

Soon Cheol Hong

List of Publications by Year in descending order

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117
papers

4,623
citations

236925
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117
docs citations

117
times ranked

7519
citing authors

ARTICLE: Is and strain effects on electronic structures of transition metal dichalcogenides:

IF

CITATIONS

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1

display="block"><math>\frac{M}{X^2}</math>



#	ARTICLE	IF	CITATIONS
19	Half metallic ferromagnetism of Mn doped AlSb: A first principles study. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 4435-4438.	1.5	30
20	The study of oxygen molecules on Pt (111) surface with high resolution x-ray photoemission spectroscopy. <i>Journal of Chemical Physics</i> , 2010, 133, 034501.	3.0	30
21	Surface-termination-dependent magnetism and strong perpendicular magnetocrystalline anisotropy of an FeRh(001) thin film. <i>Physical Review B</i> , 2015, 92, .	3.2	30
22	Electron beam-formed ferromagnetic defects on MoS ₂ surface along 1%T phase transition. <i>Scientific Reports</i> , 2016, 6, 38730.	3.3	29
23	Evidence for the origin of reconstruction of the Mo(001) surface. <i>Physical Review Letters</i> , 1992, 69, 2228-2231.	7.8	28
24	Giant magnetostriction of $\text{Fe}_{\text{mml:mrow}} \text{mml:msub} \text{mml:mrow} \text{mml:mtext} \text{Fe}$. A first-principles study. <i>Physical Review B</i> , 2009, 79, .	3.2	27
25	A first-principles study of magnetostrictions of Fe ₃ O ₄ and CoFe ₂ O ₄ . <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	26
26	Phototransistors: High Detectivity Multilayer MoS ₂ Phototransistors with Spectral Response from Ultraviolet to Infrared (Adv. Mater. 43/2012). <i>Advanced Materials</i> , 2012, 24, 5902-5902.	21.0	24
27	Investigation of electron irradiation-induced magnetism in layered MoS ₂ single crystals. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	23
28	Jahn-Teller driven perpendicular magnetocrystalline anisotropy in metastable ruthenium. <i>Physical Review B</i> , 2015, 91, .	3.2	21
29	First-Principles Prediction of Possible Rare-Earth Free Permanent Magnet of Tetragonal $\text{Fe}_{\text{mml:mrow}} \text{mml:mi} \text{Co}_{\text{mml:mi}}$ with Enhanced Magnetic Anisotropy and Energy Product through Interstitial Nitrogen. <i>Physical Review Applied</i> , 2019, 11, .	3.8	21
30	Surface alloying and magnetism of ultrathin Fe films on Pd(001). <i>Physical Review B</i> , 2001, 65, .	3.2	20
31	Ferromagnetic ordering in Mn induced by thermal strain. <i>Physical Review B</i> , 2009, 79, .	3.2	20
32	Suppression of ferromagnetic order of Fe overlayers on the Rh(001) surface. <i>Physical Review B</i> , 1999, 60, 14429-14433.	3.2	19
33	Growth and atomic structure of ordered Mn surface alloys on Au(001). <i>Physical Review B</i> , 2002, 65, .	3.2	19
34	Magnetism of zinc blende CrP(001) surface. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 2192-2194.	2.3	19
35	New analysis of electron energy exchange and cooling in semiconductors. <i>Applied Physics Letters</i> , 2008, 92, 083505.	3.3	19
36	Theory of perpendicular magnetocrystalline anisotropy in Fe/MgO (001). <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 414, 126-131.	2.3	18

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37	Electronic and magnetic properties of MnSnAs ₂ . <i>Physica Status Solidi (B): Basic Research</i> , 2004, 241, 1462-1465.	1.5	17
38	Strain-induced modification in the magnetic properties of Mn ₅ Ge ₃ thin films. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	17
39	Hydrogen interaction with a sulfur-vacancy-induced occupied defect state in the electronic band structure of MoS ₂ . <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 15302-15309.	2.8	17
40	Theoretical analysis of triple junction field emission for a type of cold cathode. <i>Journal of Vacuum Science & Technology B</i> , 2006, 24, 909.	1.3	16
41	Engineering of magnetostriction in Fe ₃ Pt _{1-x} I _x by controlling the Ir concentration. <i>Applied Physics Letters</i> , 2011, 98, 152502.	3.3	16
42	Enhancing Energy Product and Thermal Stability of $\text{Fe}_{12}\text{Pt}_8$ by Interstitial Doping. <i>Physical Review Applied</i> , 2020, 13, .		
43	Preparation of MoO ₃ /MoS ₂ /TiO ₂ Composites for Catalytic Degradation of Methylene Blue. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 5884-5891.	0.9	14
44	First-principles study of magnetization reorientation and large perpendicular magnetic anisotropy in heterostructures. <i>Physical Review B</i> , 2018, 98, .		
45	Interface Defect Engineering of a Large-scale CVD-grown MoS ₂ Monolayer via Residual Sodium at the SiO ₂ /Si Substrate. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100428.	3.7	14
46	Total Laparoscopic Resection of Primary Large Retroperitoneal Teratoma Resembling an Ovarian Tumor in an Adult. <i>Journal of Minimally Invasive Gynecology</i> , 2008, 15, 384-386.	0.6	13
47	First-principles investigation of huge magnetostriction in cubic L1 ₂ Fe ₃ Pt. <i>Journal of Applied Physics</i> , 2010, 107, 09A945.	2.5	12
48	Magnetocrystalline anisotropy energy and spin polarization of Fe ₃ Si in bulk and on Si(001) and Si(111) substrates. <i>Thin Solid Films</i> , 2011, 519, 8218-8222.	1.8	12
49	A first-principles study of magnetism of lithium fluorosulphate LiFeSO ₄ F. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	11
50	Spin-orbit torque engineering in W/CoFeB heterostructures with Ta or V alloy layers between W and CoFeB. <i>NPG Asia Materials</i> , 2021, 13, .	7.9	11
51	Strong perpendicular magnetocrystalline anisotropy of bulk and the (001) surface of DO ₂₂ Mn ₃ Ga: a density functional study. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 416003.	1.8	10
52	Hydrogen interaction with selectively desulfurized MoS ₂ surface using Ne+ sputtering. <i>Journal of Applied Physics</i> , 2019, 125, .	2.5	10
53	Photoemission study of the surface band structure of the reconstructed Mo(001) surface. <i>Physical Review B</i> , 1993, 47, 13594-13598.	3.2	9
54	Surface effect on the magnetism of aMnPt ₃ -type ordered surface alloy on Pt(001). <i>Physical Review B</i> , 2004, 70, .	3.2	9

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55	Half-metallic ferromagnetism of (CrP)1/(GaP)1 superlattice: A first-principles study. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 2138-2140.	2.3	9
56	Magnetocrystalline anisotropy of zinc-blende CrTe (001) surface: A first-principles study. <i>Thin Solid Films</i> , 2011, 519, 8355-8358.	1.8	9
57	Soft x-ray magnetic circular dichroism study of valence and spin states in FeT ₂ O ₄ (T=V, Cr) spinel oxides. <i>Journal of Applied Physics</i> , 2013, 113, 17E116.	2.5	9
58	Tunability of magnetic anisotropy of Co on two-dimensional materials by tetrahedral bonding. <i>Physical Review B</i> , 2019, 99, .	3.2	9
59	Anisotropic behavior of excitons in single-crystal $\hat{I}\ddot{\text{S}}\text{-SnS}$. <i>AIP Advances</i> , 2020, 10, .	1.3	9
60	Enhanced voltage-controlled magnetic anisotropy via magnetoelasticity in FePt/MgO(001). <i>Physical Review B</i> , 2020, 101, .	3.2	9
61	Magnetism and the Stoner Exchange Parameter of fcc Palladium. <i>Journal of the Korean Physical Society</i> , 2008, 52, 1099-1102.	0.7	9
62	Robust half-metallicities of alkali-metal-based half-Heusler compounds. <i>Physical Review Materials</i> , 2022, 6, .	2.4	9
63	Magnetic and electronic structures of zinc-blende FeX (X=P, As, Sb) by first principles calculations. <i>Journal of Magnetism and Magnetic Materials</i> , 2006, 304, e146-e148.	2.3	7
64	Magnetocrystalline Anisotropy of D0 ₃ {Fe}Si From First-Principles Study. <i>IEEE Transactions on Magnetics</i> , 2011, 47, 2920-2923. <i>Interplay between cmm₁m₁ and cmm₂m₂: http://www.w3.org/1998/Math/MathML</i>	2.1	7
65	display="inline">\mathbf{R}	3.2	7
66	display="block">$\mathbf{R} = \sum_{i=1}^{N_{\text{sites}}} \mathbf{f}_i \mathbf{m}_i$	0.7	7
67	Possible Magnetism of Be-Doped Boron Nitride Nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 4711-4713.	0.9	6
68	Magnetic anisotropy energy and effective exchange interactions in Co intercalated graphene on Ir(111). <i>Journal of Physics Condensed Matter</i> , 2014, 26, 476003.	1.8	6
69	Magnetocrystalline anisotropy of pure magnetic semiconductors of MnGeP ₂ and MnGeAs ₂ : A first-principles study. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 419, 202-209.	2.3	6
70	Simultaneous tuning of the magnetic anisotropy and thermal stability of α -phase Fe ₁₆ N ₂ . <i>Scientific Reports</i> , 2021, 11, 7823.	3.3	6
71	Electronic structure of the Mo(001) surface. <i>Physical Review B</i> , 1993, 48, 4755-4759.	3.2	5
72	Thickness effect on magnetocrystalline anisotropy of Co/Pd(111) films: A density functional study. <i>Journal of Applied Physics</i> , 2015, 117, 17E105.	2.5	5

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73	First-principles prediction of rare-earth free permanent magnet: FeNi with enhanced magnetic anisotropy and stability through interstitial boron. AIP Advances, 2021, 11, .	1.3	5
74	Enhancing magnetic anisotropy and stability of Fe_{16}N_2 phase by Co and V co-substitution. AIP Advances, 2021, 11, .	1.3	5
75	Rippled surface structure and electronic and magnetic properties of Ni ₃ Al(001). Physical Review B, 2000, 62, 6982-6985.	3.2	4
76	First-principles calculations on electronic structure and magnetism of Mn_2 . Journal of Magnetism and Magnetic Materials, 2006, 304, e477-e479.	2.3	4
77	Electron mediated/enhanced ferromagnetism in a hydrogen-annealed Mn:Ge magnetic semiconductor. Journal of Applied Physics, 2011, 109, 063912.	2.5	4
78	The trapping of N ₂ molecules and the reduction in its bonding length in Ge(001) due to N ₂ + ion implantation. Journal of Applied Physics, 2011, 109, .	2.5	4
79	Ultrafast above-transition-temperature resurrection of spin density wave driven by coherent phonon generation in BaFe ₂ As ₂ . New Journal of Physics, 2014, 16, 043010.	2.9	4
80	Magnetocrystalline anisotropy of 4d/5d transition metals on a Co(0001) surface: A first-principles study. Journal of Applied Physics, 2015, 117, 17A327.	2.5	4
81	Seasonal Pattern of Preterm Births in Korea for 2000–2012. Journal of Korean Medical Science, 2016, 31, 1797.	2.5	4
82	Sulfur-vacancy-dependent geometric and electronic structure of bismuth adsorbed on $\text{Mo}_{2-x}\text{S}_x$. Physical Review B, 2018, 97, .	3.2	4
83	Thermally driven homonuclear-stacking phase of MoS ₂ through desulfurization. Nanoscale, 2019, 11, 11138-11144.	5.6	4
84	Magnetism of the MnPt ₃ (001) Surface: First-Principles Study. Journal of the Korean Physical Society, 2008, 53, 1525-1528.	0.7	4
85	Surface electronic structure and magnetism of NiAs structured MnAs(0001) and MnSb(0001). Journal of Applied Physics, 2007, 101, 09G502.	2.5	3
86	Electronic and magnetic properties of digitally Ti doped InP: A first principles study. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1860-1864.	1.8	3
87	Magnetism and Magnetocrystalline Anisotropy of $\text{Ti}_{1-x}\text{Fe}_x$ Transition Metal Monolayers on Pt(001): A Density-Functional Study. Journal of Nanoscience and Nanotechnology, 2014, 14, 9011-9013.	0.9	3
88	New synthesis of MnSi ₂ thin film and its thermoelectric properties. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	3
89	Electric control of magnetism in low-dimensional magnets on ferroelectric surfaces. AIP Advances, 2017, 7, 055816.	1.3	3
90	First-Principles Prediction of Enhanced Magnetic Anisotropy of $\text{Fe}_{1-x}\text{B}_x\text{N}$ With B and C Impurities. IEEE Transactions on Magnetics, 2021, 57, 1-3.	2.1	3

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91	Magnetism of Co layers Grown on W(001) Surface: Density Functional Study. Journal of the Korean Physical Society, 2010, 56, 1472-1477.	0.7	3
92	Resistivities and magnetoresistances of pure, Co- and V-doped Ge single crystals. Physica Status Solidi (B): Basic Research, 2004, 241, 1518-1520.	1.5	2
93	Oscillatory magnetism of palladium nano-film depending on its film thickness: Density functional study. Journal of Magnetism and Magnetic Materials, 2007, 310, 2262-2264.	2.3	2
94	Electronic origin of the negligible magnetostriction of an electric steel Fe1-xSix alloy: A density-functional study. Journal of Applied Physics, 2012, 111, .	2.5	2
95	Electronic structure and magnetism of various surfaces of the catalytic material Pt3Ni: Density-functional study. Journal of Magnetism and Magnetic Materials, 2013, 339, 89-93.	2.3	2
96	Density functional theory study of the electronic structure and the thermoelectric properties of strained Mn4Si7. Journal of the Korean Physical Society, 2016, 69, 402-405.	0.7	2
97	Magnetism and Magnetocrystalline Anisotropy of CoFe Thin Films: A First-principles Study. Journal of the Korean Magnetics Society, 2014, 24, 35-40.	0.0	2
98	First-principles study on magnetocrystalline anisotropy of cobalt films: hcp vs fcc. Current Applied Physics, 2022, 41, 148-155.	2.4	2
99	ALL-ELECTRON LOCAL-DENSITY DETERMINATION OF THE ELECTRONIC STRUCTURE AND SURFACE ENERGY OF ZR(0001). International Journal of Modern Physics B, 1993, 07, 520-523.	2.0	1
100	MBE growth and magnetic properties of GaSb/MnSb superlattices. , 0, , .		1
101	The electronic structure and magnetism of GdSi2 by first-principles study. Journal of Magnetism and Magnetic Materials, 2006, 304, e31-e33.	2.3	1
102	Analysis of the energy distribution of field electrons from metals and semiconductors. Journal of Vacuum Science & Technology B, 2006, 24, 913.	1.3	1
103	Magneto-transport properties of MnGeP2 ferromagnetic semiconductor. Journal of Magnetism and Magnetic Materials, 2007, 310, 2117-2119.	2.3	1
104	Magnetocrystalline Anisotropy of <>d</><>0</>-Magnetic Material NaN(001) Thin Films: A Density Functional Study. Journal of Nanoscience and Nanotechnology, 2015, 15, 2356-2359.	0.9	1
105	Interface Defect Engineering of MoS ₂ Monolayer: Interface Defect Engineering of a Large- ϵ Scale CVD-grown MoS ₂ Monolayer via Residual Sodium at the SiO ₂ /Si Substrate (Adv. Mater. Interfaces 14/2021). Advanced Materials Interfaces, 2021, 8, 2170080.	3.7	1
106	Introduction to First-principles Study in Magnetism : A Brief Guide to Nonexperts. Journal of the Korean Magnetics Society, 2017, 27, 190-197.	0.0	1
107	Magnetism and Magnetocrystalline Anisotropy of Ni/Fe(001) Surface: A First Principles Study. Journal of the Korean Magnetics Society, 2015, 25, 101-105.	0.0	1
108	Effects of an electrostatic field on the normal and superconducting states of a Mo-C film. Physical Review B, 1995, 51, 3238-3241.	3.2	0

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109	Epitaxial (Mn0.7Cr0.3)2As and (Fe0.7Mn0.3)2As thin films: Structural and magnetic properties. <i>Journal of Magnetism and Magnetic Materials</i> , 2006, 304, e474-e476.	2.3	0
110	581: Estradiol inhibits HIF-1 expression in first trimester villous explant cultures. <i>American Journal of Obstetrics and Gynecology</i> , 2008, 199, S169.	1.3	0
111	780: D6 decoy receptor in preeclampsia. <i>American Journal of Obstetrics and Gynecology</i> , 2009, 201, S280.	1.3	0
112	Magnetism of Asymmetrically Terminated FeRh(001) Thin Films: A First-Principle Study. <i>IEEE Transactions on Magnetics</i> , 2016, 52, 1-3.	2.1	0
113	Inducing and manipulating magnetization in 2D zinc oxide by strain and external voltage. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 145802.	1.8	0
114	Magnetostriction of B2-structured FeX (X = Al, Si, Ni, Ga, Ge, and Sn) Alloys: A First-principles Study. <i>Journal of the Korean Magnetics Society</i> , 2013, 23, 117-121.	0.0	0
115	Magnetism of Pd(111) Thin Films: A First-principles Calculation. <i>Journal of the Korean Magnetics Society</i> , 2016, 26, 1-6.	0.0	0
116	First-principles Calculations on Magnetism of 1H/1T Boundary in Monolayer MoS ₂ . <i>Journal of the Korean Magnetics Society</i> , 2016, 26, 71-75.	0.0	0
117	First Principle Studies on Magnetism and Electronic Structure of Perovskite Structured CoFeX ₃ (X = Tj ETQql 1 0.784314 rgBT /Overl...	0.0	0