Takuji Oda

List of Publications by Year
in descending order

50 papers	593 citations	687363 13 h-index	642732 23 g-index
50 all docs	50 docs citations	50 times ranked	650 citing authors

#	Article	IF	Citations
1	Nanoscale engineering of radiation tolerant silicon carbide. Physical Chemistry Chemical Physics, 2012, 14, 13429.	2.8	98
2	Comparison of deuterium retention for ion-irradiated and neutron-irradiated tungsten. Physica Scripta, 2011, T145, 014050.	2.5	42
3	Kinetic Monte Carlo simulation on influence of vacancy on hydrogen diffusivity in tungsten. Journal of Nuclear Materials, 2015, 467, 439-447.	2.7	35
4	Evaluation of the threshold displacement energy in tungsten by molecular dynamics calculations. Journal of Nuclear Materials, 2017, 495, 277-284.	2.7	33
5	Deuterium trapping by irradiation damage in tungsten induced by different displacement processes. Fusion Engineering and Design, 2013, 88, 1749-1752.	1.9	27
6	Study of intrinsic defects in 3C-SiC using first-principles calculation with a hybrid functional. Journal of Chemical Physics, 2013, 139, 124707.	3.0	27
7	Thermodynamic model for grain boundary effects on hydrogen solubility, diffusivity and permeability in poly-crystalline tungsten. Fusion Engineering and Design, 2016, 112, 102-116.	1.9	26
8	Scanning Tunneling Microscopy and Molecular Dynamics Study of the Li₂TiO₃(001) Surface. Journal of Physical Chemistry C, 2013, 117, 5126-5131.	3.1	21
9	Validation of potential models for Li2O in classical molecular dynamics simulation. Journal of Nuclear Materials, 2007, 367-370, 263-268.	2.7	19
10	Modeling of Li diffusivity in Li2O by molecular dynamics simulation. Journal of Nuclear Materials, 2009, 386-388, 1087-1090.	2.7	19
11	Trap effect of vacancy on hydrogen diffusivity in bcc-Fe. Journal of Nuclear Materials, 2016, 469, 237-243.	2.7	16
12	Chemical states of 3d transition metal impurities in a liquid leadâ€“bismuth eutectic analyzed using first principles calculations. Physical Chemistry Chemical Physics, 2017, 19, 9945-9956.	2.8	16
13	Release behavior of hydrogen isotopes thermally sorbed in Li2TiO3 single crystal. Journal of Nuclear Materials, 2013, 442, S437-S441.	2.7	14
14	Chemical state and diffusion behavior of hydrogen isotopes in liquid lithiumâ€“lead. Chemical Physics Letters, 2009, 483, 214-218.	2.6	13
15	Atomistic simulation for strain effects on threshold displacement energies in refractory metals. Computational Materials Science, 2019, 158, 346-352.	3.0	13
16	UPS Study on the Interaction of Hydrogen Isotopes with Li₂O Surface. Fusion Science and Technology, 2003, 44, 485-489.	1.1	12
17	Dynamic observation of the behavior of 3keV irradiated into Li2O using IR absorption spectroscopy. Journal of Nuclear Materials, 2005, 346, 306-311.	2.7	12
18	Vibration analysis of Oâ€“H stretching mode in Mg(OH)2, Ca(OH)2, LiOH, and NaOH by plane-wave pseudopotential DFT calculation. Computational and Theoretical Chemistry, 2011, 963, 215-220.	2.5	12

#	Article	IF	Citations
19	Existence states of deuterium irradiated into LiAlO2. Journal of Nuclear Materials, 2008, 372, 53-58.	2.7	11
20	Behavior of Li2TiO3 under varied surface condition. Fusion Engineering and Design, 2005, 75-79, 765-768.	1.9	9
21	Optimization of a hybrid exchangeâ€“correlation functional for silicon carbides. Chemical Physics Letters, 2013, 579, 58-63.	2.6	9
22	Effects of helium implantation on hydrogen isotope retention behavior in SiC. Journal of Nuclear Materials, 2007, 363-365, 933-937.	2.7	8
23	Thermal desorption behavior of hydrogen isotopes interacting with radiation defects in Li2O. Fusion Engineering and Design, 2005, 75-79, 835-839.	1.9	7
24	Tritium and helium embrittlement of austenitic steels used in tritium storage and delivery system. Journal of Nuclear Materials, 2020, 540, 152349.	2.7	7
25	Observation of multiple Oâ€“D vibration peaks in Li2O using FT-IR. Journal of Nuclear Materials, 2004, 329-333, 1256-1259.	2.7	6
26	Monte Carlo Simulation on Permeation of Hydrogen Isotopes Through bcc Fe. Fusion Science and Technology, 2008, 54, 537-540.	1.1	6
27	Structural and chemical analysis of second-row impurities in liquid leadâ€“bismuth eutectic by first-principles molecular dynamics. Physical Chemistry Chemical Physics, 2018, 20, 30480-30491.	2.8	6
28	Molecular dynamics simulation on stability and diffusivity of hydrogen around a <111> symmetric tilt grain boundary in bcc-Fe. Fusion Engineering and Design, 2018, 131, 105-110.	1.9	6
29	Hydrogen isotope behavior in Li2O at low temperature by FT-IR. Journal of Nuclear Materials, 2004, 329-333, 1270-1273.	2.7	5
30	Reactivity of H2O gas with the surface of polycrystalline Li2O pellet. Fusion Engineering and Design, 2006, 81, 613-618.	1.9	5
31	IR observation on Oâ€“D vibration in LiNbO3 and LiTaO3 single crystal irradiated by 3ke V. Journal of Nuclear Materials, 2008, 382, 46-50.	2.7	5
32	Performance of exchange-correlation functionals in density functional theory calculations for liquid metal: A benchmark test for sodium. Journal of Chemical Physics, 2018, 148, 144501.	3.0	5
33	A comparative study on modeling of the ferromagnetic and paramagnetic states of uranium hydride using a DFT+<i>U</i> method. Physical Chemistry Chemical Physics, 2019, 21, 17628-17639.	2.8	5
34	Development of partial-charge potential for GaN. Nuclear Instruments & Methods in Physics Research B, 2006, 250, 50-53.	1.4	4
35	Modeling of diffusivity of tritium interacting with F centers in Li2O. Journal of Nuclear Materials, 2011, 417, 743-747.	2.7	4
36	Characterization and quantification of numerical errors in threshold displacement energy calculated by molecular dynamics in bcc-Fe. Computational Materials Science, 2019, 170, 109189.	3.0	4

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37	Solution enthalpy calculation for impurity in liquid metal by first-principles calculations: A benchmark test for oxygen impurity in liquid sodium. Journal of Chemical Physics, 2020, 152, 154503.	3.0	4
38	Effect of Grain Size on Hydrogen Isotope Behavior in LiNbO₃. Fusion Science and Technology, 2011, 60, 1147-1150.	1.1	3
39	First-principles calculations for the surface termination of Li2TiO3(001) surfaces. Journal of Nuclear Materials, 2013, 442, S705-S709.	2.7	3
40	First-Principles Calculations of the Diffusivity of Interstitial Helium in Alpha-U Considering Anisotropy, Isotope Effects, and Quantum Effects. Journal of Physical Chemistry C, 2021, 125, 21101-21111.	3.1	3
41	Correction methods for first-principles calculations of the solution enthalpy of gases and compounds in liquid metals. Physical Chemistry Chemical Physics, 2022, 24, 757-770.	2.8	3
42	Experiment to Recover Tritium from Li-Pb Blanket and Understanding Chemistry of the Li17Pb83â€“H System. Fusion Science and Technology, 2017, , 1-8.	1.1	2
43	Comparison and validation of the lattice thermal conductivity formulas used in equilibrium molecular dynamics simulations for binary systems. Computational Materials Science, 2020, 178, 109615.	3.0	2
44	Recovery of Tritium Dissolved in Sodium at the Steam Generator of Fast Breeder Reactor. Fusion Science and Technology, 2008, 54, 337-340.	1.1	1
45	Release behavior of hydrogen isotopes thermally absorbed in lithium niobate. Fusion Engineering and Design, 2010, 85, 1772-1776.	1.9	1
46	Development of Tritium Recovery by Flowing O2+Ar Gases at Steam Generator in Fast Breeder Reactor. Fusion Science and Technology, 2011, 60, 1423-1426.	1.1	1
47	Influence of surface morphology and surface area on release behavior of hydrogen isotopes in LiNbO 3. Fusion Engineering and Design, 2014, 89, 2797-2805.	1.9	1
48	Two-body potential model based on cosine series expansion for ionic materials. Computational Materials Science, 2016, 111, 54-63.	3.0	1
49	Chemical origin of differences in steel corrosion behaviors of s-electron and p-electron liquid metals by first-principles calculation. Physical Chemistry Chemical Physics, 2019, 21, 25916-25924.	2.8	1
50	Correlation between surface hydroxyl behavior and surface oxidation state of F82H. Journal of Nuclear Materials, 2011, 417, 1139-1142.	2.7	0