

Harsh Deep Chopra

List of Publications by Year in descending order

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55
papers

1,419
citations

361413

20
h-index

330143

37
g-index

57
all docs

57
docs citations

57
times ranked

1168
citing authors

#	ARTICLE	IF	CITATIONS
1	Ballistic magnetoresistance over 3000% in Ni nanocontacts at room temperature. Physical Review B, 2002, 66, .	3.2	159
2	Magnetic-field-induced twin boundary motion in magnetic shape-memory alloys. Physical Review B, 2000, 61, R14913-R14915.	3.2	120
3	Microfluidic Actuation Using Electrochemically Generated Bubbles. Analytical Chemistry, 2002, 74, 6392-6396.	6.5	106
4	Non-Joulian magnetostriction. Nature, 2015, 521, 340-343.	27.8	96
5	100,000 % ballistic magnetoresistance in stable Ni nanocontacts at room temperature. Physical Review B, 2003, 67, .	3.2	86
6	Nature of coupling and origin of coercivity in giant magnetoresistance NiO-Co-Cu-based spin valves. Physical Review B, 2000, 61, 9642-9652.	3.2	78
7	The quantum spin-valve in cobalt atomic point contacts. Nature Materials, 2005, 4, 832-837.	27.5	74
8	Ballistic magnetoresistance in nickel single-atom conductors without magnetostriction. Physical Review B, 2005, 71, .	3.2	54
9	Temperature- and field-dependent evolution of micromagnetic structure in ferromagnetic shape-memory alloys. Physical Review B, 2004, 70, .	3.2	45
10	Nanostructural considerations in giant magnetoresistive Co-Cu-based symmetric spin valves. Physical Review B, 1997, 55, 8390-8397.	3.2	44
11	Nature of magnetization reversal in exchange-coupled polycrystalline NiO-Co bilayers. Physical Review B, 2000, 61, 15312-15320.	3.2	41
12	Effect of plastic strain on magnetic and mechanical properties of ultralow carbon sheet steel. Journal of Applied Physics, 1997, 81, 4263-4265.	2.5	39
13	Magnetoelastic and magnetostatic interactions in exchange-spring multilayers. Physical Review B, 2005, 72, .	3.2	29
14	The structure of metastable {111}, precipitates in an Al-2.5 wt% Cu-1.5 wt% Mg-0.5 wt% Ag alloy. Philosophical Magazine Letters, 1995, 71, 319-324.	1.2	26
15	Domain structures in bent In-22.5 at.%Tl polydomain crystals. Acta Materialia, 1996, 44, 747-751.	7.9	26
16	Pathways of structural and magnetic transition in ferromagnetic shape-memory alloys. Physical Review B, 2004, 70, .	3.2	24
17	Atomic engineering of spin valves using Ag as a surfactant. Journal of Applied Physics, 2001, 89, 7121-7123.	2.5	23
18	Nanostructure, interfaces, and magnetic properties in giant magnetoresistive NiO-Co-Cu-based spin valves. Journal of Applied Physics, 1997, 81, 4017-4019.	2.5	22

#	ARTICLE	IF	CITATIONS
19	Magnetic behavior of atomically engineered NiO-Co-Cu-based giant magnetoresistance spin valves using Pb as a surface modifier. <i>Acta Materialia</i> , 2000, 48, 3501-3508.	7.9	21
20	Role of magnetostatic interactions in micromagnetic structure of multiferroics. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	21
21	Multifunctional Charge-Transfer Single Crystals through Supramolecular Assembly. <i>Advanced Materials</i> , 2016, 28, 5322-5329.	21.0	21
22	Surfactant-assisted atomic-level engineering of spin valves. <i>Physical Review B</i> , 2002, 65, .	3.2	20
23	In situ study of temperature dependent magnetoelastoc correlated behavior in ferromagnetic shape memory alloys. <i>Journal of Applied Physics</i> , 2004, 95, 6951-6953.	2.5	18
24	Beam model for calculating magnetostriction strains in thin films and multilayers. <i>Applied Physics Letters</i> , 2001, 79, 3818-3820.	3.3	17
25	Channel saturation and conductance quantization in single-atom gold constrictions. <i>Physical Review B</i> , 2010, 82, .	3.2	16
26	Anisotropic Curie temperature materials. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 387-395.	1.5	16
27	Magnetoelastic dependence of switching field in TbFe-Co giant magnetostrictive spring-magnet multilayers. <i>Journal of Applied Physics</i> , 2000, 87, 5780-5782.	2.5	14
28	Mechanics of quantum and Sharvin conductors. <i>Physical Review B</i> , 2011, 83, .	3.2	13
29	Temperature-dependent deformation of polydomain phases in an In-22.5 At. Pct Ti shape memory alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1996, 27, 1695-1700.	2.2	11
30	Mechanistic understanding of transition between quantized conductance plateaus under strain perturbation. <i>Physical Review B</i> , 2008, 78, .	3.2	11
31	Morphogenesis of maze-like magnetic domains. <i>Physical Review B</i> , 2010, 82, .	3.2	11
32	Addendum: Non-Joulian magnetostriction. <i>Nature</i> , 2016, 538, 416-416.	27.8	11
33	Antiferromagnetic spin and twin domain walls govern hysteretic expressions of exchange anisotropy. <i>Physical Review B</i> , 2009, 80, .	3.2	10
34	Multiple phase transitions found in a magnetic Heusler alloy and thermodynamics of their magnetic internal energy. <i>Physical Review B</i> , 2010, 81, .	3.2	9
35	Magnetization reversal in half-metallic epitaxial CrO ₂ films. <i>Journal of Applied Physics</i> , 2002, 92, 5409-5412.	2.5	8
36	Non-Joulian Magnetostriction and Non-Joulian Magnetism. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1800214.	1.5	8

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37	Observation of domain dynamics in giant magnetoresistive Co/Cu-based polycrystalline multilayers. Journal of Applied Physics, 1997, 81, 4582-4584.	2.5	7
38	Magnetic mesostructure of giant magnetostrictive spring magnet type multilayers. Journal of Applied Physics, 1999, 85, 6238-6240.	2.5	7
39	Strength of metals at the Fermi length scale. Physica Status Solidi - Rapid Research Letters, 2012, 6, 99-101.	2.4	7
40	Magnetization reversal in polycrystalline NiO/Co exchange anisotropy coupled bilayers. Journal of Applied Physics, 2000, 87, 4942-4944.	2.5	6
41	Magnetic mosaics in crystalline tiles: The novel concept of polymagnets (invited). International Journal of Applied Electromagnetics and Mechanics, 2005, 22, 11-23.	0.6	6
42	Method to study temperature and stress induced magnetic transitions. Review of Scientific Instruments, 2005, 76, 013910.	1.3	5
43	Altering magnetostrictive strain pathways via morphology of spontaneously aligned domains. Physical Review B, 2011, 84, .	3.2	5
44	Non-Destructive Evaluation of Mechanical Properties of Magnetic Materials. Materials Research Society Symposia Proceedings, 1999, 591, 158.	0.1	4
45	Contributions to switching field in NiO/Co/Cu-based spin valves. Journal of Applied Physics, 2000, 87, 6986-6988.	2.5	4
46	Contracting non-Joulian magnets. Physical Review B, 2017, 95, .	3.2	4
47	Giant magnetoresistance in symmetric spin-valves: nanostructure and domain dynamics. Scripta Materialia, 1997, 9, 451-454.	0.5	3
48	Fundamental Investigation of Ferromagnetic Shape Memory Alloys: A New Perspective. Materials Research Society Symposia Proceedings, 2003, 785, 1321.	0.1	3
49	Cooperative motion of domain walls in magnetic multilayers. Physical Review B, 2011, 83, .	3.2	3
50	Structure-Property Relationship of Ion-Beam Sputtered Nd-Fe-B Magnetic Thin Films On (111) Silicon. Materials Research Society Symposia Proceedings, 1994, 354, 511.	0.1	2
51	Carbon: A bane for giant magnetoresistance magnetic multilayers. Applied Physics Letters, 2002, 80, 2943-2945.	3.3	2
52	Improved interfaces and magnetic properties in spin valves using Ni ₈₀ Fe ₂₀ seed layer. Journal of Applied Physics, 2002, 91, 3891-3895.	2.5	2
53	Highly deleterious role of small amounts of carbon on the giant magnetoresistance effect. Journal of Applied Physics, 2003, 93, 8415-8417.	2.5	1
54	Physical properties of a two-component system at the Fermi and Sharvin length scales. Journal of Applied Physics, 2012, 112, 104320.	2.5	0

#	ARTICLE	IF	CITATIONS
55	Giant Magneto-Elastic and Magneto-Volume Effects in Fe-Al. Journal of the Physical Society of Japan, 2019, 88, 033702.	1.6	0