

F Aguilera-Granja

List of Publications by Year in descending order

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117
papers

2,122
citations

257450

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119
all docs

119
docs citations

119
times ranked

1485
citing authors

#	ARTICLE	IF	CITATIONS
1	DIRECT ENUMERATION OF THE GEOMETRICAL CHARACTERISTICS OF CLUSTERS. Scripta Materialia, 1997, 8, 269-287.	0.5	128
2	Structure and magnetism of cobalt clusters. Physical Review B, 2003, 67, .	3.2	128
3	Ising model of phase transitions in ultrathin films. Solid State Communications, 1990, 74, 155-158.	1.9	96
4	Structure and magnetism of small rhodium clusters. Physical Review B, 2002, 66, .	3.2	96
5	Magnetic moments of Ni clusters. Physical Review B, 1998, 57, 12469-12475.	3.2	73
6	First-order phase transitions in the Ising square lattice with first- and second-neighbor interactions. Physical Review B, 1993, 48, 3519-3522.	3.2	62
7	Structural and magnetic properties of X12Y (X, Y=Fe, Co, Ni, Ru, Rh, Pd, and Pt) nanoalloys. Journal of Chemical Physics, 2010, 132, .	3.0	61
8	Comparative <i>ab initio</i> study of the structural, electronic, and magnetic trends of isoelectronic late transition metal clusters. Physical Review B, 2008, 78, .	3.2	59
9	Study of the Structural and Electronic Properties of Rh _N and Ru _N Clusters (N < 20) within the Density Functional Theory. Journal of Physical Chemistry A, 2009, 113, 13483-13491.	2.5	53
10	Theoretical investigation of free-standing CoPd nanoclusters as a function of cluster size and stoichiometry in the Pd-rich phase: Geometry, chemical order, magnetism, and metallic behavior. Physical Review B, 2006, 74, .	3.2	52
11	DFT and GEGA genetic algorithm optimized structures of Cu _n (n=1,0,2; n=3-13) clusters. European Physical Journal D, 2010, 57, 49-60.	1.3	50
12	Average magnetization and local magnetic moments of Fe _N clusters (N<230). Physical Review B, 1999, 60, 434-439.	3.2	43
13	Mean-field theory of magnetic transitions in semi-infinite Ising models. Physical Review B, 1985, 31, 7146-7150.	3.2	41
14	Stability, magnetic behavior, and chemical order of small Rh _n clusters. Physical Review B, 2009, 79, .	3.2	40
15	Stability, magnetic behavior, and chemical order of small Rh _n clusters. Physical Review B, 2012, 86, .	3.2	36
16	Phase transitions in Ising square antiferromagnets with first- and second-neighbour interactions. Journal of Physics Condensed Matter, 1994, 6, 9759-9772.	1.8	34
17	Modeling the magnetic properties of Heusler alloys. Journal of Magnetism and Magnetic Materials, 1994, 131, 417-426.	2.3	30
18	Structural, electronic, and magnetic properties of Fe ₃ CoNi clusters: A density-functional-theory study. Journal of Magnetism and Magnetic Materials, 2015, 394, 325-334.	2.3	30

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19	Stability, structural, and magnetic phase diagrams of ternary ferromagnetic 3 <i>d</i> -transition-metal clusters with five and six atoms. <i>Journal of Chemical Physics</i> , 2011, 134, 054101.	3.0	29
20	Hydrogen Interaction in Pd-Pt Alloy Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2012, 116, 126-133.	3.1	28
21	Magnetic properties of small 3 <i>d</i> and 4 <i>d</i> transition metal clusters: The role of a noncompact growth. <i>Physical Review B</i> , 2006, 73, .	3.2	27
22	Magnetic properties of Pd atomic clusters from different theoretical approaches. <i>European Physical Journal D</i> , 2007, 44, 125-131.	1.3	26
23	Ab Initio Study of the Adsorption of NO on the Rh ₆ +Cluster. <i>Journal of Physical Chemistry A</i> , 2011, 115, 8350-8360.	2.5	25
24	Structure, fragmentation patterns, and magnetic properties of small cobalt oxide clusters. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 21732-21741.	2.8	25
25	Structural evolution of free Co cluster magnetism. <i>Solid State Communications</i> , 1999, 111, 335-340.	1.9	24
26	Structural and magnetic properties of CoRh nanoparticles. <i>Physical Review B</i> , 2004, 70, .	3.2	24
27	A density-functional study of the structures, binding energies and magnetic moments of the clusters Mo _{<i>n</i>} (<i>n</i> = 2-13), Mo ₁₂ Fe, Mo ₁₂ Co and Mo ₁₂ Ni. <i>Nanotechnology</i> , 2008, 19, 145704.	2.6	24
28	Structural, electronic and magnetic properties of , for M=13, 19, and 55, from first principles. <i>Journal of Magnetism and Magnetic Materials</i> , 2014, 355, 215-224.	2.3	23
29	Theory of phase equilibria in Co-Fe alloys. <i>Physical Review B</i> , 1985, 31, 1686-1688.	3.2	20
30	Electronic and geometrical effects on the magnetism of small RuN clusters. <i>Journal of Magnetism and Magnetic Materials</i> , 1998, 186, 214-222.	2.3	20
31	Cluster variation method and Monte Carlo simulations in Ising square antiferromagnets. <i>Solid State Communications</i> , 1999, 112, 437-441.	1.9	20
32	Bimetallic Fe-Ni Cluster Alloys: Stability of Core(Fe)-Shell(Ni) Arrays and Their Role Played in the Structure and Magnetic Behavior. <i>Journal of Physical Chemistry C</i> , 2008, 112, 6729-6739.	3.1	20
33	Theoretical study of bimetallic magnetic nanostructures: CoPd _{<i>n</i>} , <i>n</i> =0,1,...,N, N=3,5,7,13. <i>European Physical Journal D</i> , 2010, 57, 61-69.	1.3	19
34	DFT study of the fragmentation channels and electronic properties of Cu _{<i>n</i>} (<i>n</i> = 1,0,2; <i>n</i> =3-13) clusters. <i>European Physical Journal D</i> , 2010, 57, 335-342.	1.3	19
35	Nonmetal-metal transition in Ni clusters. <i>Solid State Communications</i> , 1997, 104, 635-639.	1.9	18
36	Magnetic moments of iron clusters: a simple theoretical model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 242, 255-260.	2.1	18

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37	Metallic behavior of Pd atomic clusters. <i>Nanotechnology</i> , 2007, 18, 365706.	2.6	18
38	Electronic structure and stability of polycrystalline cobalt clusters. <i>Physical Review B</i> , 2002, 65, .	3.2	17
39	Magnetism in small Pd clusters. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2004, 332, 107-114.	2.1	17
40	A first principles systematic study of the structural, electronic, and magnetic properties of Heusler $X_{2n}MnZ$ with $X = Fe, Co, Ni, Cu, Ru, Rh, Pd, Ag, Pt, Au$ and $Z = Al, Si, Ga, Ge, In$ and Sn . <i>Materials Research Express</i> , 2019, 6, 106118.	1.6	17
41	Phase transitions in bcc(110) binary-alloy thin films. <i>Physical Review B</i> , 1995, 52, 5392-5399.	3.2	16
42	Structural and magnetic properties of $FemYn$ ($m \hat{+} n \hat{=} 7$, $Y = Ru, Rh, Pd, \text{ and } Pt$) nanoalloys. <i>European Physical Journal D</i> , 2011, 64, 53-62.	1.3	16
43	Structural and electronic properties of $Ni_{26}X_p$ clusters ($X = Pd, Pt$): A density-functional-theoretic study. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	16
44	Collinear versus noncollinear magnetic order in Pd atomic clusters: Ab initio calculations. <i>Physical Review B</i> , 2006, 74, .	3.2	15
45	Antiferromagnetic-like coupling in the cationic iron cluster of thirteen atoms. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 14458.	2.8	15
46	Structural, electronic and catalytic properties of bimetallic Pt Ag ($n = 7$) clusters. <i>Journal of Alloys and Compounds</i> , 2020, 845, 155897.	5.5	15
47	Magnetic moments of. <i>European Physical Journal D</i> , 1999, 6, 235.	1.3	15
48	$\langle m \rangle = \frac{1}{N} \sum_i \langle m_i \rangle$ Structural transition and electronic structure of interest in spintronics. <i>Physical Review B</i> , 2009, 79, .	3.2	14
49	Structural, Electronic, and Magnetic Properties Of Co_nCu_m Nanoalloys ($n + m = 12$) from First Principles Calculations. <i>Journal of Physical Chemistry A</i> , 2012, 116, 9353-9360.	2.5	14
50	Geometrical structure and magnetism of nickel clusters. <i>Solid State Communications</i> , 1998, 107, 25-30.	1.9	13
51	Tight-binding and evolutionary search approach for nanoscale CoRh alloys. <i>Physica B: Condensed Matter</i> , 2005, 370, 200-214.	2.7	13
52	Twining effects in the magnetism of small Pd clusters. <i>Solid State Communications</i> , 2005, 133, 573-578.	1.9	13
53	New structural and electronic properties of $(TiO_2)_n$. <i>Journal of Chemical Physics</i> , 2016, 144, 234312.	3.0	13
54	Polymer statistics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992, 182, 331-345.	2.6	12

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55	Hydrogen insertion in Pd core/Pt shell cubo-octahedral nanoparticles. <i>Physical Review B</i> , 2011, 83, .	3.2	12
56	A new family of star-like icosahedral structures for small cobalt clusters. <i>Chemical Physics</i> , 2013, 415, 106-111.	1.9	12
57	Structural, electronic, and magnetic properties of Fe _x Co _y Pd _z (x ² +y ² +z ² =7) clusters: a density functional theory study. <i>Journal of Nanoparticle Research</i> , 2016, 18, 1.	1.9	12
58	Structure, fragmentation patterns, and magnetic properties of small nickel oxide clusters. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 3366-3383.	2.8	12
59	Magnetic long- and short-range order at the surface of ferromagnets. <i>Physical Review B</i> , 1983, 28, 3909-3913.	3.2	11
60	Polymer statistics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1991, 176, 514-533.	2.6	11
61	Polymer statistics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992, 189, 81-107.	2.6	11
62	Polymer statistics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992, 189, 108-126.	2.6	11
63	Specific heat and the phase diagram of the Ising square lattice with nearest- and next-nearest interactions. <i>Journal of Physics Condensed Matter</i> , 1993, 5, A195-A196.	1.8	11
64	Magnetic behaviour of selected geometries of Pd clusters: icosahedral versus fcc structures. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2004, 330, 126-130.	2.1	11
65	Magnetic structure of cobalt clusters. <i>Journal of Alloys and Compounds</i> , 2004, 369, 93-96.	5.5	11
66	Breakdown of magnetism in sub-nanometric Ni clusters embedded in Ag. <i>Nanotechnology</i> , 2015, 26, 455703.	2.6	11
67	Magnetism and Distortions in Two-Dimensional Transition-Metal Dioxides: On the Quest for Intrinsic Magnetic Semiconductor Layers. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2634-2643.	3.1	11
68	Finite size scaling in Ising thin films. <i>Solid State Communications</i> , 1994, 91, 435-438.	1.9	10
69	Magnetic Cooperative Effects in Small Ni ²⁺ /Ru Clusters. <i>Journal of Physical Chemistry A</i> , 2011, 115, 13950-13955.	2.5	10
70	Relation between structural patterns and magnetism in small iron oxide clusters: reentrance of the magnetic moment at high oxidation ratios. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 246-272.	2.8	10
71	Magnetic properties of cubo-octahedral Ising clusters. <i>Solid State Communications</i> , 1993, 88, 101-104.	1.9	9
72	The s and p character of the electronic structure of C ₂₀ , C ₆₀ and C ₇₀ . <i>Solid State Communications</i> , 1993, 85, 767-771.	1.9	9

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73	Spin-orbit effects on the structural, homotop, and magnetic configurations of small pure and Fe-doped Pt clusters. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	1.9	8
74	Magnetic properties of large Ising clusters. <i>Surface Science</i> , 1995, 326, 150-160.	1.9	7
75	Structural and Electronic Properties of $TM_{n+1}[(BN)_3H_6]_m$ Complexes with $TM = Co$ ($n = 1, 2, 3$) and with $TM = Fe, Ni, Ru, Rh, Pd$ ($n = 1, 2, 3$). <i>Journal of Physical Chemistry A</i> , 2014, 118, 2976-2983.	2.5	7
76	Polymer statistics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1993, 195, 53-73.	2.6	6
77	Magnetism of small Mn clusters. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 239, 457-462.	1.5	6
78	Magnetic behavior of Pd nanoclusters. <i>Physica B: Condensed Matter</i> , 2004, 354, 271-277.	2.7	6
79	Structural and electronic properties of $(TiO_2)_{10}$ clusters with impurities: A density functional theory investigation. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 135, 109107.	4.0	6
80	Phase transitions in layered magnetic structures. <i>Solid State Communications</i> , 1992, 82, 71-74.	1.9	5
81	Electronic structure of some semiconductor fullerenes. <i>Scripta Materialia</i> , 1993, 3, 469-477.	0.5	5
82	Magnetism in Rh clusters under hydrostatic deformations. <i>European Physical Journal D</i> , 2003, 23, 343-349.	1.3	5
83	Hysteresis for anisotropic \hat{A}_{\pm} Ising square lattices. <i>Journal of Alloys and Compounds</i> , 2004, 369, 55-57.	5.5	5
84	Structural, Vibrational, and Magnetic Properties of $FeCoO_{n+1}$ ($n = 1-6$) Bimetallic Oxide Clusters. <i>Journal of Physical Chemistry C</i> , 2015, 119, 11200-11209.	3.1	5
85	TiO ₂ nano-clusters adsorbed on surfaces: A density-functional-theoretic study. <i>Journal of Physics and Chemistry of Solids</i> , 2021, 150, 109716.	4.0	5
86	Adsorption of random copolymer on surfaces. <i>Journal De Physique II</i> , 1994, 4, 1651-1675.	0.9	5
87	Finite-size effects on the phase diagrams of binary alloy films. <i>Solid State Communications</i> , 1998, 107, 285-289.	1.9	4
88	On the metallic behavior of Co clusters. <i>Solid State Communications</i> , 1999, 113, 147-151.	1.9	4
89	Electronic Properties of Small Free Co Clusters. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 220, 455-460.	1.5	4
90	Nonmetal-metal transition in RhN and RuN clusters. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000, 265, 116-121.	2.1	4

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91	Magnetic moments in Ni clusters with deformations. Solid State Communications, 2001, 117, 477-482.	1.9	4
92	Effects of the structural deformations on the magnetism of Rh6 and Rh13 clusters. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 318, 473-479.	2.1	4
93	Magnetism in segregated bimetallic CoRh nanoclusters. Physica B: Condensed Matter, 2004, 354, 278-281.	2.7	4
94	Structural and electronic properties of (TiO ₂) _N nanowires: A density functional theory investigation. Journal of Physics and Chemistry of Solids, 2018, 119, 175-182.	4.0	4
95	Magnetic properties of small vanadium clusters. Journal of Alloys and Compounds, 2004, 369, 52-54.	5.5	3
96	Bimetallic (AuPt) ₄ nano-clusters adsorbed on TiO ₂ nano-wires: A density-functional-theoretic study. Journal of Physics and Chemistry of Solids, 2021, 159, 110275.	4.0	3
97	Order parameters in anisotropic two-dimensional $\hat{A}\pm J$ Ising lattices. Physica A: Statistical Mechanics and Its Applications, 2003, 327, 477-490.	2.6	2
98	Axial anisotropic effects in hysteresis of $\hat{A}\pm J$ Ising lattices. Physical Review B, 2004, 70, .	3.2	2
99	A two dimensional Heusler alloy model. Solid State Communications, 2009, 149, 73-77.	1.9	2
100	Structure, fragmentation patterns, and electronic properties of small indium oxide clusters. Theoretical Chemistry Accounts, 2018, 137, 1.	1.4	2
101	Tuning the Magnetic Moment of Small Late 3d-Transition-Metal Oxide Clusters by Selectively Mixing the Transition-Metal Constituents. Nanomaterials, 2020, 10, 1814.	4.1	2
102	Spatial and magnetic ordering of systems chemisorbed at the surface of ferromagnets. Physical Review B, 1984, 30, 2666-2670.	3.2	1
103	The Pair Approximation of the Cluster Variation Method as Applied to bcc Alloys. Progress of Theoretical Physics Supplement, 1994, 115, 165-169.	0.1	1
104	Deformation Effects in the Magnetic Moments of Ni Clusters. , 2001, , 77-85.		1
105	Magnetic trends in M _n nanoclusters effects of uniform relaxations on the magnetic properties. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 325, 144-148.	2.1	1
106	Titanium embedded cage structure formation in Al _n Ti ₊ clusters and their interaction with Ar. Journal of Chemical Physics, 2014, 140, 174304.	3.0	1
107	Theoretical Study of the Metal-Nonmetal Transition in Transition Metal Clusters. , 1998, , 109-117.		1
108	End effects in adsorption of homopolymers and triblock copolymers. Journal De Physique II, 1993, 3, 1141-1159.	0.9	1

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109	Hollow structures of Ti O systems with m $\hat{\%}^{\wedge} 2n$: A density functional theoretical study. Journal of Physics and Chemistry of Solids, 2022, 164, 110646.	4.0	1
110	Recursion method study of the electronic structure of some fullerenes. Journal of Physics Condensed Matter, 1993, 5, A389-A392.	1.8	0
111	Magnetic interactions between small Ni clusters. Solid State Communications, 2000, 116, 309-314.	1.9	0
112	Phase Transitions in Ultrathin Films. Springer Proceedings in Physics, 1992, , 453-462.	0.2	0
113	Mean Field Study of Size Scaling in Ising Thin Films. , 1994, , 167-174.		0
114	Magnetic Properties of Cubo-Octahedral Ising Clusters. , 1994, , 47-55.		0
115	Cluster Variation Method Applications to Large Ising Aggregates. , 1996, , 219-235.		0
116	Magnetic Surface Enhancement and the Curie Temperature in Ising Thin Films. , 1998, , 219-226.		0
117	Phase Transitions in Ising Square Antiferromagnets: A Controversial System. , 1998, , 203-207.		0