

Antonio M Dos Santos

List of Publications by Year in descending order

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80
papers

1,987
citations

304743

22
h-index

254184

43
g-index

81
all docs

81
docs citations

81
times ranked

2952
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence for the likely occurrence of magnetoferroelectricity in the simple perovskite, BiMnO ₃ . Solid State Communications, 2002, 122, 49-52.	1.9	332
2	Orbital ordering as the determinant for ferromagnetism in biferroic BiMnO ₃ . Physical Review B, 2002, 66, .	3.2	211
3	Charge ordering and phase competition in the layered perovskite LaSr ₂ Mn ₂ O ₇ . Physical Review B, 2000, 61, 15269-15276.	3.2	110
4	Epitaxial growth and properties of metastable BiMnO ₃ thin films. Applied Physics Letters, 2004, 84, 91-93.	3.3	90
5	<math display="block">\text{determination of crystal structures of the thermoelectric material MgAgSb.} Physical Review B, 2012, 85, .	3.2	86
6	Giant Barocaloric Effect at the Spin Crossover Transition of a Molecular Crystal. Advanced Materials, 2019, 31, e1807334.	21.0	75
7	Large-volume diamond cells for neutron diffraction above 90 GPa. High Pressure Research, 2013, 33, 546-554.	1.2	65
8	Adsorption and molecular siting of CO ₂ , water, and other gases in the superhydrophobic, flexible pores of FMOF-1 from experiment and simulation. Chemical Science, 2017, 8, 3989-4000.	7.4	60
9	Neutron diffraction observations of interstitial protons in dense ice. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10552-10556.	7.1	55
10	Direct observation of symmetrization of hydrogen bond in $\tilde{\Gamma}$ -AlOOH under mantle conditions using neutron diffraction. Scientific Reports, 2018, 8, 15520.	3.3	48
11	Entanglement and Bellâ€™s inequality violation above room temperature in metal carboxylates. Physical Review B, 2009, 79, .	3.2	41
12	Charge disproportionation and the pressure-induced insulatorâ€“metal transition in cubic perovskite PbCrO ₃ . Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1670-1674.	7.1	37
13	Structure and elasticity of phlogopite under compression: Geophysical implications. Physics of the Earth and Planetary Interiors, 2014, 233, 1-12.	1.9	36
14	Characterization of Crystallographic Structures Using Bragg-Edge Neutron Imaging at the Spallation Neutron Source. Journal of Imaging, 2017, 3, 65.	3.0	31
15	Magnetic properties of compounds. Journal of Solid State Chemistry, 2009, 182, 253-258.	2.9	30
16	Pressure-induced lattice collapse in the tetragonal phase of single-crystalline $\text{Fe}_{\frac{3}{2}}\text{Mn}_{\frac{1}{2}}$. Physical Review B, 2009, 80, .	3.2	29
17	Cage occupancies in the high pressure structure H methane hydrate: A neutron diffraction study. Journal of Chemical Physics, 2012, 136, 054502.	3.0	29
18	Dynamic off-centering of Cr ³⁺ and short-range magneto-electric clusters in CdCr ₂ O ₄ . Physical Review B, 2009, 80, .	3.2	28

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19	Soft antiphase tilt of oxygen octahedra in the hybrid improper multiferroic $\text{Ca}_{3.2}\text{O}_{7.2}$. <i>Physical Review B</i> , 2018, 97, .	3.2	27
20	Entanglement temperature in molecular magnets composed of S-spin dimers. <i>Europhysics Letters</i> , 2009, 87, 40008.	2.0	26
21	High-pressure neutron diffraction study on H-D isotope effects in brucite. <i>Physics and Chemistry of Minerals</i> , 2010, 37, 741-749.	0.8	25
22	Emergence of long-range order in sheets of magnetic dimers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14372-14377.	7.1	23
23	Effects of temperature and pressure on phonons in $\text{FeSi}_{1-x}\text{Al}_{x}$. <i>Physical Review B</i> , 2013, 87, .	3.2	22
24	Next-generation diamond cell and applications to single-crystal neutron diffraction. <i>Review of Scientific Instruments</i> , 2018, 89, 092902.	1.3	20
25	Evidence for entanglement at high temperatures in an engineered molecular magnet. <i>Europhysics Letters</i> , 2012, 100, 50001.	2.0	19
26	Temperature and pressure dependence of the Fe-specific phonon density of states in $\text{Ba}_{3.2}\text{Al}_{18}\text{O}_{32}$. <i>Physical Review B</i> , 2010, 81, .	3.2	18
27	Understanding the role played by Fe on the tuning of magnetocaloric effect in $\text{Tb}_5\text{Si}_2\text{Ge}_2$. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	18
28	Structure and stability of an amorphous water-methane mixture produced by cold compression of methane hydrate. <i>Physical Review B</i> , 2012, 86, .	3.2	18
29	Synthesis of Defect Perovskites ($\text{He}_{2-x}\text{Ca}_x\text{ZrF}_6$) by Inserting Helium into the Negative Thermal Expansion Material CaZrF_6 . <i>Journal of the American Chemical Society</i> , 2017, 139, 13284-13287.	13.7	18
30	Radiation attenuation by single-crystal diamond windows. <i>Journal of Applied Crystallography</i> , 2017, 50, 76-86.	4.5	18
31	Giant atomic displacement at a magnetic phase transition in metastable Mn_3O_4 . <i>Physical Review B</i> , 2013, 87, .	3.2	16
32	Pressure-induced collapsed-tetragonal phase in SrCo_2As_2 . <i>Physical Review B</i> , 2015, 92, .	3.2	16
33	Boundaries for martensitic transition of ${}^7\text{Li}$ under pressure. <i>Nature Communications</i> , 2015, 6, 8030.	12.8	16
34	Homometallic ferrimagnetism in the zig-zag chain compound $\text{Na}_2\text{Cu}_5\text{Si}_4\text{O}_{14}$. <i>Physical Review B</i> , 2006, 73, .	3.2	15
35	Tailoring the magnetism of $\text{Tb}_{5-x}\text{Si}_x\text{O}_{14}$. <i>Physical Review B</i> , 2006, 73, .	3.2	15
36	Heptacopper(II) and dicopper(II)-adenine complexes: synthesis, structural characterization, and magnetic properties. <i>Journal of Coordination Chemistry</i> , 2015, 68, 2770-2787.	2.2	14

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37	Carboxylate-based molecular magnet: One path toward achieving stable quantum correlations at room temperature. <i>Europhysics Letters</i> , 2016, 113, 40004.		2.0	14
38	Singlet ground state determined by isolated Cu ²⁺ -chain topology in microporous Na ₂ Cu ₂ Si ₄ O ₁₁ ·2H ₂ O and Na ₂ Cu ₂ Si ₄ O ₁₁ . <i>Physical Review B</i> , 2005, 72, .		3.2	13
39	Photoluminescence of lanthanide NASICONs: Na ₅ LnSi ₄ O ₁₂ , Ln = Eu, Tb. <i>Journal of Materials Chemistry</i> , 2006, 16, 3139.		6.7	13
40	Synthesis, crystal structure and magnetic characterization of Na ₂ Cu ₅ (Si ₂ O ₇) ₂ : An inorganic ferrimagnetic chain. <i>Journal of Solid State Chemistry</i> , 2007, 180, 16-21.		2.9	12
41	Local structural motifs and extended-range order in liquid and solid ammonia under pressure. <i>Physical Review B</i> , 2012, 85, .		3.2	12
42	Deuterium Isotope Effects in Polymerization of Benzene under Pressure. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1856-1864.		4.6	12
43	Neutron diffraction and electrical transport studies on magnetic ordering in terbium at high pressures and low temperatures. <i>High Pressure Research</i> , 2013, 33, 555-562.		1.2	11
44	Novel multiferroic state and ME enhancement by breaking the AFM frustration in LuMn _{1-x} O ₃ . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 1335-1341.		2.8	10
45	Peculiarities of the phase transformation dynamics in bulk FeRh based alloys from magnetic and structural measurements. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 522, 167560.		2.3	10
46	Pressure-induced tuning of a magnetic phase separation in Nd _{0.53} Sr _{0.47} MnO ₃ . <i>Physical Review B</i> , 2012, 86, .		3.2	9
47	Novel alkaline earth copper germanates with ferro and antiferromagnetic S=1/2 chains. <i>Journal of Solid State Chemistry</i> , 2013, 198, 39-44.		2.9	9
48	Anomalous bulk modulus in vanadate spinels. <i>Physical Review B</i> , 2016, 94, .		3.2	9
49	Spin state and magnetic ordering of half-doped $\text{Ca}_{1-x}\text{Mn}_x\text{O}$. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 422, 197-203.		2.3	9
50	Magnetic ordering in rare earth metal dysprosium revealed by neutron diffraction studies in a large-volume diamond anvil cell. <i>High Pressure Research</i> , 2019, 39, 588-597.		1.2	8
51	Neutron diffraction study of magnetic ordering in high pressure phases of rare earth metal holmium. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 507, 166843.		2.3	8
52	Decoupling Lattice and Magnetic Instabilities in Frustrated CuMnO ₂ . <i>Inorganic Chemistry</i> , 2021, 60, 6004-6015.		4.0	7
53	3D scanning and 3D printing AlSi10Mg single crystal mounts for neutron scattering. <i>Review of Scientific Instruments</i> , 2020, 91, 053902.		1.3	7
54	$\text{Ca}_{1-x}\text{Mn}_x\text{O}$ structural path: Following the negative thermal expansion at the local scale. <i>Physical Review B</i> , 2020, 102, .		3.2	7

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55	Pressure-induced magnetic transition in FeTe _{0.6} Se ₅ . High-Pressure Single-Crystal Neutron Scattering Study of Magnetic and Fe Vacancy Orders in (Tl,Rb) ₂ Fe ₄ Se ₅ Superconductor. Chinese Physics Letters, 2014, 31, 127401.	3.2	6
56	Chemical disorder determines the deviation of the Slater-Pauling rule for Fe ₂ MnSi-based Heusler alloys: evidences from neutron diffraction and density functional theory. Journal of Physics Condensed Matter, 2016, 28, 476002.	1.8	6
57	Pressure tuning of structure, superconductivity, and novel magnetic order in the Ce-underdoped electron-doped cuprate $T_{x}Mn_{1-x}O$. Physical Review B, 2017, 96, .	3.2	6
58	Synthesis, structure and magnetic behaviour of mixed metal leucophosphite. Journal of Solid State Chemistry, 2008, 181, 1330-1336.	2.9	5
59	On single-crystal neutron-diffraction in DACs: quantitative structure refinement of light elements on SNAP and TOPAZ. High Pressure Research, 2020, 40, 339-357.	1.2	5
60	Anomalous breakdown of Bloch's rule in the Mott-Hubbard insulator MnTe ₂ . Physical Review B, 2015, 91, .	1.6	4
61	Pressure Induced Topological Quantum Phase Transition in Weyl Semimetal Td-MoTe ₂ . Journal of the Physical Society of Japan, 2020, 89, 094707.	2.3	4
62	Magnetic structure of antiferromagnetic high-pressure phases of dysprosium. Journal of Magnetism and Magnetic Materials, 2022, 545, 168749.	1.8	3
63	Pressure-Induced Insulator-Metal Transition in Two-Dimensional Mott Insulator NiPS ₃ . Journal of the Physical Society of Japan, 2021, 90, .	3.2	3
64	Neutron diffraction and electrical transport studies on the incommensurate magnetic phase transition in holmium at high pressures. Journal of Physics Condensed Matter, 2012, 24, 216003.	4.0	3
65	Pressure-induced structural phase transition in CeNi: X-ray and neutron scattering studies and first-principles calculations. Physical Review B, 2015, 92, .	1.8	2
66	Thermal Expansion and Response to Pressure of Double-ReO ₃ -Type Fluorides NaM ^V F ₆ (M = Nb, Ta). Inorganic Chemistry, 2020, 59, 13979-13987.	5.5	2
67	Specific heat of clustered low dimensional magnetic systems. Journal of Physics Condensed Matter, 2007, 19, 446203.	3.6	2
68	Spectroscopic studies of an europium(III) tris- ℓ^2 -diketonate complex bearing a pyrazolylpyridine ligand. Journal of Alloys and Compounds, 2008, 451, 344-346.	0.7	1
69	Structure determination of oxamic acid from laboratory powder X-Ray diffraction data and energy minimization by DFT-D. Journal of Molecular Structure, 2019, 1177, 310-316.	0.3	1
70	Charge-ordering in thin films of bilayered rare earth manganates. Solid State Sciences, 2000, 2, 651-655.	0.3	1
71	Immobilisation of Ferricinium Cation into ETS-10 by Ion Exchange under Microwave Irradiation. Materials Science Forum, 0, 587-588, 453-457.	0.7	1

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73	Reply to Zayed: Interplay of magnetism and structure in the Shastry-Sutherland model. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E383-E384.		7.1	1
74	Density driven structural transformations in amorphous semiconductor clathrates. <i>Applied Physics Letters</i> , 2015, 106, 021911.		3.3	1
75	Pressure effects on spin-lattice coupling of CdCr ₂ S ₄ . <i>Journal of Alloys and Compounds</i> , 2017, 715, 83-90.		5.5	1
76	Compression mechanisms of ferroelectric PbTiO ₃ via high pressure neutron scattering. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 435702.		1.8	1
77	Pressure Dependent Diffraction and Spectroscopy of a Dimerized Antiferromagnet. <i>Journal of the Physical Society of Japan</i> , 2011, 80, SB005.		1.6	0
78	Synthesis, characterization and magnetic properties of a manganese (II) silicate containing frustrated S=5/2 zigzag ladders. <i>Journal of Solid State Chemistry</i> , 2014, 211, 130-135.		2.9	0
79	High pressure neutron powder diffraction study of Fe _{1-x} Cr _x with and without hydrogen exposure. <i>Hyperfine Interactions</i> , 2015, 231, 29-36.		0.5	0
80	Insights on the origin of the TbGe magnetocaloric effect. <i>Physica B: Condensed Matter</i> , 2017, 513, 72-76.		2.7	0