# William R Wampler

List of Publications by Year
in descending order



| 38 | 1,001 | 430874 | 434195 |
|---|---|---|---|
| papers | citations | 18 h-index | 31 g-index |

| 39 | 39 | 39 | 726 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Precipitation and trapping of hydrogen in copper. Philosophical Magazine and Journal, 1976, 34, 129-141. | 1.7 | 144 |
| 2 | The influence of displacement damage on deuterium retention in tungsten exposed to plasma. Nuclear Fusion, 2009, 49, 115023. | 3.5 | 138 |
| 3 | Effect of He on D retention in W exposed to low-energy, high-fluence (D, He, Ar) mixture plasmas. Nuclear Fusion, 2011, 51, 103021. | 3.5 | 97 |
| 4 | Divertor materials evaluation system (DiMES). Journal of Nuclear Materials, 1998, 258-263, 433-439. | 2.7 | 49 |
| 5 | 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 |
| 6 | Simulation of gross and net erosion of high-Z materials in the DIII-D divertor. Nuclear Fusion, 2016, 56, 016021. | 3.5 | 41 |
| 7 | Model of defect reactions and the influence of clustering in pulse-neutron-irradiated Si. Journal of Applied Physics, 2008, 104, . | 2.5 | 36 |
| 8 | Erosion and deposition of metals and carbon in the DIIIâ€”D divertor. Journal of Nuclear Materials, 1996, 233-237, 791-797. | 2.7 | 33 |
| 9 | DIVIMP modeling of the toroidally symmetrical injection of 13CH4 into the upper SOL of DIII-D. Journal of Nuclear Materials, 2005, 337-339, 124-128. | 2.7 | 27 |
| 10 | Analysis of a tungsten sputtering experiment in DIII-D and code/data validation of high redeposition/reduced erosion. Fusion Engineering and Design, 2015, 94, 67-71. | 1.9 | 25 |
| 11 | Tungsten erosion by unipolar arcing in DIII-D. Physica Scripta, 2017, T170, 014034. | 2.5 | 25 |
| 12 | Deuterium retention in tungsten from exposure to plasma. Physica Scripta, 2009, T138, 014037. | 2.5 | 24 |
| 13 | Net versus gross erosion of high-Zmaterials in the divertor of DIII-D. Physica Scripta, 2014, T159, 014030. | 2.5 | 23 |
| 14 | An experimental comparison of gross and net erosion of Mo in the DIII-D divertor. Journal of Nuclear Materials, 2013, 438, S309-S312. | 2.7 | 22 |
| 15 | 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 |
| 16 | Overview of the recent DiMES and MiMES experiments in DIII-D. Physica Scripta, 2009, T138, 014007. | 2.5 | 20 |
| 17 | Measurements of net erosion and redeposition of molybdenum in DIII-D. Journal of Nuclear Materials, 2013, 438, S822-S826. | 2.7 | 20 |
| 18 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | DiMES PMI research at DIII-D in support of ITER and beyond. Fusion Engineering and Design, 2017, 124, 196-201. | 1.9 | 18 |
| 20 | 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 |
| 21 | Model for transport and reaction of defects and carriers within displacement cascades in gallium arsenide. Journal of Applied Physics, 2015, 117, . | 2.5 | 14 |
| 22 | 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 |
| 23 | ERO modeling and analysis of tungsten erosion and migration from a toroidally symmetric source in the DIII-D divertor. Nuclear Fusion, 2020, 60, 016018. | 3.5 | 13 |
| 24 | 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 |
| 25 | Modeling of ExB effects on tungsten re-deposition and transport in the DIII-D divertor. Nuclear Fusion, 2021, 61, 096018. | 3.5 | 13 |
| 26 | Divertor and midplane materials evaluation system in DIII-D. Journal of Nuclear Materials, 2007, 363-365, 276-281. | 2.7 | 10 |
| 27 | Field dependent emission rates in radiation damaged GaAs. Journal of Applied Physics, 2014, 116, . | 2.5 | 10 |
| 28 | Measurements of tungsten migration in the DIII-D divertor. Physica Scripta, 2017, T170, 014041. | 2.5 | 10 |
| 29 | Indications of an inward pinch in the inner SOL of DIII-D from 13C deposition experiments. Journal of Nuclear Materials, 2009, 390-391, 376-379. | 2.7 | 9 |
| 30 | Plasma interactions with the outboard chamber wall in DIII-D. Journal of Nuclear Materials, 2009, 390-391, 785-788. | 2.7 | 8 |
| 31 | Multiple Analytical Approach to Isotopic Transport Analysis in Magnetic Fusion Devices. Fusion Science and Technology, 2019, 75, 493-498. | 1.1 | 8 |
| 32 | Recombination by band-to-defect tunneling near semiconductor heterojunctions: A theoretical model. Journal of Applied Physics, 2016, 120, . | 2.5 | 7 |
| 33 | Modeling, analysis, and code/data validation of DIII-D tokamak divertor experiments on ELM and non-ELM plasma tungsten sputtering erosion. Nuclear Fusion, 2020, 60, 126026. | 3.5 | 7 |
| 34 | Reduced model of high-Z impurity redeposition and erosion in tokamak divertor and its application to DIII-D experiments. Plasma Physics and Controlled Fusion, 2019, 61, 125015. | 2.1 | 6 |
| 35 | Net versus gross erosion of silicon carbide in DIII-D divertor. Physica Scripta, 2020, T171, 014064. | 2.5 | 5 |
| 36 | High-Z material erosion and its control in DIII-D carbon divertor. Nuclear Materials and Energy, 2017, 12, 247-252. | 1.3 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Temperature dependence of deuterium retention at displacement damage in tungsten. Physica Scripta, 2020, T171, 014012. | 2.5 | 2 |
| 38 | Optimization of target lifetime for production of 14ÂMeV neutrons. Nuclear Instruments & Methods in Physics Research B, 2020, 485, 26-31. | 1.4 | 0 |