

Adam Kiejna

List of Publications by Year in descending order

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98
papers

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citations

172386

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102
all docs

102
docs citations

102
times ranked

2282
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural, electronic, and magnetic properties of bcc iron surfaces. Surface Science, 2007, 601, 123-133.	0.8	197
2	Theoretical study of oxygen adsorption at the Fe(110) and (100) surfaces. Surface Science, 2005, 590, 88-100.	0.8	138
3	First-principles study of surface and subsurface O structures at Al(111). Physical Review B, 2001, 63, .	1.1	93
4	Bulk and surface properties of hexagonal-close-packed Be and Mg. Journal of Physics Condensed Matter, 2001, 13, 10767-10776.	0.7	89
5	Comparison of the full-potential and frozen-core approximation approaches to density-functional calculations of surfaces. Physical Review B, 2006, 73, .	1.1	80
6	Cohesive and magnetic properties of grain boundaries in bcc Fe with Cr additions. Physical Review B, 2010, 81, .	1.1	79
7	Surface properties of simple metals in a structureless pseudopotential model. Physical Review B, 1993, 47, 7361-7364.	1.1	70
8	Calculation of surface properties of bcc iron. Vacuum, 2004, 74, 179-183.	1.6	69
9	The energetics and structure of rutile TiO ₂ (110). Journal of Physics Condensed Matter, 2006, 18, 4207-4217.	0.7	69
10	Surface properties of the clean and Au/Pd covered Fe ₃ O ₄ (111): DFT and DFT+U investigation. Physical Review B, 2013, 87, 045411.	1.1	68
11	Work function of metals: Relation between theory and experiment. Progress in Surface Science, 1981, 11, 293-338.	3.8	64
12	Effect of impurities on grain boundary cohesion in bcc iron. Computational Materials Science, 2008, 43, 736-743.	1.4	62
13	Effect of impurities on structural, cohesive and magnetic properties of grain boundaries in $\hat{I}\pm$ -Fe. Modelling and Simulation in Materials Science and Engineering, 2011, 19, 025001.	0.8	56
14	Quantum-size effect in thin Al(110) slabs. Surface Science, 1999, 432, 54-60.	0.8	52
15	Surface properties of clean and Au or Pd covered hematite ($\hat{I}\pm$ -Fe ₂ O ₃)(0001). Journal of Physics Condensed Matter, 2012, 24, 095003.	0.7	50
16	Mixed Termination of Hematite ($\hat{I}\pm$ -Fe ₂ O ₃)(0001) Surface. Journal of Physical Chemistry C, 2013, 117, 24339-24344.	1.5	48
17	Segregation of Cr impurities at bcc iron surfaces: First-principles calculations. Physical Review B, 2008, 78, .	1.1	44
18	The role of charge transfer in the oxidation state change of Ce atoms in the TM ₁₃ â€œCeO ₂ (111) systems (TM = Pd, Ag, Pt, Au): a DFT + U investigation. Physical Chemistry Chemical Physics, 2015, 17, 13520-13530.	1.3	41

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19	Simple theory of elastically deformed metals: Surface energy, stress, and work function. Physical Review B, 2000, 62, 10445-10450.	1.1	40
20	The temperature dependence of metal work functions. Journal of Physics F: Metal Physics, 1979, 9, 1361-1366.	1.6	39
21	Oxygen adsorption on Fe(110) surface revisited. Surface Science, 2015, 637-638, 35-41.	0.8	39
22	Adsorption of Rh, Pd, Ir, and Pt on the Au(111) and Cu(111) Surfaces: A Density Functional Theory Investigation. Journal of Physical Chemistry C, 2014, 118, 19051-19061.	1.5	38
23	On the temperature dependence of the work function. Surface Science, 1986, 178, 349-358.	0.8	37
24	Stability of oxygen adsorption sites and ultrathin aluminum oxide films on Al(). Surface Science, 2002, 504, 1-10.	0.8	36
25	Comparison of the Performance of van der Waals Dispersion Functionals in the Description of Water and Ethanol on Transition Metal Surfaces. Journal of Physical Chemistry C, 2018, 122, 1577-1588.	1.5	36
26	Dissociative adsorption of O_2 molecules on O-precovered Fe(110) and Fe(100): Density-functional calculations. Physical Review B, 2008, 77, .	1.1	34
27	O adsorption and incipient oxidation of the Mg(0001) surface. Physical Review B, 2004, 69, .	1.1	33
28	Energetics of oxygen vacancies at rutile TiO ₂ (110) surface. Solid State Communications, 2007, 144, 324-328.	0.9	32
29	First-principles study of Au nanostructures on rutile TiO ₂ surface. Physical Review B, 2009, 79, .	1.1	32
30	First-principles calculation of Li adatom structures on the Mo(112) surface. Physical Review B, 2002, 66, .	1.1	30
31	Adsorption of water and ethanol on noble and transition-metal substrates: a density functional investigation within van der Waals corrections. Physical Chemistry Chemical Physics, 2016, 18, 29526-29536.	1.3	30
32	Surface atomic structure and energetics of tantalum. Surface Science, 2005, 598, 276-284.	0.8	29
33	Density functional study of surface properties of chromium. Surface Science, 2008, 602, 517-524.	0.8	27
34	Image potential matched self-consistently to an effective potential for simple-metal surfaces. Physical Review B, 1991, 43, 14695-14698.	1.1	26
35	Density-functional study of oxygen adsorption on Mo(112). Journal of Chemical Physics, 2005, 122, 044712.	1.2	26
36	Stabilized jellium simple model for simple-metal surfaces. Progress in Surface Science, 1999, 61, 85-125.	3.8	25

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37	Oxygen adsorption on the clean and O-precovered Fe (110) and (100) surfaces. Journal of Physics Condensed Matter, 2007, 19, 096011.	0.7	23
38	Vacancy formation and O adsorption at the Al(111) surface. Physical Review B, 2003, 68, .	1.1	22
39	Energetics of Sradatom interactions on the Mo(112) surface. Physical Review B, 2004, 69, .	1.1	22
40	One-dimensional Au on TiO ₂ . Journal of Physics Condensed Matter, 2007, 19, 082202.	0.7	22
41	On the temperature dependence of the ionization potential of self-compressed solid- and liquid-metallic clusters. Journal of Physics Condensed Matter, 1996, 8, 4245-4257.	0.7	21
42	Surface modification of oxides by electron-stimulated desorption for growth-mode control of metal films: Experiment and density-functional calculations. Physical Review B, 2007, 76, .	1.1	21
43	Nanoscale Patterns on Polar Oxide Surfaces. Chemistry of Materials, 2016, 28, 7433-7443.	3.2	20
44	Alkali metals adsorption on the Mg(001) surface. Surface Science, 2004, 548, 22-28.	0.8	19
45	Surface properties of alkali-metal alloys. Journal of Physics C: Solid State Physics, 1983, 16, 6883-6896.	1.5	18
46	Mg(0001) surface oxidation: A two-dimensional oxide phase. Physical Review B, 2004, 69, .	1.1	18
47	Trends in atom/molecule-surface van der Waals interactions. Surface Science, 1997, 383, 88-94.	0.8	16
48	Water adsorption on the stoichiometric and defected Fe(110) surfaces. Surface Science, 2018, 668, 144-149.	0.8	15
49	A note on face-dependent surface properties of simple metals. Journal of Physics C: Solid State Physics, 1982, 15, 4717-4725.	1.5	14
50	Fe adsorption on hematite ($\hat{\alpha}$ -Fe ₂ O ₃) (0001) and magnetite (Fe ₃ O ₄) (111) surfaces. Journal of Chemical Physics, 2014, 141, 134707.	1.2	14
51	Adsorption of gold subnano-structures on a magnetite(111) surface and their interaction with CO. Physical Chemistry Chemical Physics, 2016, 18, 18169-18179.	1.3	14
52	Surface stress of stabilized jellium. Solid State Communications, 1993, 88, 143-147.	0.9	12
53	Response of a stabilized-jellium surface to a static electric field. Surface Science, 1995, 331-333, 1167-1171.	0.8	12
54	Multilayer relaxations at the (0001) surface of Be and Mg. Solid State Communications, 2000, 116, 17-20.	0.9	12

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55	Effect of iron additions on intergranular cohesion in chromium. Journal of Physics Condensed Matter, 2009, 21, 485002.	0.7	12
56	Comment on the surface segregation in alkali-metal alloys. Journal of Physics Condensed Matter, 1990, 2, 6331-6333.	0.7	11
57	Sum rules for the planar surface of stabilized jellium. Physical Review B, 1993, 48, 4811-4815.	1.1	11
58	Density functional study of alkali metals adsorption on the MgO(111) surface. Surface Science, 2003, 538, 240-248.	0.8	11
59	First-principles study of the adsorption of MgO molecules on a clean Fe(001) surface. Physical Review B, 2015, 92, .	1.1	11
60	Comparative study of Ag, Au, Pd, and Pt adsorption on Mo and Ta(112) surfaces. Physical Review B, 2006, 74, .	1.1	10
61	Structure and energetics changes during hydrogenation of 4H-SiC{0001} surfaces: a DFT study. Journal of Physics Condensed Matter, 2012, 24, 385801.	0.7	10
62	CO adsorption on small Au _n (n = 1-4) structures supported on hematite. I. Adsorption on iron terminated Fe ₂ O ₃ (0001) surface. Journal of Chemical Physics, 2016, 144, 044704.	1.2	10
63	The role of the cationic Pt sites in the adsorption properties of water and ethanol on the Pt ₄ /Pt(111) and Pt ₄ /CeO ₂ (111) substrates: A density functional theory investigation. Journal of Chemical Physics, 2016, 145, 124709.	1.2	10
64	Effect of substrate relaxation on adsorption energies: The example of Fe ₂ O ₃ (0001) and Fe ₃ O ₄ (111). Surface Science, 2019, 679, 225-229.	0.8	10
65	Simple Non-Local Calculation of Jellium Metal Surface Properties. Physica Status Solidi (B): Basic Research, 1981, 105, 147-153.	0.7	9
66	CO adsorption on small Au _n (n = 1-4) structures supported on hematite. II. Adsorption on the O-rich termination of Fe ₂ O ₃ (0001) surface. Journal of Chemical Physics, 2016, 144, 044705.	1.2	9
67	On the Structure of Ultrathin FeO Films on Ag(111). Nanomaterials, 2018, 8, 828.	1.9	9
68	Energetics of finite metallic nanowires. Surface Science, 2001, 472, 172-178.	0.8	8
69	Ab initio simulation of copper and silver adsorption on the MgO(111) surface. Surface Science, 2005, 589, 114-119.	0.8	8
70	Grain boundary segregation in low Cr Fe-Cr alloys: The effect of radiation induced vacancies studied by metropolis Monte Carlo simulations. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1679-1683.	0.6	8
71	DFT study of stepped 4H-SiC{0001} surfaces. Applied Surface Science, 2017, 420, 129-135.	3.1	8
72	Work function changes on single crystal planes. Solid State Communications, 1979, 31, 857-859.	0.9	7

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73	Stability of gold nanostructures on rutile TiO ₂ (110) surface. Surface Science, 2011, 605, 668-674.	0.8	7
74	Oxygen Adsorption on the Fe(110) Surface: The Old System â€œ New Structures. Journal of Physical Chemistry C, 2016, 120, 3807-3813.	1.5	7
75	Incipient adsorption of water and hydroxyl on hematite (0001) surface. Journal of Physics Communications, 2019, 3, 035023.	0.5	7
76	Image plane position at a charged surface of stabilized jellium. Surface Science, 1993, 287-288, 618-621.	0.8	6
77	FACE-DEPENDENT WORK FUNCTION DERIVED FROM THE LOCAL POLARIZATION OF PLASMA AND THE IMAGE FORCE ACTION NEAR A METAL SURFACE. Modern Physics Letters B, 1999, 13, 1081-1085.	1.0	6
78	Low-coverage K adsorption on Mg(0001) surface. Surface Science, 2004, 566-568, 983-988.	0.8	6
79	The role of van der Waals interaction in the tilted binding of amine molecules to the Au(111) surface. Journal of Physics Condensed Matter, 2012, 24, 222001.	0.7	6
80	Towards understanding MgO/Fe interface formation: Adsorption of O and Mg atoms on an Fe(001) surface. Physical Review B, 2017, 96, .	1.1	6
81	The effect of strong electric field on lattice relaxation at metal surface. Solid State Communications, 1984, 50, 349-352.	0.9	5
82	Surface plasmon dispersion in simple metals: a sum rule approach. Surface Science, 1994, 320, 355-360.	0.8	5
83	On adhesive energies at bimetallic interfaces. Surface Science, 1985, 159, L411-L415.	0.8	4
84	Work function of K and Rb submonolayers adsorbed on Al(111) and Mg(0001). Vacuum, 1990, 41, 580-582.	1.6	4
85	Electron-positron annihilation characteristics at a metal surface: simple metals. Journal of Physics Condensed Matter, 1993, 5, 8195-8210.	0.7	4
86	Stress sum rules for the flat surface of stabilized jellium. Physical Review B, 1997, 56, 1095-1098.	1.1	4
87	Adhesive Energies at Potassium Alloys Interfaces. Physica Scripta, 1987, 35, 738-741.	1.2	3
88	Simulation of STM Images of Hematite \pm -Fe ₂ O ₃ (0001) Surfaces: Dependence on Distance and Bias. Journal of Physical Chemistry C, 2021, 125, 26711-26717.	1.5	3
89	Ostwald Ripening in an Oxideâ€œMetal System. Advanced Materials Interfaces, 0, , 2200222.	1.9	3
90	Adhesion between simple metal surfaces. Journal of Physics Condensed Matter, 1998, 10, 6621-6628.	0.7	2

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91	Monte Carlo study of oxidation of the 3C-SiC(001) surface. Applied Surface Science, 2008, 254, 4352-4356.	3.1	2
92	Field emission from a metal covered with a semiconducting layer: A model calculation. Applied Physics A: Solids and Surfaces, 1990, 50, 331-338.	1.4	1
93	Effect of the ionic potential on the potential barrier for the metal-vacuum-metal tunneling electrons. Physica Status Solidi A, 1992, 131, 117-121.	1.7	1
94	Potential barrier for the metal-vacuum-metal tunneling electrons. Ultramicroscopy, 1992, 42-44, 231-235.	0.8	1
95	Polarization of a metal surface by an external proton. Physical Review B, 1998, 58, 1633-1642.	1.1	1
96	Sum-rule approach in the theory of charged self-compressed dielectric droplets. Physica A: Statistical Mechanics and Its Applications, 2001, 293, 59-70.	1.2	1
97	Gold nanostructures on iron oxide surfaces and their interaction with CO. Journal of Physics Condensed Matter, 2020, 32, 433001.	0.7	1
98	Water Adsorption on bcc Iron Surfaces. , 2018, , 298-303.		0