Yves Ferro

List of Publications by Year
in descending order

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Version: 2024-02-01

50 papers	1,631 citations	304368 22 h-index	301761 39 g-index
50 all docs	50 docs citations	50 times ranked	1658 citing authors

#	Article	IF	Citations
1	Modelling tritium adsorption and desorption from tungsten dust particles with a surface kinetic model. Nuclear Fusion, 2021, 61, 086030.	1.6	12
2	Predictive Atomistic Model for Hydrogen Adsorption on Metal Surfaces: Comparison with Low-Energy Ion Beam Analysis on Tungsten. Journal of Physical Chemistry C, 2021, 125, 16086-16096.	1.5	8
3	D retention and material defects probed using Raman microscopy in JET limiter samples and beryllium-based synthesized samples. Physica Scripta, 2021, 96, 124031.	1.2	2
4	Modelling of hydrogen isotopes trapping, diffusion and permeation in divertor monoblocks under ITER-like conditions. Nuclear Fusion, 2021, 61, 126003.	1.6	9
5	Kinetic model for hydrogen absorption in tungsten with coverage dependent surface mechanisms. Nuclear Fusion, 2020, 60, 106011.	1.6	11
6	A density functional theory based thermodynamic model of hydrogen coverage on the W(110) surface. Physica Scripta, 2020, T171, 014025.	1.2	6
7	Diffusivity of hydrogen and properties of point defects in beryllium investigated by DFT. Journal of Nuclear Materials, 2019, 524, 323-329.	1.3	11
8	Surface coverage dependent mechanisms for the absorption and desorption of hydrogen from the W(1â€‰1â€‰0) and W(1â€‰0â€‰0) surfaces: a density functional theory investigation. Nuclear Fusion, 2019, 59, 106022.	1.6	25
9	Analytical bond order potential for simulations of BeO 1D and 2D nanostructures and plasma-surface interactions. Journal of Physics Condensed Matter, 2018, 30, 135001.	0.7	15
10	Saturation of tungsten surfaces with hydrogen: A density functional theory study complemented by low energy ion scattering and direct recoil spectroscopy data. Acta Materialia, 2018, 145, 388-398.	3.8	36
11	Identification of BeO and BeOxDy in melted zones of the JET Be limiter tiles: Raman study using comparison with laboratory samples. Nuclear Materials and Energy, 2018, 17, 295-301.	0.6	20
12	Reaction-diffusion modeling of hydrogen transport and surface effects in application to single-crystalline Be. Nuclear Instruments & Methods in Physics Research B, 2018, 430, 23-30.	0.6	27
13	Hydrogen in beryllium oxide investigated by DFT: on the relative stability of charged-state atomic versus molecular hydrogen. Journal of Physics Condensed Matter, 2018, 30, 305201.	0.7	8
14	Hydrogen supersaturated layers in H/D plasma-loaded tungsten: A global model based on thermodynamics, kinetics and density functional theory data. Physical Review Materials, 2018, 2, .	0.9	22
15	Preparing the future post-mortem analysis of beryllium-based JET and ITER samples by multi-wavelengths Raman spectroscopy on implanted Be, and co-deposited Be. Nuclear Fusion, 2017, 57, 076035.	1.6	10
16	Contribution to a better evaluation of the dust speciation in case of an accident in ITER. Fusion Engineering and Design, 2017, 124, 1171-1176.	1.0	4
17	Theoretical investigation on the point defect formation energies in beryllium and comparison with experiments. Nuclear Materials and Energy, 2017, 12, 453-457.	0.6	14
18	Plasmaâ€“wall interaction studies within the EUROfusion consortium: progress on plasma-facing components development and qualification. Nuclear Fusion, 2017, 57, 116041.	1.6	75

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19	Study of hydrogen isotopes behavior in tungsten by a multi trapping macroscopic rate equation model. Physica Scripta, 2016, T167, 014011.	1.2	27
20	Hydrogen diffusion and vacancies formation in tungsten: Density Functional Theory calculations and statistical models. Acta Materialia, 2015, 94, 307-318.	3.8	174
21	First-Principles Study of hydrogen retention and diffusion in beryllium oxide. Solid State Ionics, 2015, 272, 91-100.	1.3	20
22	Hydrogen retention in beryllium: concentration effect and nanocrystalline growth. Journal of Physics Condensed Matter, 2015, 27, 475401.	0.7	15
23	The interaction of beryllium with benzene and graphene: a comparative investigation based on DFT, MP2, CCSD(T), CAS-SCF and CAS-PT2. Physical Chemistry Chemical Physics, 2014, 16, 1957-1966.	1.3	11
24	Hydrogen retention and diffusion in tungsten beryllide. Journal of Physics Condensed Matter, 2014, 26, 315012.	0.7	11
25	Absorption and diffusion of beryllium in graphite, beryllium carbide formation investigated by density functional theory. Journal of Applied Physics, 2013, 113, 213514.	1.1	16
26	Adsorption of beryllium atoms and clusters both on graphene and in a bilayer of graphite investigated by DFT. Journal of Physics Condensed Matter, 2013, 25, 015002.	0.7	13
27	Isotopic effects in the sticking of H and D atoms on the (0 0 0 1) graphite surface. Chemical Physics Letters, 2009, 477, 225-229.	1.2	10
28	Evidence of hydrogenated hexamers on graphite. Chemical Physics Letters, 2009, 478, 42-44.	1.2	14
29	Stability and magnetism of hydrogen dimers on graphene. Physical Review B, 2008, 78, .	1.1	103
30	Model for thermal desorption of hydrogen atoms from a graphite surface based on kinetic Monte Carlo simulations. Physical Review B, 2008, 77, .	1.1	22
31	Interpretation of STM images of graphite with an atomic vacancy via density-functional calculations of electronic structure. Physical Review B, 2007, 75, .	1.1	21
32	Experimental and Theoretical UV Characterizations of Acetylacetone and Its Isomers. Journal of Physical Chemistry A, 2006, 110, 3920-3926.	1.1	51
33	Dissociative adsorption of small molecules at vacancies on the graphite (0001) surface. Carbon, 2006, 44, 3320-3327.	5.4	107
34	Hydrogenation and dehydrogenation of graphite (0001) surface: a density functional theory study. Physica Scripta, 2006, T124, 91-95.	1.2	30
35	Hydrogen adsorption on graphite (0001) surface: A combined spectroscopyâ€“density-functional-theory study. Journal of Chemical Physics, 2005, 123, 124701.	1.2	55
36	Electron solvation by polar molecules:â€,The interaction of Na atoms with solid methanol films studied with MIES and density functional theory calculations. Journal of Chemical Physics, 2004, 120, 8692-8697.	1.2	12

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37	Electron solvation by highly polar molecules: Density functional theory study of atomic sodium interaction with water, ammonia, and methanol. Journal of Chemical Physics, 2004, 120, 8683-8691.	1.2	27
38	Electron delocalization by polar molecules: Interaction of Na atoms with solid ammonia films studied with MIES and density functional theory. Journal of Chemical Physics, 2004, 121, 3717-3721.	1.2	2
39	Quantum study of hydrogenâ€“oxygenâ€“graphite interactions. Carbon, 2004, 42, 3189-3198.	5.4	44
40	Electronic transitions and resonance electron scattering measured by electron energy loss spectroscopy of lead phthalocyanine thin film. Thin Solid Films, 2004, 466, 259-264.	0.8	15
41	Theoretical study of oxygen adsorption on boron-doped graphite. Surface Science, 2004, 559, 158-168.	0.8	28
42	Adsorption, diffusion, and recombination of hydrogen on pure and boron-doped graphite surfaces. Journal of Chemical Physics, 2004, 120, 11882-11888.	1.2	58
43	Density functional theory investigation of the diffusion and recombination of H on a graphite surface. Chemical Physics Letters, 2003, 368, 609-615.	1.2	122
44	UV and IR photoisomerizations of an intramolecularly H-bonded molecule: acetylacetone trapped in nitrogen matrix. Chemical Physics Letters, 2003, 370, 118-125.	1.2	21
45	Density functional study of chemical erosion mechanisms in carbon and boron-doped carbon as plasma facing material in tokamaks. Journal of Nuclear Materials, 2003, 321, 294-304.	1.3	14
46	Sodium hydroxide formation in water clusters: The role of hydrated electrons and the influence of electric field. Journal of Chemical Physics, 2003, 118, 10461-10469.	1.2	30
47	Self-assembled molecular chains formed by selective adsorption of leadâ€“phthalocyanine on InSb(100)-(4Ã—2)/c(8Ã—2). Applied Physics Letters, 2003, 82, 2518-2520.	1.5	26
48	Density functional theory investigation of H adsorption on the basal plane of boron-doped graphite. Journal of Chemical Physics, 2003, 118, 5650-5657.	1.2	49
49	Density functional theory investigation of H adsorption and H2 recombination on the basal plane and in the bulk of graphite: Connection between slab and cluster model. Journal of Chemical Physics, 2002, 116, 8124-8131.	1.2	120
50	Adsorption of NH3 on MgO(100): a comparative study of ab initio and semi-classical calculations. Surface Science, 1995, 325, 139-150.	0.8	48