Yasuhisa Oya

List of Publications by Year
in descending order

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138	1,883	257450 24	361022 35
papers	citations	h-index	g-index

138	138	138	911
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deuterium trapping at defects created with neutron and ion irradiations in tungsten. Nuclear Fusion, 2013, 53, 073006.	3.5	99
2	Trapping of hydrogen isotopes in radiation defects formed in tungsten by neutron and ion irradiations. Journal of Nuclear Materials, 2013, 438, S114-S119.	2.7	76
3	First result of deuterium retention in neutron-irradiated tungsten exposed to high flux plasma in TPE. Journal of Nuclear Materials, 2011, 415, S667-S671.	2.7	65
4	Irradiation effect on deuterium behaviour in low-dose HFIR neutron-irradiated tungsten. Nuclear Fusion, 2015, 55, 013008.	3.5	61
5	Dust generation in tokamaks: Overview of beryllium and tungsten dust characterisation in JET with the ITER-like wall. Fusion Engineering and Design, 2018, 136, 579-586.	1.9	52
6	The deuterium depth profile in neutron-irradiated tungsten exposed to plasma. Physica Scripta, 2011, T145, 014051.	2.5	50
7	Overview of the USâ€“Japan collaborative investigation on hydrogen isotope retention in neutron-irradiated and ion-damaged tungsten. Fusion Engineering and Design, 2012, 87, 1166-1170.	1.9	43
8	Comparison of deuterium retention for ion-irradiated and neutron-irradiated tungsten. Physica Scripta, 2011, T145, 014050.	2.5	42
9	Thermal desorption behavior of deuterium for 6 MeV Fe ion irradiated W with various damage concentrations. Journal of Nuclear Materials, 2015, 461, 336-340.	2.7	41
10	Recent progress of tungsten R&D for fusion application in Japan. Physica Scripta, 2011, T145, 014029.	2.5	39
11	Investigation of hydrogen recycling in long-duration discharges and its modification with a hot wall in the spherical tokamak QUEST. Nuclear Fusion, 2017, 57, 126061.	3.5	37
12	Trapping and Detrapping Mechanisms of Deuterium in SiC Studied by XPS and TDS Techniques. Materials Transactions, 2005, 46, 552-556.	1.2	33
13	Release kinetics of tritium generation in neutron irradiated biphasic Li2TiO3â€“Li4SiO4 ceramic breeder. Journal of Nuclear Materials, 2019, 522, 286-293.	2.7	33
14	Chemical behavior of energetic deuterium implanted into tungsten carbide. Fusion Engineering and Design, 2006, 81, 295-299.	1.9	31
15	Effect of neutron energy and fluence on deuterium retention behaviour in neutron irradiated tungsten. Physica Scripta, 2016, T167, 014068.	2.5	31
16	Deuterium retention in W and W-Re alloy irradiated with high energy Fe and W ions: Effects of irradiation temperature. Nuclear Materials and Energy, 2016, 9, 93-97.	1.3	31
17	Migration of hydrogen isotopes in lithium metatitanate. Journal of Nuclear Materials, 2013, 439, 159-167.	2.7	27
18	Deuterium trapping by irradiation damage in tungsten induced by different displacement processes. Fusion Engineering and Design, 2013, 88, 1749-1752.	1.9	27

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19	Depth profile and retention of hydrogen isotopes in graphite tiles used in the W-shaped divertor of JT-60U. Journal of Nuclear Materials, 2004, 329-333, 785-789.	2.7	26
20	Retention characteristics of hydrogen isotopes in JT-60U. Journal of Nuclear Materials, 2005, 337-339, 553-559.	2.7	26
21	Annealing effects on deuterium retention behavior in damaged tungsten. Nuclear Materials and Energy, 2016, 9, 141-144.	1.3	26
22	Preparation of Li 2 TiO 3 ceramic with nano-sized pores by ultrasonic-assisted solution combustion. Journal of the European Ceramic Society, 2017, 37, 3595-3602.	5.7	26
23	Measurement of deuterium and helium by glow-discharge optical emission spectroscopy for plasmaâ€“surface interaction studies. Fusion Engineering and Design, 2012, 87, 1091-1094.	1.9	25
24	Retention of Hydrogen Isotopes in Neutron Irradiated Tungsten. Materials Transactions, 2013, 54, 437-441.	1.2	25
25	Deuterium retention in neutron-irradiated single-crystal tungsten. Fusion Engineering and Design, 2018, 136, 1161-1167.	1.9	24
26	Effect of helium irradiation on deuterium permeation behavior in tungsten. Journal of Nuclear Materials, 2017, 490, 242-246.	2.7	23
27	Hydrogen isotope behavior in in-vessel components used for DD plasma operation of JT-60U by SIMS and XPS technique. Journal of Nuclear Materials, 2003, 313-316, 209-213.	2.7	22
28	Hydrogen isotope retention of JT-60U W-shaped divertor tiles exposed to DD discharges. Journal of Nuclear Materials, 2006, 357, 115-125.	2.7	21
29	Comparison of tritium release behavior in Li2TiO3 and promising core-shell Li2TiO3â€“Li4SiO4 biphasic ceramic pebbles. Journal of Nuclear Materials, 2020, 539, 152330.	2.7	21
30	Tritium retention characteristics in dust particles in JET with ITER-like wall. Nuclear Materials and Energy, 2018, 17, 279-283.	1.3	20
31	Tritium release kinetics in lithium orthosilicate ceramic pebbles irradiated with low thermal-neutron fluence. Journal of Nuclear Materials, 2013, 438, 46-50.	2.7	19
32	Recent progress of hydrogen isotope behavior studies for neutron or heavy ion damaged W. Fusion Engineering and Design, 2016, 113, 211-215.	1.9	19
33	Behavior of hydrogen isotope retention in carbon implanted tungsten. Journal of Nuclear Materials, 2009, 390-391, 622-625.	2.7	18
34	A multi-technique analysis of deuterium trapping and near-surface precipitate growth in plasma-exposed tungsten. Journal of Applied Physics, 2015, 118, 073301.	2.5	18
35	Gas-driven permeation of deuterium through tungsten and tungsten alloys. Fusion Engineering and Design, 2016, 109-111, 104-108.	1.9	17
36	Defect annealing and thermal desorption of deuterium in low dose HFIR neutron-irradiated tungsten. Journal of Nuclear Materials, 2015, 463, 1005-1008.	2.7	16

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37	Helium retention behavior in simultaneously He+-H2+ irradiated tungsten. Journal of Nuclear Materials, 2018, 502, 289-294.	2.7	15
38	Correlation of surface chemical states with hydrogen isotope retention in divertor tiles of JET with ITER-Like Wall. Fusion Engineering and Design, 2018, 132, 24-28.	1.9	15
39	Retention and re-emission behavior of hydrogen isotopes in SiC. Physica Scripta, 2003, T103, 81.	2.5	15
40	Major results of the cooperative program between JAERI and universities using plasma facing materials in JT-60U. Journal of Nuclear Materials, 2004, 329-333, 74-80.	2.7	14
41	Hydrogen retention and carbon deposition in plasma facing components and the shadowed area of JT-60U. Nuclear Fusion, 2007, 47, 1577-1582.	3.5	14
42	Effect of surface oxide layer on deuterium permeation behaviors through a type 316 stainless steel. Fusion Engineering and Design, 2012, 87, 580-583.	1.9	14
43	Micro-/nano-characterization of the surface structures on the divertor tiles from JET ITER-like wall. Fusion Engineering and Design, 2017, 116, 1-4.	1.9	14
44	Deuterium permeation behavior in iron-irradiated erbium oxide coating. Fusion Engineering and Design, 2017, 124, 915-918.	1.9	14
45	A tritium permeation â€˜short cutâ€™ for plasma-facing components of fusion reactors. Nuclear Fusion, 2019, 59, 014003.	3.5	14
46	Enhancement of hydrogen isotope retention capacity for the impurity deposited tungsten by long-term plasma exposure in LHD. Fusion Engineering and Design, 2013, 88, 1699-1703.	1.9	13
47	The damage depth profile effect on hydrogen isotope retention behavior in heavy ion irradiated tungsten. Fusion Engineering and Design, 2017, 125, 468-472.	1.9	13
48	Analyses of microstructure, composition and retention of hydrogen isotopes in divertor tiles of JET with the ITER-like wall. Physica Scripta, 2017, T170, 014031.	2.5	13
49	Trapping behaviour of deuterium ions implanted into tungsten simultaneously with carbon ions. Physica Scripta, 2009, T138, 014050.	2.5	12
50	Dynamics of hydrogen isotope trapping and detrapping for tungsten under simultaneous triple ion		

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55	Dependence of implantation temperature on chemical behavior of energetic deuterium implanted into tungsten carbide. Journal of Nuclear Materials, 2007, 363-365, 910-914.	2.7	11
56	Behaviors of Deuterium Retention and Microstructure Change of Tungsten Simultaneously Implanted with Carbon and/or Helium Ions. Materials Transactions, 2013, 54, 430-436.	1.2	11
57	Deuterium retention in molten salt electrodeposition tungsten coatings. Fusion Engineering and Design, 2016, 113, 265-268.	1.9	11
58	Deuterium permeation behavior for damaged tungsten by ion implantation. Journal of Nuclear Science and Technology, 2016, 53, 402-405.	1.3	11
59	Particle balance investigation with the combination of the hydrogen barrier model and rate equations of hydrogen state in long duration discharges on an all-metal plasma facing wall in QUEST. Nuclear Fusion, 2019, 59, 076007.	3.5	11
60	D retention and depth profile behavior for single crystal tungsten with high temperature neutron irradiation. Journal of Nuclear Materials, 2020, 539, 152323.	2.7	11
61	Hydrogen Isotope Behavior in Type 316 Stainless Steel Sorbed by Various Methods. Fusion Science and Technology, 2005, 48, 597-600.	1.1	10
62	Hydrogen isotope distributions and retentions in the inner divertor tile of JT-60U. Fusion Engineering and Design, 2005, 75-79, 945-949.	1.9	10
63	Deuterium permeation through monoclinic erbium oxide coating. Fusion Engineering and Design, 2018, 133, 121-124.	1.9	10
64	Effect of carbon impurity reduction on hydrogen isotope retention in QUEST high temperature wall. Fusion Engineering and Design, 2019, 146, 1480-1484.	1.9	10
65	Investigation of remaining tritium in the LHD vacuum vessel after the first deuterium experimental campaign. Physica Scripta, 2020, T171, 014068.	2.5	10
66	Correlation between hydrogen isotope profiles and surface structure of divertor tiles in JT-60U. Journal of Nuclear Materials, 2004, 329-333, 894-898.	2.7	9
67	Interaction between hydrogen isotopes and damaged structures produced by He+ implantation in SiC. Fusion Engineering and Design, 2006, 81, 987-992.	1.9	9
68	Temperature dependence of retention of energetic deuterium and carbon simultaneously implanted into tungsten. Journal of Nuclear Materials, 2011, 417, 555-558.	2.7	9
69	Retention and desorption behavior of tritium in Si related ceramics. Journal of Nuclear Materials, 2013, 438, 22-25.	2.7	9
70	Enhancement of hydrogen isotope retention in tungsten exposed to LHD plasmas. Journal of Nuclear Materials, 2013, 438, S1055-S1058.	2.7	9
71	Effect of Heating Temperature on Deuterium Retention Behavior for Helium/Carbon Implanted Tungsten. Fusion Science and Technology, 2015, 68, 531-534.	1.1	9
72	Effect of impurity deposition layer formation on D retention in LHD plasma exposed W. Nuclear Materials and Energy, 2016, 9, 84-88.	1.3	9

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73	Effects of helium implantation on hydrogen isotope retention behavior in SiC. Journal of Nuclear Materials, 2007, 363-365, 933-937.	2.7	8
74	Correlation between deuterium retention and microstructure change for tungsten under triple ion implantation. Physica Scripta, 2009, T138, 014051.	2.5	8
75	Comparison of hydrogen isotope retention and irradiation damage behaviors in tungsten and SS-316 with simultaneous C+â€“D2+ implantation. Fusion Engineering and Design, 2011, 86, 1776-1779.	1.9	8
76	Deuterium retention in SiC coated graphite by D2+ implantation. Fusion Engineering and Design, 2011, 86, 1689-1692.	1.9	8
77	Comparison of hydrogen isotope retention for tungsten probes in LHD vacuum vessel during the experimental campaigns in 2011 and 2012. Fusion Engineering and Design, 2014, 89, 1091-1095.	1.9	8
78	Influence of carbon-dominated deposition layer on He retention and desorption in tungsten. Fusion Engineering and Design, 2016, 112, 117-122.	1.9	8
79	Kinetics of double strand breaks of DNA in tritiated water evaluated using single molecule observation method. Fusion Engineering and Design, 2019, 146, 100-102.	1.9	8
80	Modeling and simulation for surface helium effect on hydrogen isotopes diffusion and trapping/detrapping behavior in plasma facing materials. Journal of Nuclear Materials, 2020, 537, 152227.	2.7	8
81	Chemical states and deuterium retention behavior of vacuum plasma sprayed tungsten coatings. Journal of Nuclear Materials, 2011, 417, 551-554.	2.7	7
82	Deuterium retention behavior in simultaneously He+â€“D2+ implanted tungsten. Nuclear Materials and Energy, 2018, 16, 76-81.	1.3	7
83	Development of the Tritium Transport Model for Pebbles of Li₂TiO₃. Plasma and Fusion Research, 2018, 13, 3405048-3405048.	0.7	7
84	Helium and hydrogen interaction in tungsten simultaneously irradiated by He+-H2+ at high temperature. International Journal of Hydrogen Energy, 2020, 45, 9959-9968.	7.1	7
85	Global distribution of tritium in JET with the ITER-like wall. Nuclear Materials and Energy, 2021, 26, 100930.	1.3	7
86	Hydrogen isotope behavior in the first wall of JT-60U after deuterium plasma operation. Journal of Nuclear Materials, 2007, 367-370, 1266-1270.	2.7	6
87	Influence of tungstenâ€“carbon mixed layer and irradiation defects on deuterium retention behavior in tungsten. Fusion Engineering and Design, 2013, 88, 1827-1830.	1.9	6
88	Surface or bulk He existence effect on deuterium retention in Fe ion damaged W. Nuclear Materials and Energy, 2018, 16, 217-220.	1.3	6
89	Influence of dynamic annealing of irradiation defects on the deuterium retention behaviors in tungsten irradiated with neutron. Fusion Engineering and Design, 2019, 146, 1624-1627.	1.9	6
90	Tritium distribution analysis of Be limiter tiles from JET-ITER like wall campaigns using imaging plate technique and Î²-ray induced X-ray spectrometry. Fusion Engineering and Design, 2020, 160, 111959.	1.9	6

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91	Hydrogen Adsorption Behavior on Stainless Steel for Cooling Pipe in Fusion Reactor. Fusion Science and Technology, 2003, 44, 359-363.	1.1	5
92	Temperature Dependence of Oxide Layer Formation on Hydrogen Isotope Retention in Type 316 Stainless Steel. Fusion Science and Technology, 2009, 56, 799-803.	1.1	5
93	Formation of lithium-tritide by hot atom reactions of tritium produced in Pb-16Li. Fusion Engineering and Design, 2013, 88, 2328-2331.	1.9	5
94	Hydrogen Isotope Retention and Permeation in Neutron-Irradiated Tungsten and Tungsten Alloys Under PHENIX Collaboration. Fusion Science and Technology, 2017, 72, 652-659.	1.1	5
95	Impact of Annealing on Deuterium Retention Behavior in Damaged W. Fusion Science and Technology, 2017, 72, 785-788.	1.1	5
96	Plasma-wall interaction on the divertor tiles of JET ITER-like wall from the viewpoint of micro/nanoscopic observations. Fusion Engineering and Design, 2018, 136, 199-204.	1.9	5
97	Estimation of fuel particle balance in steady state operation with hydrogen barrier model. Nuclear Materials and Energy, 2019, 19, 544-549.	1.3	5
98	Effects of Helium Seeding on Deuterium Retention in Neutron-Irradiated Tungsten. Fusion Science and Technology, 2021, 77, 76-79.	1.1	5
99	Interaction of Hydrogen Isotopes with Radiation Damaged Tungsten. Advances in Intelligent Systems and Computing, 2018, , 41-49.	0.6	5
100	Behavior of deuterium retention and surface morphology for VPSâ€“W/F82H. Journal of Nuclear Materials, 2013, 442, S242-S245.	2.7	4
101	Measurement of thickness of film deposited on the plasma-facing wall in the QUEST tokamak by colorimetry. Review of Scientific Instruments, 2017, 88, 093502.	1.3	4
102	Influence of mixed material layer formation on hydrogen isotope and He retentions in W exposed to 2014 LHD experiment campaign. Fusion Engineering and Design, 2017, 125, 458-462.	1.9	4
103	Detection of radioactive materials from the Fukushima Daiichi Nuclear Power Plant accident at Shizuoka-city. Radiation Safety Management, 2013, 12, 16-21.	0.4	4
104	Evaluation of hydrogen retention behavior for damaged tungsten exposed to hydrogen plasma at QUEST with high temperature wall. Fusion Engineering and Design, 2022, 176, 113020.	1.9	4
105	Hydrogen isotope behavior and its interaction with post irradiated energetic helium in SiC. Journal of Radioanalytical and Nuclear Chemistry, 2007, 272, 639-644.	1.5	3
106	Dynamic deuterium recycling on tungsten under carbonâ€“deuterium implantation circumstance. Journal of Nuclear Materials, 2013, 438, S1117-S1120.	2.7	3
107	Effect of sequential Fe 2+ â^' C + implantation on deuterium retention in W. Fusion Engineering and Design, 2017, 124, 231-234.	1.9	3
108	Comparison of Hydrogen Isotope Retention in Divertor Tiles of JET with the ITER-Like Wall Following Campaigns in 2011â€“2012 and 2015â€“2016. Fusion Science and Technology, 2020, 76, 439-445.	1.1	3

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109	Hydrogen isotope exchange at the surface of C-W mixed material layer on tungsten by gas exposure. Fusion Engineering and Design, 2020, 157, 111633.	1.9	3
110	Overview of recent progress on steady state operation of all-metal plasma facing wall device QUEST. Nuclear Materials and Energy, 2021, 27, 101013.	1.3	3
111	Investigation on tritium retention and surface properties on the first wall in the large helical Device. Nuclear Materials and Energy, 2021, 27, 100906.	1.3	3
112	Deuterium retention in tungsten irradiated by high-dose neutrons at high temperature. Nuclear Materials and Energy, 2021, 27, 100980.	1.3	3
113	Numerical analysis of deuterium migration behaviors in tungsten damaged by fast neutron by means of gas absorption method. Fusion Engineering and Design, 2021, 168, 112635.	1.9	3
114	Protective behavior of tea catechins against DNA double strand breaks produced by radiations with different linear energy transfer. Fusion Engineering and Design, 2021, 172, 112700.	1.9	3
115	An overview of tritium retention in dust particles from the JET-ILW divertor. Physica Scripta, 2022, 97, 024008.	2.5	3
116	Effect of rhenium addition on deuterium retention in neutron-irradiated tungsten. Journal of Nuclear Materials, 2022, , 153774.	2.7	3
117	Tritium recovery behavior for tritium breeder Li4SiO4-Li2TiO3 biphasic material. Journal of Nuclear Materials, 2022, 567, 153838.	2.7	3
118	Fluence dependence of deuterium retention in oxidized SS-316. Journal of Nuclear Materials, 2011, 417, 1154-1157.	2.7	2
119	Dissolution behavior of 137Cs absorbed on the green tea leaves. Journal of Radioanalytical and Nuclear Chemistry, 2015, 303, 1539-1542.	1.5	2
120	Impact of temperature during He+implantation on deuterium retention in tungsten, tungsten with carbon deposit and tungsten carbide. Physica Scripta, 2016, T167, 014037.	2.5	2
121	Progress in the U.S./Japan PHENIX Project for the Technological Assessment of Plasma Facing Components for DEMO Reactors. Fusion Science and Technology, 0, , 1-11.	1.1	2
122	Deuterium recombination coefficient on tungsten surface determined by plasma driven permeation. Fusion Engineering and Design, 2020, 160, 111853.	1.9	2
123	Evaluation of hydrogen retention behavior in tungsten exposed to hydrogen plasma in QUEST. Nuclear Materials and Energy, 2021, 26, 100856.	1.3	2
124	Image processing method for automatic measurement of number of DNA breaks. Journal of Advanced Simulation in Science and Engineering, 2021, 8, 173-193.	0.2	2
125	Investigation on effects of tritium release behavior in Li4SiO4 pebbles. Nuclear Materials and Energy, 2021, 28, 101036.	1.3	2
126	Deuterium Permeation Behavior in Fe Ion Damaged Tungsten Studied by Gas-Driven Permeation Method. Fusion Science and Technology, 2020, 76, 246-251.	1.1	2

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127	Preparation of Li2TiO3-Li4SiO4-Pb tritium breeding ceramic and its mechanical properties. Ceramics International, 2022, 48, 26742-26749.	4.8	2
128	Development of H, D, T Simultaneous TDS Measurement System and H, D, T Retention Behavior for DT Gas Exposed Tungsten Installed in LHD Plasma Campaign. Fusion Science and Technology, 2017, 71, 351-356.	1.1	1
129	Neutron irradiated tungsten bulk defect characterization by positron annihilation spectroscopy. Nuclear Materials and Energy, 2021, 26, 100936.	1.3	1
130	Deuterium Removal Efficiency in Tungsten as a Function of Hydrogen Ion Beam Fluence and Temperature. Lecture Notes in Networks and Systems, 2019, , 20-27.	0.7	1
131	Rate of double strand breaks of genome-sized DNA in tritiated water: Its dependence on tritium concentration and water temperature. Journal of Advanced Simulation in Science and Engineering, 2022, 9, 198-205.	0.2	1
132	Preheating Temperature Effect on Tritium Retention in VPS-W. Fusion Science and Technology, 2015, 67, 551-554.	1.1	0
133	Effect of C-He simultaneous implantation on deuterium retention in damaged W by Fe implantation. Fusion Engineering and Design, 2018, 137, 10-14.	1.9	0
134	Effect of Damage Introduction and He Existence on D Retention in Tungsten by High Flux D Plasma Exposure. Lecture Notes in Networks and Systems, 2019, , 89-96.	0.7	0
135	Dynamics evaluation of hydrogen isotope behavior in tungsten simulating damage distribution. Fusion Engineering and Design, 2019, 146, 2096-2099.	1.9	0
136	Radiation exposure effect on deuterium retention in SiC. Journal of Nuclear and Radiochemical Sciences, 2018, 18, 9-12.	0.7	0
137	Research frontier of tritium for fusion reactor â€“ toward the DEMO reactor (7). Atomos, 2019, 61, 64-69.	0.0	0
138	Development of Plasma Driven Permeation Measurement System for Plasma Facing Materials. Lecture Notes in Networks and Systems, 2020, , 260-268.	0.7	0