Matti Alatalo

List of Publications by Year in descending order

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64	2,303	304743 22	214800 47
papers	citations	h-index	g-index

64	64	64	2124
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Adsorption of CO2 on the Ï‰-Fe (0001) surface: insights from density functional theory. RSC Advances, 2021, 11, 6825-6830.	3.6	0
2	Synergistic effect of Niâ€“Agâ€“rutile TiO₂ ternary nanocomposite for efficient visible-light-driven photocatalytic activity. RSC Advances, 2020, 10, 36930-36940.	3.6	6
3	Ab initio study of hydrogen sensing in Pd and Pt functionalized GaN [0â€¯0â€¯0â€¯1] nanowires. Applied Surface Science, 2020, 512, 146019.	6.1	7
4	Density functional theory study of Ï‰ phase in steel with varied alloying elements. International Journal of Quantum Chemistry, 2020, 120, e26223.	2.0	1
5	Oxidation states of binary oxides from data analytics of the electronic structure. Computational Materials Science, 2019, 161, 403-414.	3.0	21
6	Surface Morphology and Sulfur Reduction Pathways of MoS₂ Mo Edges of the Monolayer and (100) and (103) Surfaces by Molecular Hydrogen: A DFT Study. ACS Omega, 2019, 4, 4023-4028.	3.5	7
7	Metallic Contact between MoS₂ and Ni via Au Nanoglue. Small, 2018, 14, e1704526.	10.0	32
8	Quantification of Bonded Ni Atoms for M-M0S2 Metallic Contact through X-ray Photoemission Electron Microscopy. Microscopy and Microanalysis, 2018, 24, 458-459.	0.4	1
9	Metal-Semiconductor Contacts: Metallic Contact between MoS2 and Ni via Au Nanoglue (Small) Tj ETQq1 1 0.784314 rgBT /Overlock	10.0	0
10	Deciphering complex features in STM images of O adatoms on Ag(110). Physical Review B, 2018, 98, .	3.2	6
11	Adatom Extraction from Pristine Metal Terraces by Dissociative Oxygen Adsorption: Combined STM and Density Functional Theory Investigation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">O</mml:mi><mml:mo>/</mml:mo><mml:mi>Ag</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mn>110</mml:mn><mml:mo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 322 Td (stretchy="fa	7.8	11
12	LEED â€“ IV and DFT study of the co-adsorption of chlorine and water on Cu(100). Surface Science, 2017, 657, 51-57.	1.9	4
13	A DFT study of the effect of SO₄ groups on the properties of TiO₂ nanoparticles. Physical Chemistry Chemical Physics, 2016, 18, 33068-33076.	2.8	7
14	Adsorption, diffusion, and vibration of oxygen on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Ag</mml:mi><mml:mo>(</mml:mo><mml:mn>110</mml:mn></mml:mrow></mml:math>: Physical Review B, 2015, 92, .	3.2	21
15	Unoccupied titanium 3dstates due to subcluster formation in stoichiometric TiO₂nanoparticles. International Journal of Quantum Chemistry, 2015, 115, 1175-1180.	2.0	4
16	A DFT study of the effect of OH groups on the optical, electronic, and structural properties of TiO₂ nanoparticles. Physical Chemistry Chemical Physics, 2015, 17, 5321-5327.	2.8	5
17	Modeling TiO2×³s refractive index function from bulk to nanoparticles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 167, 105-118.	2.3	17
18	Light harvesting properties of ferrocenyl based sensitizer with sulfur rich dithiocarabamates and xanthate as anchoring group. Solar Energy, 2014, 108, 560-569.	6.1	31

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19	Synthesis, characterization and light harvesting properties of nickel(II) diimine dithiolate complexes. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2013, 115, 106-110.	3.9	15
20	Ab initio study of the surface properties of austenitic stainless steel alloys. Surface Science, 2013, 609, 190-194.	1.9	13
21	Refractive Index Functions of TiO₂ Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 3503-3512.	3.1	22
22	The contribution made by lattice vacancies to the Wigner effect in radiation-damaged graphite. Journal of Physics Condensed Matter, 2013, 25, 135403.	1.8	37
23	Size and Shape Dependence of the Electronic and Spectral Properties in TiO₂ Nanoparticles. Journal of Physical Chemistry C, 2011, 115, 8484-8493.	3.1	71
24	Sulphur adsorption on Au{110}: DFT and LEED study. Surface Science, 2010, 604, 797-803.	1.9	8
25	High temperature oxidation of Feâ€“Al and Feâ€“Crâ€“Al alloys: The role of Cr as a chemically active element. Corrosion Science, 2010, 52, 3394-3404.	6.6	154
26	Adsorption dynamics of O2 on Cu(1 0 0): The role of vacancies, steps and adatims in dissociative chemisorption of O2. Chemical Physics Letters, 2008, 456, 211-214.	2.6	16
27	The role of preadsorbed sulphur and oxygen in O2 dissociation on Pd(100). Surface Science, 2008, 602, 3660-3666.	1.9	3
28	Surface core-level shift of Pd at the AgcPd1âˆ’c(111) surface: Nonlinear subsurface effects. Surface Science, 2007, 601, 5419-5423.	1.9	4
29	O2 dissociation on Pd(211) and Cu(211) surfaces. Surface Science, 2007, 601, 3774-3777.	1.9	12
30	Adsorption dynamics of O2 on Cu(100). Surface Science, 2006, 600, 1574-1578.	1.9	22
31	Oxygen induced segregation of copper to Ag/Cu(100) surface. Surface Science, 2006, 600, 4103-4107.	1.9	9
32	On-surface and sub-surface oxygen on ideal and reconstructed Cu(100). Surface Science, 2005, 584, 62-69.	1.9	36
33	Adsorption of atomic and molecular oxygen on Cu(100). Catalysis Today, 2005, 100, 403-406.	4.4	30
34	Site selectivity in chemisorption of C on Pd(211). Physical Review B, 2004, 70, .	3.2	16
35	Reactivity of Pd doped Ag surfaces. Vacuum, 2004, 74, 169-172.	3.5	1
36	Characteristics of S adsorption on Pd vicinal surfaces. Surface Science, 2003, 532-535, 154-159.	1.9	5

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37	Structure and reactivity of Pd doped Ag surfaces. Surface Science, 2003, 529, 403-409.	1.9	8
38	Vacancy Defects as Compensating Centers in Mg-Doped GaN. Physical Review Letters, 2003, 90, 137402.	7.8	117
39	Ab initiostudies of stepped Pd surfaces with and without S. Physical Review B, 2003, 67, .	3.2	22
40	Catalytic oxidation of CO on Pd(111). Surface Science, 2002, 516, 247-253.	1.9	38
41	Calculation of the Doppler broadening of the electron-positron annihilation radiation in defect-free bulk materials. Physical Review B, 2000, 61, 10092-10099.	3.2	65
42	From x-ray-absorption near-edge structures to thed-hole population in Pd-Ag alloys. Physical Review B, 1999, 60, 4659-4664.	3.2	15
43	Truncated pseudopotentials for alloy calculations. Physical Review B, 1999, 60, 7680-7683.	3.2	7
44	Energetics and diffusion paths of gallium and arsenic adatoms on flat and stepped GaAs(001) surfaces. Surface Science, 1999, 425, 31-47.	1.9	32
45	Effect of lattice structure on the positron annihilation with inner shell electrons. Journal of Physics and Chemistry of Solids, 1998, 59, 55-59.	4.0	18
46	Stability of Zr-Al alloys. Physical Review B, 1998, 57, R2009-R2012.	3.2	69
47	Ternary transition-metal aluminide alloy formation: TheBiF3structure. Physical Review B, 1998, 57, 12134-12139.	3.2	28
48	The momentum distribution of annihilating positron-electron pairs in aluminum. Applied Surface Science, 1997, 116, 278-282.	6.1	13
49	Correlation effects for positron annihilation with core and semicore electrons. Applied Surface Science, 1997, 116, 283-286.	6.1	5
50	Theoretical and experimental study of positron annihilation with core electrons in solids. Physical Review B, 1996, 54, 2397-2409.	3.2	242
51	Increased Elemental Specificity of Positron Annihilation Spectra. Physical Review Letters, 1996, 77, 2097-2100.	7.8	522
52	Metastable defect complexes in GaAs. Physical Review B, 1996, 54, 7909-7916.	3.2	33
53	Correlations in coupled electron and hole layers of finite thickness. Physical Review B, 1995, 52, 7845-7848.	3.2	20
54	Identification of vacancy defects in compound semiconductors by core-electron annihilation: Application to InP. Physical Review B, 1995, 51, 4176-4185.	3.2	200

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55	Variational calculations for semiconductor superlattices and multilayer systems. Physical Review B, 1994, 49, 8277-8289.	3.2	9
56	First principles study of vacancies in Si. Computational Materials Science, 1993, 1, 151-160.	3.0	15
57	Positron annihilation at paramagnetic defects in semiconductors. Journal of Physics Condensed Matter, 1993, 5, L307-L314.	1.8	13
58	Phosphorus vacancy in InP: A negative-Ucenter. Physical Review B, 1993, 47, 6381-6384.	3.2	29
59	Crystals from metallic clusters: A first-principles calculation. Physical Review B, 1993, 48, 1981-1983.	3.2	39
60	Collective excitations, pressure, and compressibility in multilayer systems. Physical Review B, 1993, 48, 1665-1668.	3.2	4
61	First-principles study of He in Si. Physical Review B, 1992, 46, 12806-12809.	3.2	52
62	Charge-state-dependent relaxation and positron states at vacancy defects in GaAs. Journal of Physics Condensed Matter, 1991, 3, 7217-7224.	1.8	23
63	Simple method for collective excitations in multicomponent mixtures of quantum fluids. Physical Review B, 1990, 42, 10727-10729.	3.2	10
64	Modeling of Steels and Steel Surfaces Using Quantum Mechanical First Principles Methods. Materials Science Forum, 0, 762, 445-450.	0.3	0