

Hamid Kachkachi

List of Publications by Year in descending order

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docs citations

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times ranked

2006
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface-related properties of $\hat{\text{I}}^3\text{-Fe}_2\text{O}_3$ nanoparticles. Journal of Magnetism and Magnetic Materials, 2000, 221, 63-79.	2.3	272
2	Surface Contribution to the Anisotropy of Magnetic Nanoparticles. Physical Review Letters, 2003, 90, 065504.	7.8	200
3	Surface effects in nanoparticles: application to maghemite -Fe O. European Physical Journal B, 2000, 14, 681-689.	1.5	146
4	Generalized Ginzburg-Landau theory for nonuniform FFLO superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 225, 341-348.	2.1	142
5	Effective anisotropies and energy barriers of magnetic nanoparticles with $\text{N}\hat{\text{A}}\text{el}$ surface anisotropy. Physical Review B, 2007, 76, .	3.2	122
6	From pure superparamagnetism to glass collective state in $\hat{\text{I}}^3\text{-Fe}_2\text{O}_3$ nanoparticle assemblies. Journal of Magnetism and Magnetic Materials, 1999, 203, 23-27.	2.3	105
7	Hysteretic properties of a magnetic particle with strong surface anisotropy. Physical Review B, 2002, 66, .	3.2	96
8	Multiscale modeling of magnetic materials: Temperature dependence of the exchange stiffness. Physical Review B, 2010, 82, .	3.2	95
9	Surface-induced cubic anisotropy in nanomagnets. Physical Review B, 2006, 73, .	3.2	66
10	Finite-size versus surface effects in nanoparticles. Journal of Magnetism and Magnetic Materials, 2000, 221, 158-163.	2.3	60
11	Field dependence of the temperature at the peak of the zero-field-cooled magnetization. Journal of Physics Condensed Matter, 2000, 12, 3077-3090.	1.8	36
12	Surface anisotropy in nanomagnets: transverse or $\text{N}\hat{\text{A}}\text{el}$?. Journal of Magnetism and Magnetic Materials, 2004, 278, 334-341.	2.3	31
13	Effects of spin non-collinearities in magnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2007, 316, 248-254.	2.3	30
14	Effects of dipolar interactions on the zero-field-cooled magnetization of a nanoparticle assembly. Physical Review B, 2007, 75, .	3.2	30
15	Optimal switching of a nanomagnet assisted by microwaves. Physical Review B, 2011, 83, .	3.2	30
16	Boundary and finite-size effects in small magnetic systems. Physica A: Statistical Mechanics and Its Applications, 2001, 300, 487-504.	2.6	28
17	Magnetic anisotropies in ultrathin bismuth iron garnet films. Journal of Magnetism and Magnetic Materials, 2013, 335, 139-143.	2.3	28
18	Interplay between surface anisotropy and dipolar interactions in an assembly of nanomagnets. Physical Review B, 2013, 88, .	3.2	28

#	ARTICLE	IF	CITATIONS
19	Magnetization reversal via internal spin waves in magnetic nanoparticles. <i>Physical Review B</i> , 2009, 80, .	3.2	27
20	Effect of surface anisotropy on the hysteretic properties of a magnetic particle. <i>Journal of Applied Physics</i> , 2002, 91, 7625.	2.5	25
21	Magnetization of nanomagnet assemblies: Effects of anisotropy and dipolar interactions. <i>European Physical Journal B</i> , 2005, 44, 299-308.	1.5	24
22	Microwave-assisted switching of a nanomagnet: Analytical determination of the optimal microwave field. <i>Physical Review B</i> , 2013, 88, .	3.2	22
23	Unified decoupling scheme for exchange and anisotropy contributions and temperature-dependent spectral properties of anisotropic spin systems. <i>Physical Review B</i> , 2012, 86, .	3.2	21
24	Spin configurations in hard/soft coupled bilayer systems: Transitions from rigid magnet to exchange-spring. <i>Physical Review B</i> , 2010, 82, .	3.2	20
25	Thermal and surface anisotropy effects on the magnetization reversal of a nanocluster. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 134004.	2.8	19
26	ac susceptibility of an assembly of nanomagnets: Combined effects of surface anisotropy and dipolar interactions. <i>Physical Review B</i> , 2014, 90, .	3.2	19
27	Magnetic free energy at elevated temperatures and hysteresis of magnetic particles. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 291, 485-500.	2.6	17
28	Surface effects on the magnetic behavior of nanoparticle assemblies. <i>Physical Review B</i> , 2012, 85, .	3.2	17
29	Magnetization nutation induced by surface effects in nanomagnets. <i>Physical Review B</i> , 2018, 98, .	3.2	17
30	Ferromagnetic resonance in systems with competing uniaxial and cubic anisotropies. <i>European Physical Journal B</i> , 2007, 56, 27-33.	1.5	16
31	Plasmon-enhanced diffraction in nanoparticle gratings fabricated by in situ photo-reduction of gold chloride doped polymer thin films by laser interference patterning. <i>Journal of Materials Chemistry C</i> , 2017, 5, 3553-3560.	5.5	16
32	Spin-wave theory for finite classical magnets and superparamagnetic relation. <i>European Physical Journal B</i> , 2001, 22, 291-300.	1.5	15
33	Magnetization dynamics of two interacting spins in an external magnetic field. <i>Physical Review B</i> , 2005, 72, .	3.2	15
34	Effect of dipolar interactions and DC magnetic field on the specific absorption rate of an array of magnetic nanoparticles. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	13
35	Interpolation formulae between axially symmetric and non-axially symmetric Kramers's™ escape rates for single-domain ferromagnetic particles in the intermediate to high-damping limit. <i>Journal of Magnetism and Magnetic Materials</i> , 2000, 221, 110-123.	2.3	12
36	Dynamics of a nanoparticle as a one-spin system and beyond. <i>Journal of Molecular Liquids</i> , 2004, 114, 113-130.	4.9	12

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37	Magnetic Nanoparticles as Many-Spin Systems. , 2005, , 75-104.		12
38	Effect of exchange interaction on superparamagnetic relaxation. Europhysics Letters, 2003, 62, 650-656.	2.0	11
39	Dynamical Susceptibility of Weakly Interacting Ferromagnetic Nanoclusters. Journal of Nanoscience and Nanotechnology, 2012, 12, 4843-4850.	0.9	11
40	Magnetization reversal and nonexponential relaxation via instabilities of internal spin waves in nanomagnets. Europhysics Letters, 2008, 82, 17007.	2.0	9
41	Single-Particle Phenomena in Magnetic Nanostructures. Solid State Physics, 2015, 66, 301-423.	0.5	9
42	Ferromagnetic resonance of a magnetic dimer with dipolar coupling. Journal of Applied Physics, 2014, 116, 243905.	2.5	8
43	Specific absorption rate of magnetic nanoparticles: Nonlinear AC susceptibility. Journal of Applied Physics, 2020, 128, 143901.	2.5	7
44	Collective Effects in Assemblies of Magnetic Nanoparticles. Solid State Physics, 2016, , 1-101.	0.5	7
45	Dynamics of a magnetic dimer with exchange, dipolar, and Dzyalozhinski-Moriya interaction. Physical Review B, 2011, 84, .	3.2	6
46	Ferromagnetic resonance of a two-dimensional array of nanomagnets: Effects of surface anisotropy and dipolar interactions. Physical Review B, 2018, 97, .	3.2	6
47	The super-Weierstrass ζ -function and operator product expansions in 2D-induced supergravity on the supertorus. Classical and Quantum Gravity, 1994, 11, 493-501.	4.0	5
48	Induced Polyakov supergravity on Riemann surfaces of higher genus. Classical and Quantum Gravity, 1994, 11, 767-784.	4.0	5
49	The Polyakov action on the supertorus. Classical and Quantum Gravity, 1993, 10, 417-427.	4.0	4
50	Superparamagnetic susceptibility of a nanoparticle assembly: application of the Onsager model. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 37-39.	2.3	4
51	Surface effects on ferromagnetic resonance in magnetic nanocubes. Journal of Physics Condensed Matter, 2017, 29, 025801.	1.8	4
52	Single-particle versus collective effects in assemblies of nanomagnets: Screening. Journal of Magnetism and Magnetic Materials, 2020, 500, 166286.	2.3	4
53	Ferromagnetic resonance of magnetostatically coupled shifted chains of nanoparticles in an oblique magnetic field. Journal of Applied Physics, 2016, 119, .	2.5	3
54	Single Nanomagnet Behaviour: Surface and Finite-Size Effects. Springer Series in Materials Science, 2021, , 3-38.	0.6	3

#	ARTICLE	IF	CITATIONS
55	Universal phase diagram for transitions to non-uniform states with one-component order parameter. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 237, 276-282.	2.1	2
56	Spin configuration of magnetic multi-layers: effect of exchange, dipolar and Dzyalozhinskiâ€™Moriya interactions. Journal of Physics Condensed Matter, 2013, 25, 316003.	1.8	1
57	Time profile of temperature rise in assemblies of nanomagnets. Journal of Magnetism and Magnetic Materials, 2022, , 169354.	2.3	1
58	Redundancy of the quantum level gauge condition. Journal of Mathematical Physics, 1994, 35, 4477-4482.	1.1	0
59	Magnetic and thermodynamic properties of Sr ₂ LaFe ₃ O ₉ . Journal of Magnetism and Magnetic Materials, 1997, 172, 173-182.	2.3	0
60	Dynamics of a nanoparticle as a one-spin system and beyond. Journal of Molecular Liquids, 2004, 114, 113-113.	4.9	0
61	Equilibrium and dynamic behaviour of (weakly) interacting assemblies of magnetic nanoparticles. Journal of Physics: Conference Series, 2014, 521, 012010.	0.4	0
62	Microwave-assisted switching: optimal microwave field for a nanomagnet with surface anisotropy. Journal of Physics: Conference Series, 2014, 521, 012005.	0.4	0
63	Surface-induced reduction of the switching field in nanomagnets. Journal of Magnetism and Magnetic Materials, 2022, 553, 168966.	2.3	0