

# Ersoy Sasioglu

## List of Publications by Year in descending order

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87  
papers

5,164  
citations

126907

33  
h-index

85541

71  
g-index

91  
all docs

91  
docs citations

91  
times ranked

3499  
citing authors

#	ARTICLE	IF	CITATIONS
1	Strength of Effective Coulomb Interactions in Graphene and Graphite. Physical Review Letters, 2011, 106, 236805.	7.8	453
2	Generalized Slater-Pauling rule for the inverse Heusler compounds. Physical Review B, 2013, 87, .	3.2	335
3	Slater-Pauling behavior in LiMgPdSn-type multifunctional quaternary Heusler materials: Half-metallicity, spin-gapless and magnetic semiconductors. Journal of Applied Physics, 2013, 113, .	2.5	323
4	Half-metallic ferromagnetism in zinc-blendeCaC,SrC, andBaCfrom first principles. Physical Review B, 2007, 75, .	3.2	281
5	Effective Coulomb interaction in transition metals from constrained random-phase approximation. Physical Review B, 2011, 83, .	3.2	272
6	First-principles calculation of the intersublattice exchange interactions and Curie temperatures of the full Heusler alloysNi2MnX(X=Ga,In,Sn,Sb). Physical Review B, 2004, 70, .	3.2	263
7	Exchange interactions and temperature dependence of magnetization in half-metallic Heusler alloys. Physical Review B, 2005, 72, .	3.2	256
8	Role of conduction electrons in mediating exchange interactions in Mn-based Heusler alloys. Physical Review B, 2008, 77, .	3.2	185
9	Search for spin gapless semiconductors: The case of inverse Heusler compounds. Applied Physics Letters, 2013, 102, .	3.3	175
10	Ab initiodesign of half-metallic fully compensated ferrimagnets: The case ofCr2MnZ(Z=P, As, Sb, and) Tj ETQq0 0 0 ggBT /Overlock 10 Tf 148	3.2	148
11	Pressure dependence of the Curie temperature inNi2MnSnHeusler alloy: A first-principles study. Physical Review B, 2005, 71, .	3.2	134
12	Doping ofMn2VAlandMn2VSiHeusler alloys as a route to half-metallic antiferromagnetism. Physical Review B, 2007, 75, .	3.2	131
13	High <i>T</i><i>C</i> half-metallic fully-compensated ferrimagnetic Heusler compounds. Applied Physics Letters, 2011, 99, .	3.3	123
14	Search for half-metallic ferrimagnetism in V-based Heusler alloys Mn2VZ (Z = Al, Ga, In, Si, Ge, Sn). Journal of Physics Condensed Matter, 2006, 18, 2905-2914.	1.8	122
15	First-principles study of exchange interactions and Curie temperatures of half-metallic ferrimagnetic full Heusler alloys Mn2V Z (Z = Al, Ge). Journal of Physics Condensed Matter, 2005, 17, 995-1001.	1.8	99
16	Wannier-function approach to spin excitations in solids. Physical Review B, 2010, 81, .	3.2	83
17	Effect of doping and disorder on the half metallicity of full Heusler alloys. Applied Physics Letters, 2006, 89, 042502.	3.3	82
18	Influence of mixing the low-valent transition metal atoms (Y,â€‰Y*=Cr,â€‰Mn,â€‰Fe) on the properties of the quaternary Co2[Y1âˆ™xYx*]Z (Z=Al,â€‰Ga,â€‰Si,â€‰Ge,â€‰orâ€‰Sn) Heusler compounds. Journal of Applied Physics, 2007, 101, 073910.	2.0	79

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19	Conditions for spin-gapless semiconducting behavior in Mn <sub>2</sub> CoAl inverse Heusler compound. Journal of Applied Physics, 2014, 115, .	2.5	72
20	Doping and disorder in the Co <sub>2</sub> MnAl and Co <sub>2</sub> MnGa half-metallic Heusler alloys. Physical Review B, 2006, 74, .	3.2	71
21	Stability of ferromagnetism in the half-metallic pnictides and similar compounds: a first-principles study. Journal of Physics Condensed Matter, 2005, 17, 3915-3930.	1.8	69
22	First-principles calculations of exchange interactions, spin waves, and temperature dependence of magnetization in inverse-Heusler-based spin gapless semiconductors. Physical Review B, 2015, 91, .	3.2	61
23	Wannier function approach to realistic Coulomb interactions in layered materials and heterostructures. Physical Review B, 2015, 92, .	3.2	55
24	Ab initio calculation of the effective on-site Coulomb interaction parameters for half-metallic magnets. Physical Review B, 2013, 88, .	3.2	54
25	Magnetic phase transition in half-metallic CoMnSb and NiMnSb semi-Heusler alloys upon Cu doping: First-principles calculations. Physical Review B, 2008, 77, .	3.2	53
26	A proposal for an alternative class of spin filter materials: Hybridization-induced high- <i>T</i> <sub>C</sub> ferromagnetic semiconductors CoVXAl (X = Ti, Zr, Hf). Applied Physics Letters, 2013, 103, .	3.3	51
27	Structural-induced antiferromagnetism in Mn-based full Heusler alloys: The case of Ni <sub>2</sub> MnAl. Applied Physics Letters, 2011, 98, 102514.	3.3	47
28	Spin-filter and spin-gapless semiconductors: The case of Heusler compounds. AIP Advances, 2016, 6, .	1.3	47
29	Above-room-temperature ferromagnetism in half-metallic Heusler compounds NiCrP, NiCrSe, NiCrTe, and NiVAs: A first-principles study. Journal of Applied Physics, 2005, 98, 063523.	2.5	43
30	Heisenberg Hamiltonian description of multiple-sublattice itinerant-electron systems: General considerations and applications to NiMnSb and MnAs. Physical Review B, 2007, 76, .	3.2	42
31	Nonzero macroscopic magnetization in half-metallic antiferromagnets at finite temperatures. Physical Review B, 2009, 79, .	3.2	40
32	High- <i>T</i> <sub>C</sub> fully compensated ferrimagnetic semiconductors as spin-filter materials: the case of CrVXAl (X = Ti, Zr, Hf) Heusler compounds. Journal of Physics Condensed Matter, 2014, 26, 086003.	1.8	37
33	Theoretical investigation into the possibility of very large moments in Fe <sub>16</sub> N <sub>2</sub> . Physical Review B, 2012, 86, .	3.2	36
34	Engineering the electronic, magnetic, and gap-related properties of the quinary half-metallic Heusler alloys. Journal of Applied Physics, 2008, 103, .	2.5	33
35	Strength of the Effective Coulomb Interaction at Metal and Insulator Surfaces. Physical Review Letters, 2012, 109, 146401.	7.8	31
36	Interplay of nematic and magnetic orders in FeSe under pressure. Physical Review B, 2017, 95, .	3.2	30

#	ARTICLE	IF	CITATIONS
37	Defect-induced ferrimagnetism in the half-metallic Co <sub>2</sub> CrAl and Co <sub>2</sub> CrSi compounds. Physica Status Solidi - Rapid Research Letters, 2007, 1, 95-97.	2.4	28
38	<i>Ab initio</i> electronic and magnetic properties of half-metallic NiCrSi and NiMnSi Heusler alloys: The role of defects and interfaces. Journal of Applied Physics, 2008, 104, .	2.5	27
39	Ferrimagnetism and antiferromagnetism in half-metallic Heusler alloys. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1036-1039.	1.8	26
40	Proposal for Reconfigurable Magnetic Tunnel Diode and Transistor. ACS Applied Electronic Materials, 2019, 1, 1552-1559.	4.3	25
41	Strength of effective Coulomb interaction in two-dimensional transition-metal halides $MX_2$ and $MX_3$		

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55	Vacancy-induced minority-spin states in half-metallic Heusler alloys. <i>Physica Status Solidi - Rapid Research Letters</i> , 2007, 1, 184-186.	2.4	18
56	Ab-initio investigation of electronic and magnetic properties of the 18-valence-electron fully-compensated ferrimagnetic (CrV)XZ Heusler compounds: A prototype for spin-filter materials. <i>Computational Materials Science</i> , 2015, 110, 77-82.	3.0	18
57	Exchange interactions and Néel temperature of a Fe monolayer on W(001): A first-principles study. <i>Physical Review B</i> , 2006, 73, .	3.2	17
58	Effect of disorder on the magnetic properties of cubic Mn <sub>2</sub> Ru <sub>x</sub> Ga compounds: A first-principles study. <i>Journal of Applied Physics</i> , 2014, 116, 033903.	2.5	16
59	Quasiparticle band structure of the almost-gapless transition-metal-based Heusler semiconductors. <i>Physical Review B</i> , 2016, 93, .	3.2	16
60	High spin polarization in all-3d-metallic Heusler compounds: the case of Fe <sub>2</sub> CrZ and Co <sub>2</sub> CrZ (Z=Sc,Ti,V). <i>Journal Physics D: Applied Physics</i> , 2019, 52, 205003.	2.8	16
61	Design of L21-type antiferromagnetic semiconducting full-Heusler compounds: A first principles DFT+GW study. <i>Journal of Applied Physics</i> , 2017, 121, 053903.	2.5	15
62	Ab initio design of quaternary Heusler compounds for reconfigurable magnetic tunnel diodes and transistors. <i>Physical Review Materials</i> , 2019, 3, .	2.4	15
63	First-Principles Calculation of Electronic Excitations in Solids with SPEX. <i>Zeitschrift Fur Physikalische Chemie</i> , 2010, 224, 357-368.	2.8	14
64	Nonconventional screening of the Coulomb interaction in Fe <sub>x</sub> O <sub>y</sub> clusters: An ab initio study. <i>Physical Review B</i> , 2017, 95, .	3.2	14
65	Atomic Scale Control of Spin Current Transmission at Interfaces. <i>Nano Letters</i> , 2022, 22, 3539-3544.	9.1	14
66	Tuning the magnetic properties of half-metallic semi-Heusler alloys by sp-electron substitution: the case of AuMnSn <sub>1-x</sub> Sb <sub>x</sub> quaternary alloys. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 085003.	2.8	13
67	Ab-initio calculation of effective exchange interactions, spin waves, and Curie temperature in L21- and L12-type local moment ferromagnets. <i>Journal of Materials Science</i> , 2012, 47, 7678-7685.	3.7	13
68	Itinerant G-type antiferromagnetism in D <sub>0</sub> antiferromagnetism in G <sub>0</sub>		

#	ARTICLE	IF	CITATIONS
73	Stability of ferromagnetism against doping in half-metallic alloys. Journal of Applied Physics, 2011, 109, .	2.5	10
74	Electronic Structure Evolution across the Peierls Metal-Insulator Transition in a Correlated Ferromagnet. Physical Review X, 2015, 5, .	8.9	10
75	Cobalt adatoms on graphene: Effects of anisotropies on the correlated electronic structure. Physical Review B, 2018, 97, .	3.2	9
76	Design of half-metallic Heusler-based superlattices with vanishing net magnetization. Journal of Applied Physics, 2013, 113, 043912.	2.5	8
77	Spin Excitations in Solids from Many-Body Perturbation Theory. Topics in Current Chemistry, 2014, 347, 259-301.	4.0	8
78	First-principles investigation of magnetism of U films and U(001)1/Fe(110)3 multilayers. Journal of Physics Condensed Matter, 2006, 18, 4177-4188.	1.8	5
79	First principles design of Ohmic spin diodes based on quaternary Heusler compounds. Applied Physics Letters, 2021, 118, .	3.3	5
80	Effect of correlation and disorder on the spin-wave spectra of $\text{Pd}_2$ , and $\text{Cu}_2$ Physical Review Materials, 2020, 4, .	2.4	5
81	Effects of correlation on the conductivity of a two-dimensional weakly disordered lattice with particle-hole symmetric energy bands: Metal-insulator transition at half filling. Physical Review B, 2002, 66, .	3.2	4
82	Ab initio study of the Coulomb interaction in $\text{Nb}_2$ clusters: Strong on-site versus weak nonlocal screening. Physical Review B, 2018, 97, .	3.2	1
83	Mesoscopic fluctuations of the density of states and conductivity in the middle of the band for disordered lattices. Physical Review B, 2002, 66, .	3.2	1
84	Mean Field Approach to the Correlation Effects on the Density of Electronic States and Conductivity of Disordered Metals. Physica Status Solidi (B): Basic Research, 2002, 229, 1205-1214.	1.5	1
85	Critical behavior of density of states near Fermi energy in low-dimensional disordered metals. Physical Review B, 2009, 79, .	3.2	1
86	Externally controlled and switchable two-dimensional electron gas at the Rashba interface between ferroelectrics and heavy d metals. Physical Review Research, 2021, 3, .	3.6	1
87	Effect of local electron-electron correlation in hydrogen-like impurities in Ge. Physical Review B, 2013, 87, .	3.2	0