Adam Kiejna

List of Publications by Year
in descending order

98 papers	2,552 citations	172207 29 h-index	214527 47 g-index
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 TiO2(110). Journal of Physics Condensed Matter, 2006, 18, 4207-4217.	0.7	69
10	Surface properties of the clean and Au/Pd covered Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>(111): DFT andDFT+<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>U</mml:mi></mml:math>	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 Î±-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 (Î±-Fe₂O₃) (0001). Journal of Physics Condensed Matter, 2012, 24, 095003.	0.7	50
16	Mixed Termination of Hematite (Î±-Fe₂O₃)(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 TM₁₃â€“CeO₂(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<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>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 TiO2(110) surface. Solid State Communications, 2007, 144, 324-328.	0.9	32
29	First-principles study of Au nanostructures on rutile<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>TiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></ 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 jelliumâ€"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 ofSradatom interactions on theMo(112)surface. Physical Review B, 2004, 69, .	1.1	22
40	One-dimensional Au on TiO2. 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() 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 (Î±-Fe2O3) (0001) and magnetite (Fe3O4) (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 andTa(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 Aun (n = 1â€“4) structures supported on hematite. I. Adsorption on iron terminated Î±-Fe2O3 (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 Pt4/Pt(111) and Pt4/CeO2(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 Î±-Fe2O3(0001) and Fe3O4(111). Surface Science, 2019, 679, 225-229.	0.8	10
65	Simple Nonâ€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 Aun (n = 1â€“4) structures supported on hematite. II. Adsorption on the O-rich termination of Î±-Fe2O3(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 Feâ€“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 TiO2(110) surface. Surface Science, 2011, 605, 668-674.	0.8	7
74	Oxygen Adsorption on the Fe(110) Surface: The Old System â€“ 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 Î±-Fe₂O₃(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€onâ€Metal 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 3Câ€“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 metalâ€“vacuumâ€“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