012, 83, 033501.	1.3	37
14	Overview of the SPARC physics basis towards the exploration of burning-plasma regimes in high-field, compact tokamaks. Nuclear Fusion, 2022, 62, 042003.	3.5	37
15	Physics and performance of the I-mode regime over an expanded operating space on Alcator C-Mod. Nuclear Fusion, 2017, 57, 126039.	3.5	36
16	Observation of Efficient Lower Hybrid Current Drive at High Density in Diverted Plasmas on the Alcator C-Mod Tokamak. Physical Review Letters, 2018, 121, 055001.	7.8	33
17	Measurements of ion cyclotron parametric decay of lower hybrid waves at the high-field side of Alcator C-Mod. Plasma Physics and Controlled Fusion, 2013, 55, 052001.	2.1	32
18	Progress towards steady-state regimes in Alcator C-Mod. Nuclear Fusion, 2013, 53, 113028.	3.5	28

#	Article	IF	Citations
19	Scaling of L-mode heat flux for ITER and COMPASS-U divertors, based on five tokamaks. Nuclear Fusion, 2020, 60, 066016.	3.5	26
20	Feedback system for divertor impurity seeding based on real-time measurements of surface heat flux in the Alcator C-Mod tokamak. Review of Scientific Instruments, 2016, 87, 023504.	1.3	24
21	An assessment of ion temperature measurements in the boundary of the Alcator C-Mod tokamak and implications for ion fluid heat flux limiters. Plasma Physics and Controlled Fusion, 2013, 55, 095010.	2.1	23
22	Intermittent electron density and temperature fluctuations and associated fluxes in the Alcator C-Mod scrape-off layer. Plasma Physics and Controlled Fusion, 2018, 60, 065002.	2.1	22
23	Scanning retarding field analyzer for plasma profile measurements in the boundary of the Alcator C-Mod tokamak. Review of Scientific Instruments, 2013, 84, 033502.	1.3	21
24	The dependence of divertor power sharing on magnetic flux balance in near double-null configurations on Alcator C-Mod. Nuclear Fusion, 2018, 58, 076010.	3.5	17
25	Attainment of a stable, fully detached plasma state in innovative divertor configurations. Physics of Plasmas, 2017, 24, .	1.9	16
26	Surface heat flux feedback controlled impurity seeding experiments with Alcator C-Modâ€™s high-Zvertical target plate divertor: performance, limitations and implications for fusion power reactors. Nuclear Fusion, 2017, 57, 086030.	3.5	16
27	Plasma fluctuations in the scrape-off layer and at the divertor target in Alcator C-Mod and their relationship to divertor collisionality and density shoulder formation. Nuclear Materials and Energy, 2019, 19, 295-299.	1.3	16
28	Comparison of heat flux measurements by IR thermography and probes in the Alcator C-Mod divertor. Journal of Nuclear Materials, 2011, 415, S375-S378.	2.7	15
29	Performance assessment of long-legged tightly-baffled divertor geometries in the ARC reactor concept. Nuclear Fusion, 2019, 59, 106052.	3.5	15
30	Lower hybrid wave edge power loss quantification on the Alcator C-Mod tokamak. Physics of Plasmas, 2016, 23, 056115.	1.9	14
31	Fast imaging of filaments in the X-point region of Alcator C-Mod. Nuclear Materials and Energy, 2017, 12, 989-993.	1.3	14
32	Assessment of X-point target divertor configuration for power handling and detachment front control. Nuclear Materials and Energy, 2017, 12, 918-923.	1.3	14
33	Radiative heat exhaust in Alcator C-Mod I-mode plasmas. Nuclear Fusion, 2019, 59, 046018.	3.5	14
34	Heat-flux footprints for I-mode and EDA H-mode plasmas on Alcator C-Mod. Journal of Nuclear Materials, 2013, 438, S212-S215.	2.7	13
35	Overview of experimental results and code validation activities at Alcator C-Mod. Nuclear Fusion, 2013, 53, 104004.	3.5	13
36	Three-dimensional simulation of H-mode plasmas with localized divertor impurity injection on	1.9	12

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37	Impurity screening behavior of the high-field side scrape-off layer in near-double-null configurations: prospect for mitigating plasmaâ€“material interactions on RF actuators and first-wall components. Nuclear Fusion, 2017, 57, 076021.	3.5	12
38	The flush-mounted rail Langmuir probe array designed for the Alcator C-Mod vertical target plate divertor. Review of Scientific Instruments, 2018, 89, 043512.	1.3	12
39	Statistical properties of the plasma fluctuations and turbulent cross-field fluxes in the outboard mid-plane scrape-off layer of Alcator C-Mod. Nuclear Materials and Energy, 2019, 18, 193-200.	1.3	11
40	Comparison between mirror Langmuir probe and gas-puff imaging measurements of intermittent fluctuations in the Alcator C-Mod scrape-off layer. Journal of Plasma Physics, 2020, 86, .	2.1	11
41	Linear servomotor probe drive system with real-time self-adaptive position control for the Alcator C-Mod tokamak. Review of Scientific Instruments, 2017, 88, 073501.	1.3	10
42	Study of passively stable, fully detached divertor plasma regimes attained in innovative long-legged divertor configurations. Nuclear Fusion, 2020, 60, 016004.	3.5	10
43	Divertor â€˜death-rayâ€™ explained: An artifact of a Langmuir probe operating at negative bias in a high-recycling divertor. Journal of Nuclear Materials, 2013, 438, S1196-S1199.	2.7	8
44	High-resolution disruption halo current measurements using Langmuir probes in Alcator C-Mod. Nuclear Fusion, 2018, 58, 016005.	3.5	8
45	Improved confinement in high-density H-modes via modification of the plasma boundary with lower	1.9	7
46	Design and operation of a high-heat flux, flush-mounted â€˜railâ€™ Langmuir probe array on Alcator C-Mod. Nuclear Materials and Energy, 2017, 12, 1231-1235.	1.3	7
47	Simulation of the SPARC plasma boundary with the UEDGE code. Nuclear Fusion, 2021, 61, 086014.	3.5	6
48	UEDGE modelling of detached divertor operation for longâ€leg divertor geometries in ARC. Contributions To Plasma Physics, 2018, 58, 791-797.	1.1	5
49	An experimental assessment of methods used to compute secondary electron emission yield for tungsten and molybdenum electrodes based on exposure to Alcator C-Mod scrape-off layer plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 035011.	2.1	5
50	Role of the edge and scrape-off layer plasma in lower hybrid current drive experiment on Alcator C-Mod. AIP Conference Proceedings, 2020, , .	0.4	5
51	Impact of perturbative, non-axisymmetric impurity fueling on Alcator C-Mod H-modes. Plasma Physics and Controlled Fusion, 2017, 59, 122002.	2.1	3
52	Outlier classification using autoencoders: Application for fluctuation driven flows in fusion plasmas. Review of Scientific Instruments, 2019, 90, 013505.	1.3	3
53	Edge transport and mode structure of a QCM-like fluctuation driven by the Shoelace antenna. Nuclear Fusion, 2018, 58, 056018.	3.5	2
54	Dependence of the boundary heat flux width on core and edge profiles in Alcator C-Mod. Nuclear Fusion, 0, , .	3.5	0