

# Alan Goldman

## List of Publications by Year in descending order

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70  
papers

3,846  
citations

136885

32  
h-index

118793

62  
g-index

70  
all docs

70  
docs citations

70  
times ranked

3438  
citing authors

#	ARTICLE	IF	CITATIONS
1	LiV2O4: A Heavy Fermion Transition Metal Oxide. Physical Review Letters, 1997, 78, 3729-3732.	2.9	453
2	Lattice and magnetic instabilities in $\text{CaFe}_2\text{As}_2$ . A single-crystal neutron diffraction study. Physical Review B, 2008, 78, .	2.1	298
3	First-order structural phase transition in $\text{CaFe}_2\text{As}_2$ . Physical Review B, 2008, 78, .	2.1	277
4	Charge order and its connection with Fermi-liquid charge transport in a pristine high-Tc cuprate. Nature Communications, 2014, 5, 5875.	5.8	259
5	Lattice collapse and quenching of magnetism in $\text{CaFe}_2\text{As}_2$ under pressure: A single-crystal neutron and x-ray diffraction investigation. Physical Review B, 2009, 79, .	1.1	164
6	Magnetic order in $\text{BaMn}_2\text{As}_2$ neutron diffraction measurements. Physical Review B, 2009, 80, .	2.1	148
7	Microscopic coexistence of magnetism and superconductivity in $\text{ErNi}_2\text{B}_2\text{C}$ . Nature, 1996, 382, 236-238. Character of the structural and magnetic phase transitions in the parent and electron-doped $\text{BaFe}_2\text{As}_2$ .	13.7	137
8	$\text{BaMn}_2\text{As}_2$ neutron diffraction measurements. Physical Review B, 2009, 80, .	1.1	132
9	Growth of large-grain R-Mg-Zn quasicrystals from the ternary melt (R = Y, Er, Ho, Dy and Tb). The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 77, 1601-1615.	0.6	100
10	Anisotropic Three-Dimensional Magnetism in $\text{CaFe}_2\text{As}_2$ . Physical Review Letters, 2008, 101, 227205.	2.9	90
11	$\text{PtAs}_2$ neutron diffraction measurements. Physical Review B, 2009, 80, .	1.1	89
12	Antiferromagnetic ordering in the absence of structural distortion in $\text{BaPtAs}_2$ liquids. Physical Review B, 2010, 82, .	1.1	87
13	Insitu x-ray investigation of the melting of $\text{Bi-Ca-Cu}$ phases. Applied Physics Letters, 1991, 59, 3640-3642.		86
14	Hedgehog spin-vortex crystal stabilized in a hole-doped iron-based superconductor. Npj Quantum Materials, 2018, 3, .	1.8	85
15	Paramagnetic spin correlations in $\text{CaFe}_2\text{As}_2$ . Stabilization of an ambient-pressure collapsed tetragonal phase in $\text{CaFe}_2\text{As}_2$ .	2.1	84
16	$\text{CaFe}_2\text{As}_2$ neutron diffraction measurements. Physical Review B, 2009, 80, .	1.1	81
17	Using controlled disorder to probe the interplay between charge order and superconductivity in $\text{NbSe}_2$ . Nature Communications, 2018, 9, 2796. Rapid chemical and topological ordering in supercooled liquid $\text{CuZr}$ .	5.8	81
18	$\text{CuZr}$ neutron diffraction measurements. Physical Review B, 2010, 82, .	1.1	75

#	ARTICLE	IF	CITATIONS
19	Crystallographic, electronic, thermal, and magnetic properties of single-crystal SrCo $_{2}$ As $_{2}$ . Physical Review B, 2013, 88, .	1.1	67
20	Local structure of equilibrium and supercooled Ti-Zr-Ni liquids. Physical Review B, 2008, 77, .	1.1	60
21	Magnetic structure of Gd $_{5}$ Ge $_{4}$ . Physical Review B, 2005, 71, .	1.1	59
22	New high temperature furnace for structure refinement by powder diffraction in controlled atmospheres using synchrotron radiation. Review of Scientific Instruments, 1999, 70, 3554-3561.	0.6	51
23	Control of magnetic, nonmagnetic, and superconducting states in annealed CaFe $_{2}$ As $_{2}$ . Physical Review B, 2013, 88, .	1.1	50
24	Vortices in superconducting Ba(Fe $_{0.93}$ Co $_{0.07}$ ) $_{2}$ As $_{2}$ studied via small-angle neutron scattering and Bitter decoration. Physical Review B, 2009, 79, .	1.1	49
25	Crystal and magnetic structure of CaCo $_{2}$ As $_{2}$ . Physical Review B, 2013, 88, .	1.1	47
26	Magnetism in icosahedral quasicrystals: current status and open questions. Science and Technology of Advanced Materials, 2014, 15, 044801.	2.8	46
27	Competition between stripe and checkerboard magnetic instabilities in Mn-doped BaFe $_{2}$ As $_{2}$ . Physical Review B, 2012, 86, .	1.1	44
28	On the growth of icosahedral Al $\epsilon$ -Pd $\epsilon$ -Mn quasicrystals from the ternary melt. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 1673-1684.	0.6	43
29	Inelastic Neutron Scattering Study of a Nonmagnetic Collapsed Tetragonal Phase in Nonsuperconducting CaFe $_{2}$ As $_{2}$ . Evidence of the Impact of Spin Fluctuations on Superconductivity in the Iron-Arsenide Compounds. Physical Review Letters, 2013, 111, 227002.	2.9	43
30	Crystallographic phase transition within the magnetically ordered state of Ce $_{2}$ Fe $_{17}$ . Physical Review B, 2007, 76, .	1.1	36
31	Pressure-induced half-collapsed-tetragonal phase in CaKFe $_{4}$ As $_{8}$ . Physical Review B, 2017, 96, .	1.1	36
32	Synthesis, structure, and properties of tetragonal $\text{CaKFe}_{4}\text{As}_{8}$ . Physical Review B, 2017, 96, .	1.1	36

#	ARTICLE	IF	CITATIONS
37	Magnetic order in GdBiPt studied by x-ray resonant magnetic scattering. Physical Review B, 2011, 84, .	1.1	27
38	Magnetic and transport properties of $R$ -Cd icosahedral quasicrystals. Physical Review B, 2014, 90, .	1.1	27
39	Crystallography and physical properties of $Zr_{80}P_{20}$ and $Zr_{80}Ti_{20}$ . Physical Review B, 2014, 90, .	1.1	26
40	Crystallography and physical properties of $BaCo_2As_2$ , $Ba_{0.94}K_{0.06}Co_2As_2$ , and $Ba_{0.78}K_{0.22}Co_2As_2$ . Physical Review B, 2014, 90, .	1.1	25
41	Colossal positive magnetoresistance in a doped nearly magnetic semiconductor. Physical Review B, 2008, 77, .	1.1	24
42	Electrostatic levitation facility optimized for neutron diffraction studies of high temperature liquids at a spallation neutron source. Review of Scientific Instruments, 2016, 87, 013904.	0.6	22
43	Superelasticity and cryogenic linear shape memory effects of $CaFe_2As_2$ . Nature Communications, 2017, 8, 1083.	5.8	22
44	Effects of Band Filling on Magnetic Structures: The Case of $RNi_2Ge_2$ . Physical Review Letters, 1999, 83, 2817-2820.	2.9	19
45	Magnetic ordering in $EuRh_2As_2$ by x-ray resonant magnetic scattering. Physical Review B, 2009, 79, .		
46	Commensurate antiferromagnetic ordering in $Ba_2Co_2As_2$ . Physical Review B, 2010, 82, .	1.1	18
47	Itinerant G-type antiferromagnetic order in $SrCr_2As_2$ . Physical Review B, 2017, 96, .		
48	Single-crystal neutron diffraction study of short-range magnetic correlations in $Tb_5Co_2$ . Physical Review B, 2009, 80, .	1.1	13
49	Structural study of supercooled liquid silicon. Philosophical Magazine, 2008, 88, 171-179.	0.7	11
50	Collapsed tetragonal phase transition in $LaRu_2P_2$ . Physical Review B, 2017, 96, .	1.1	10
51	X-ray magnetic circular dichroism study of $TbNi_2B_2C$ . Physical Review B, 2001, 64, . Magnetically polarized Ir dopant atoms in superconducting $Ba(Fe_{1-x}Tl_x)_{2-x}As_2$ . Physical Review B, 2015, 92, .	1.1	9
52		1.1	9
53	Spin dynamics near a putative antiferromagnetic quantum critical point in $Cu$ -substituted $BaFe_2As_2$ and its relation to high-temperature superconductivity. Physical Review B, 2015, 92, .		
54	X-ray resonant magnetic scattering and x-ray magnetic circular dichroism branching ratios, $L_3/L_2$ , for heavy rare earths. Journal of Applied Physics, 2005, 97, 10A311.	1.1	8

#	ARTICLE	CITATIONS
55	Localization of Ru in superconducting $\text{Ba}(\text{Fe}_{1-x}\text{Ru}_x)\text{As}_2$ . <i>Physical Review Letters</i> , 2010, 105, 077001. <a href="https://doi.org/10.1103/PhysRevLett.105.077001">https://doi.org/10.1103/PhysRevLett.105.077001</a>	7
56	A neutron diffraction demonstration of long-range magnetic order in the quasicrystal approximant $\text{DyCd}_6$ . <i>AIP Advances</i> , 2019, 9, .	6
57	Circular magnetic x-ray dichroism in rare-earth magnets. <i>Journal of Applied Physics</i> , 1994, 75, 6366-6368.	5
58	Comment on "Dipolar Excitations at the Absorption Edges of the Heavy Rare-Earth Metals". <i>Physical Review Letters</i> , 2009, 102, 129701; discussion 129702.	3
59	Magnetic structure of Nd in $\text{NdFeAsO}$ studied by x-ray resonant magnetic scattering. <i>Physical Review B</i> , 2019, 100, .	3
60	On the growth of icosahedral Al-Pd-Mn quasicrystals from the ternary melt. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1999, 79, 1673-1684.	2
61	Zero field magnetic phase transitions and anomalous low temperature upturn in resistivity of single crystalline $\text{In}_2\text{Te}$ . <i>Journal of Applied Physics</i> , 2010, 107, 09E148.	1
62	Reply to "Comment on 'Rapid chemical and topological ordering in supercooled liquid $\text{Cu}_{46}\text{Zr}_{54}$ '". <i>Physical Review B</i> , 2012, 85, .	1
63	Fe K-edge X-ray resonant magnetic scattering from $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ superconductors. <i>European Physical Journal: Special Topics</i> , 2012, 208, 157-164.	1
64	Complex magnetic ordering in $\text{CeGe}_2$ studied by neutron diffraction. <i>Physical Review B</i> , 2014, 90, .	1
65	Magnetic ordering and structural distortion in a $\text{PrFeAsO}$ single crystal studied by neutron and x-ray scattering. <i>Physical Review B</i> , 2021, 103, .	1
66	Aperiodic order coming of age: from inorganic materials to dynamic protein superstructures. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019, 75, 212-213.	1
67	Crystalline Phases During the Melting of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_x$ . <i>Materials Research Society Symposia Proceedings</i> , 1991, 249, 175.	0
68	Magnetic Structures in $\text{RNi}_2\text{B}_2\text{C}$ (R = Ho, Er) Superconductors. <i>Materials Research Society Symposia Proceedings</i> , 1994, 376, 559.	0
69	HORIZONS IN QUASICRYSTAL RESEARCH. <i>Series on Directions in Condensed Matter Physics</i> , 1999, , 561-601.	0
70	The solidification of $\text{Al-Pd-Mn}$ studied by high-energy X-ray diffraction from electrostatically levitated samples. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2017, 232, 619-627.	0