

Juan A Sans

List of Publications by Year in descending order

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130
papers

2,822
citations

186265

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docs citations

131
times ranked

3686
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Pressure Synthesis of In^{2+} - and In^{3+} - Ga_2S_3 -Like Structures in Ga_2S_3 . <i>Chemistry of Materials</i> , 2022, 34, 6068-6086.	6.7	3
2	Experimental and theoretical study of dense YBO_3 and the influence of non-hydrostaticity. <i>Journal of Alloys and Compounds</i> , 2021, 850, 156562.	5.5	5
3	Structural, vibrational and electronic properties of In^{2+} - Ga_2S_3 under compression. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 6841-6862.	2.8	8
4	Transition path to a dense efficient-packed post-delafoosite phase. Crystal structure and evolution of the chemical bonding. <i>Journal of Alloys and Compounds</i> , 2021, 867, 159012.	5.5	1
5	GdBO_3 and YBO_3 crystals under compression. <i>Journal of Alloys and Compounds</i> , 2021, 866, 158962.	5.5	3
6	Lattice dynamics study of $(\text{Gd}_{1-x}\text{Y}_x)_2\text{O}_3$ ($x=0.11$) at high pressure. <i>Journal of Alloys and Compounds</i> , 2021, 871, 159525.	5.5	3
7	Unveiling the role of the lone electron pair in sesquioxides at high pressure: compressibility of In^{2+} - Sb_2O_3 . <i>Dalton Transactions</i> , 2021, 50, 5493-5505.	3.3	7
8	High-pressure Raman investigation of high index facets bounded In^{2+} - Fe_2O_3 pseudocubic crystals. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 085701.	1.8	0
9	Combined Experimental and Theoretical Studies: Lattice-Dynamical Studies at High Pressures with the Help of Ab Initio Calculations. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 1283.	2.0	6
10	Orpiment under compression: metavalent bonding at high pressure. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 3352-3369.	2.8	20
11	Experimental and Theoretical Study of SbPO_4 under Compression. <i>Inorganic Chemistry</i> , 2020, 59, 287-307.	4.0	14
12	High-pressure characterization of multifunctional CrVO_4 . <i>Journal of Physics Condensed Matter</i> , 2020, 32, 385403.	1.8	12
13	Structural and vibrational behavior of cubic $\text{Cu}_{1.80(3)}\text{Se}$ cuprous selenide, berzelianite, under compression. <i>Journal of Alloys and Compounds</i> , 2020, 830, 154646.	5.5	1
14	Characterization and Decomposition of the Natural van der Waals SnSb_2Te_4 under Compression. <i>Inorganic Chemistry</i> , 2020, 59, 9900-9918.	4.0	31
15	Structural and Lattice-Dynamical Properties of Tb_2O_3 under Compression: A Comparative Study with Rare Earth and Related Sesquioxides. <i>Inorganic Chemistry</i> , 2020, 59, 9648-9666.	4.0	26
16	PrVO_4 under High Pressure: Effects on Structural, Optical, and Electrical Properties. <i>Inorganic Chemistry</i> , 2020, 59, 18325-18337.	4.0	8
17	Hydrolytic stability and biocompatibility on smooth muscle cells of polyethylene glycol- ϵ -polycaprolactone-based polyurethanes. <i>Journal of Materials Research</i> , 2020, 35, 3276-3285.	2.6	4
18	Structural Characterization of Auophilic Gold(I) Iodide under High Pressure. <i>Inorganic Chemistry</i> , 2019, 58, 10665-10670.	4.0	15

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19	Phase stability and electronic structure of iridium metal at the megabar range. Scientific Reports, 2019, 9, 8940.	3.3	17
20	Demonstration of the parallel axis theorem through a smartphone. Physics Teacher, 2019, 57, 340-341.	0.3	8
21	Study of the Degree of Cure through Thermal Analysis and Raman Spectroscopy in Composite-Forming Processes. Materials, 2019, 12, 3991.	2.9	8
22	Pressure-Induced Phase Transitions in Sesquioxides. Crystals, 2019, 9, 630.	2.2	21
23	Polymorphism in sesquioxides of late Group 15: work under pressure. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, e275-e275.	0.1	0
24	Experimental and Theoretical Study of Bi ₂ O ₂ Se Under Compression. Journal of Physical Chemistry C, 2018, 122, 8853-8867.	3.1	46
25	Stability and nature of the volume collapse of $\hat{\mu}$ -Fe ₂ O ₃ under extreme conditions. Nature Communications, 2018, 9, 4554.	12.8	28
26	VIRTUAL LABORATORY ON WAVE REFLECTION IN CONIC CURVES. , 2018, , .		0
27	SnS Thin Films Prepared by Chemical Spray Pyrolysis at Different Substrate Temperatures for Photovoltaic Applications. Journal of Electronic Materials, 2017, 46, 1714-1719.	2.2	24
28	Structural and vibrational properties of corundum-type In ₂ O ₃ nanocrystals under compression. Nanotechnology, 2017, 28, 205701.	2.6	11
29	Pressure-Driven Isostructural Phase Transition in InNbO ₄ : In Situ Experimental and Theoretical Investigations. Inorganic Chemistry, 2017, 56, 5420-5430.	4.0	29
30	Determining the efficiency of optical sources using a smartphone's ambient light sensor. European Journal of Physics, 2017, 38, 025301.	0.6	11
31	Study of the orpiment and anorpiment phases of As ₂ S ₃ under pressure. Journal of Physics: Conference Series, 2017, 950, 042018.	0.4	4
32	X-ray nanoimaging of Nd ³⁺ optically active ions embedded in Sr _{0.5} Ba _{0.5} Nb ₂ O ₆ nanocrystals. Optical Materials Express, 2017, 7, 2424.	3.0	4
33	A 3D VIRTUAL LAB ON VECTOR OPERATIONS AND THEIR PROPERTIES. INTED Proceedings, 2017, , .	0.0	0
34	LINEAR MOMENTUM CONSERVATION: A VIRTUAL LAB EXPERIENCE. EDULEARN Proceedings, 2017, , .	0.0	1
35	A VIRTUAL LAB ON MECHANICAL AND ELECTRICAL COMPOSITION OF HARMONIC OSCILLATIONS OF THE SAME FREQUENCY. , 2017, , .		0
36	InBO ₃ and ScBO ₃ at high pressures: An ab initio study of elastic and thermodynamic properties. Journal of Physics and Chemistry of Solids, 2016, 98, 198-208.	4.0	8

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37	Vibrational and elastic properties of As ₄ O ₆ and As ₄ O ₆ ·2He at high pressures: Study of dynamical and mechanical stability. Journal of Applied Physics, 2016, 120, .	2.5	8
38	Structural, Vibrational, and Electronic Study of Sb ₂ S ₃ at High Pressure. Journal of Physical Chemistry C, 2016, 120, 10547-10558.	3.1	73
39	Structural, Vibrational, and Electronic Study of $\hat{\Gamma}$ -As ₂ Te ₃ under Compression. Journal of Physical Chemistry C, 2016, 120, 19340-19352.	3.1	37
40	Structural, vibrational, and electrical study of compressed BiTeBr. Physical Review B, 2016, 93, .	3.2	25
41	Pressure-induced phase transition and band-gap collapse in the wide-band-gap semiconductor InTa ₂ O ₄ . Ordered helium trapping and bonding in compressed arsenolite: Synthesis of		39
42	mathvariant="normal">A</math> mathvariant="normal">S</math> mathvariant="normal">O</math> mathvariant="normal">B</math> mathvariant="normal">I</math> mathvariant="normal">T</math> mathvariant="normal">e</math> mathvariant="normal">H</math> e</math>	3.2	29
43	mathvariant="normal">B</math> mathvariant="normal">I</math> mathvariant="normal">T</math> e</math> under compression: Optical and elastic properties and electron density topology analysis. Physical Review B,	3.2	16
44	Arsenolite: a quasi-hydrostatic solid pressure-transmitting medium. Journal of Physics Condensed Matter, 2016, 28, 475403.	1.8	3
45	Structural and electrical study of the topological insulator SnBi ₂ Te ₄ at high pressure. Journal of Alloys and Compounds, 2016, 685, 962-970.	5.5	28
46	Pressure-induced phase transformation in zircon-type orthovanadate SmVO ₄ from experiment and theory. Journal of Physics Condensed Matter, 2016, 28, 035402.	1.8	25
47	Pressure-induced amorphization of YVO ₄ :Eu ³⁺ nanoboxes. Nanotechnology, 2016, 27, 025701.	2.6	19
48	VIRTUAL LABORATORY FOR STUDYING AND UNDERSTANDING THE RELATIONSHIPS AMONG PHYSICAL QUANTITIES. , 2016, , .		0
49	SMARTPHONE FOR TEACHING EXPERIMENTAL PHYSICS. , 2016, , .		0
50	Synthesis and High-Pressure Study of Corundum-Type In ₂ O ₃ . Journal of Physical Chemistry C, 2015, 119, 29076-29087.	3.1	23
51	Experimental and theoretical study of $\hat{\Gamma}$ -Eu ₂ (MoO ₄) ₃ under compression. Journal of Physics Condensed Matter, 2015, 27, 465401.	1.8	5
52	Pressure-induced phase transition in hydrothermally grown ZnO nanoflowers investigated by Raman and photoluminescence spectroscopy. Journal of Physics Condensed Matter, 2015, 27, 385401.	1.8	5
53	Crystal Structure of Sinalite MgAlBO ₄ under High Pressure. Journal of Physical Chemistry C, 2015, 119, 6777-6784.	3.1	5
54	High-pressure structural phase transition in MnWO ₄ Physical Review B, 2015, 91, .	3.2	16

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55	Coordinated Microanalyses of Seven Particles of Probable Interstellar Origin from the Stardust Mission.. Microscopy and Microanalysis, 2014, 20, 1692-1693.	0.4	9
56	High-pressure structural and elastic properties of Ti2O3. Journal of Applied Physics, 2014, 116, .	2.5	20
57	Structural and Vibrational Study of Pseudocubic CdIn ₂ Se ₄ under Compression. Journal of Physical Chemistry C, 2014, 118, 26987-26999.	3.1	7
58	Stardust Interstellar Preliminary Examination X: Impact speeds and directions of interstellar grains on the Stardust dust collector. Meteoritics and Planetary Science, 2014, 49, 1680-1697.	1.6	24
59	Stardust Interstellar Preliminary Examination IX: High-speed interstellar dust analog capture in Stardust flight spare aerogel. Meteoritics and Planetary Science, 2014, 49, 1666-1679.	1.6	19
60	Stardust Interstellar Preliminary Examination XI: Identification and elemental analysis of impact craters on Al foils from the Stardust Interstellar Dust Collector. Meteoritics and Planetary Science, 2014, 49, 1698-1719.	1.6	16
61	Stardust Interstellar Preliminary Examination VIII: Identification of crystalline material in two interstellar candidates. Meteoritics and Planetary Science, 2014, 49, 1645-1665.	1.6	12
62	Stardust Interstellar Preliminary Examination VII: Synchrotron X-ray fluorescence analysis of six Stardust interstellar candidates measured with the Advanced Photon Source 2-Å microprobe. Meteoritics and Planetary Science, 2014, 49, 1626-1644.	1.6	13
63	Stardust Interstellar Preliminary Examination VI: Quantitative elemental analysis by synchrotron X-ray fluorescence nanoimaging of eight impact features in aerogel. Meteoritics and Planetary Science, 2014, 49, 1612-1625.	1.6	12
64	Structural and elastic properties of defect chalcopyrite HgGa2S4 under high pressure. Journal of Alloys and Compounds, 2014, 583, 70-78.	5.5	32
65	Compressibility and Structural Stability of Nanocrystalline TiO ₂ Anatase Synthesized from Freeze-Dried Precursors. Inorganic Chemistry, 2014, 53, 11598-11603.	4.0	28
66	Stardust Interstellar Preliminary Examination V: XRF analyses of interstellar dust candidates at ESRF ID 13. Meteoritics and Planetary Science, 2014, 49, 1594-1611.	1.6	12
67	Final reports of the Stardust Interstellar Preliminary Examination. Meteoritics and Planetary Science, 2014, 49, 1720-1733.	1.6	29
68	Stardust Interstellar Preliminary Examination II: Curating the interstellar dust collector, picokeystones, and sources of impact tracks. Meteoritics and Planetary Science, 2014, 49, 1522-1547.	1.6	18
69	Stardust Interstellar Preliminary Examination III: Infrared spectroscopic analysis of interstellar dust candidates. Meteoritics and Planetary Science, 2014, 49, 1548-1561.	1.6	12
70	Stardust Interstellar Preliminary Examination I: Identification of tracks in aerogel. Meteoritics and Planetary Science, 2014, 49, 1509-1521.	1.6	16
71	Stardust Interstellar Preliminary Examination IV: Scanning transmission X-ray microscopy analyses of impact features in the Stardust Interstellar Dust Collector. Meteoritics and Planetary Science, 2014, 49, 1562-1593.	1.6	18
72	<i>Pbca</i> -Type In ₂ O ₃ : The High-Pressure Post-Corundum phase at Room Temperature.. Journal of Physical Chemistry C, 2014, 118, 20545-20552.	3.1	27

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73	Evidence for interstellar origin of seven dust particles collected by the Stardust spacecraft. <i>Science</i> , 2014, 345, 786-791.	12.6	152
74	Isostructural Second-Order Phase Transition of Bi_2O_3 at High Pressures: An Experimental and Theoretical Study. <i>Journal of Physical Chemistry C</i> , 2014, 118, 23189-23201.	3.1	59
75	Structural and Vibrational Properties of CdAl_2S_4 under High Pressure: Experimental and Theoretical Approach. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15363-15374.	3.1	8
76	Compressibility Systematics of Calcite-Type Borates: An Experimental and Theoretical Structural Study on ABO_3 (A = Al, Sc, Fe, and In). <i>Journal of Physical Chemistry C</i> , 2014, 118, 4354-4361.	3.1	22
77	Pressure effects on the vibrational properties of Bi_2O_3 : an experimental and theoretical study. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 225401.	1.8	21
78	Effect of pressure on La_2WO_9 with a modulated scheelite-type structure. <i>Physical Review B</i> , 2014, 89, .	3.2	9
79	Investigation of lattice dynamical and dielectric properties of MgO under high pressure by means of mid- and far-infrared spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 505902.	1.8	10
80	Vibrational study of HgGa_2S_4 under high pressure. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	23
81	Structural study of Bi_2O_3 under pressure. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 475402.	1.8	42
82	Order-disorder processes in adamantine ternary ordered vacancy compounds. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 1496-1504.	1.5	12
83	Phase Behavior of Ag_2CrO_4 under Compression: Structural, Vibrational, and Optical Properties. <i>Journal of Physical Chemistry C</i> , 2013, 117, 12239-12248.	3.1	23
84	Oscillations studied with the smartphone ambient light sensor. <i>European Journal of Physics</i> , 2013, 34, 1349-1354.	0.6	62
85	Iron oxidation state in garnet from a subduction setting: a micro-XANES and electron microprobe ($\mu\text{-XRF}$) comparative study. <i>Journal of Analytical Atomic Spectrometry</i> , 2012, 27, 1725.	3.0	27
86	High-pressure lattice dynamical study of bulk and nanocrystalline In_2O_3 . <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	55
87	Compressibility and structural stability of ultra-incompressible bimetallic interstitial carbides and nitrides. <i>Physical Review B</i> , 2012, 85, .	3.2	17
88	Compression of Silver Sulfide: X-ray Diffraction Measurements and Total-Energy Calculations. <i>Inorganic Chemistry</i> , 2012, 51, 5289-5298.	4.0	44
89	$\text{p} < \text{d}$ and $\text{ns} < \text{ni}$	3.2	41
90	Probing Quantum Confinement within Single Core-Multishell Nanowires. <i>Nano Letters</i> , 2012, 12, 5829-5834.	9.1	34

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91	Complex high-pressure polymorphism of barium tungstate. Physical Review B, 2012, 86, .	3.2	66
92	Status of the hard X-ray microprobe beamline ID22 of the European Synchrotron Radiation Facility. Journal of Synchrotron Radiation, 2012, 19, 10-18.	2.4	95
93	X-ray excited optical luminescence imaging of InGaN nano-LEDs. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 628-630.	0.8	2
94	Spatially resolved X-ray excited optical luminescence. Nuclear Instruments & Methods in Physics Research B, 2012, 284, 36-39.	1.4	34
95	Study of metallic pieces from the Andalusian baroque period with micro X-ray diffraction and micro X-ray fluorescence. Diamond Light Source Proceedings, 2011, 1, .	0.1	1
96	Direct observation of elemental segregation in InGaN nanowires by X-ray nanoprobe. Physica Status Solidi - Rapid Research Letters, 2011, 5, 95-97.	2.4	13
97	Absence of ferromagnetism in single-phase wurtzite Zn _{1-x} MnxO polycrystalline thin films. Journal of Applied Physics, 2010, 108, 073922.	2.5	14
98	Dependence Of Electrically Active Centers Content With The Growth Temperature In Heavily Ga-doped ZnO Thin Films: Correlation Between Optical, Structural And Transport Properties. , 2010, , .		1
99	Inversion domain boundaries in GaN studied by X-ray microprobe. Physica Status Solidi - Rapid Research Letters, 2010, 4, 31-33.	2.4	0
100	Chemical effects of band filling and band-gap renormalization on heavily doped ZnO:M _{III} (Al, Ga) Tj ETQq0 0 0 rgBT /Ovrlock 10 T		
101	Charge-transfer absorption band in Zn _{1-x} MxO (M: Co, Mn) investigated by means of photoconductivity, Ga doping, and optical measurements under pressure. Applied Physics Letters, 2010, 96, 241902.	3.3	17
102	Thermal instability of implanted Mn ions in ZnO. Journal of Applied Physics, 2010, 107, 023507.	2.5	7
103	X-ray linear dichroism of defects in GaN:Mg using hard x-ray nanoprobe. Applied Physics Letters, 2009, 95, 151909.	3.3	4
104	Study of metallic components of historical organ pipes using synchrotron radiation X-ray microfluorescence imaging and grazing incidence X-ray diffraction. Analytical and Bioanalytical Chemistry, 2009, 395, 1969-1975.	3.7	10
105	Synchrotron study of oxygen depletion in a Bi-2212 whisker annealed at 363â€¦K. Journal of Synchrotron Radiation, 2009, 16, 813-817.	2.4	15
106	Micro-photoluminescence spectroscopy on metal precipitates in silicon. Physica Status Solidi - Rapid Research Letters, 2009, 3, 230-232.	2.4	47
107	X-ray excited optical luminescence from crystalline silicon. Physica Status Solidi - Rapid Research Letters, 2009, 3, 275-277.	2.4	9
108	Chemical effects on the optical band-gap of heavily doped<math display="inline"><mml:mrow><mml:mtext>ZnO</mml:mtext></mml:mrow></math> xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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109	Fluorescence X-ray micro-spectroscopy activities at ESRF. Journal of Physics: Conference Series, 2009, 186, 012014.	0.4	3
110	Study of the bandgap renormalization in Ga-doped ZnO films by means of optical absorption under high pressure and photoelectron spectroscopy. Superlattices and Microstructures, 2008, 43, 362-367.	3.1	13
111	X-ray absorption in GaGdN: A study of local structure. Applied Physics Letters, 2008, 93, 021916.	3.3	24
112	Thermal instability of electrically active centers in heavily Ga-doped ZnO thin films: X-ray absorption study of the Ga-site configuration. Applied Physics Letters, 2007, 91, 221904.	3.3	26
113	High Pressure X-ray Absorption Spectroscopy on $Zn_{1-x}Mn_xO$ ($x=0.25$ and $x=0.05$) at the Mn K Edge. AIP Conference Proceedings, 2007, . .	0.4	0
114	Tetrahedral versus octahedral Mn site coordination in wurtzite and rocksalt $Zn_{1-x}Mn_xO$ investigated by means of XAS experiments under high pressure. Superlattices and Microstructures, 2007, 42, 251-254.	3.1	12
115	Pressure dependence of photoluminescence of InAs/InP self-assembled quantum wires. Physica Status Solidi (B): Basic Research, 2007, 244, 59-64.	1.5	1
116	Pressure dependence of the optical properties of wurtzite and rock-salt $Zn_{1-x}Co_xO$ thin films. Physica Status Solidi (B): Basic Research, 2007, 244, 407-412.	1.5	7
117	Optical, X-ray absorption and photoelectron spectroscopy investigation of the Co site configuration in $Zn_{1-x}Co_xO$ films prepared by pulsed laser deposition. Superlattices and Microstructures, 2007, 42, 226-230.	3.1	12
118	Correlation between optical and transport properties of Ga-doped ZnO thin films prepared by pulsed laser deposition. Superlattices and Microstructures, 2006, 39, 282-290.	3.1	42
119	X-ray absorption of $Zn_{1-x}Co_xO$ thin films: A local structure study. Applied Physics Letters, 2006, 89, 061906.	3.3	32
120	High conductivity of Ga-doped rock-salt ZnO under pressure: Hint on deep-ultraviolet-transparent conducting oxides. Applied Physics Letters, 2006, 88, 011910.	3.3	59
121	Spin-exchange interaction in ZnO-based quantum wells. Physical Review B, 2006, 74, .	3.2	26
122	Local environment of a diluted element under high pressure: $Zn_{1-x}Mn_xO$ probed by fluorescence x-ray absorption spectroscopy. Applied Physics Letters, 2006, 89, 231904.	3.3	20
123	Investigation of Mn site configuration in wurtzite and rock-salt $Zn_{1-x}Mn_xO$ by means of XAS experiments under pressure. Acta Crystallographica Section A: Foundations and Advances, 2006, 62, s262-s262.	0.3	0
124	Optical properties of wurtzite and rock-salt ZnO under pressure. Microelectronics Journal, 2005, 36, 928-932.	2.0	44
125	Structural evolution of the $CuGaO_2$ delafossite under high pressure. Physical Review B, 2004, 69, .	3.2	64
126	Optical properties and structural phase transitions in $Mg_xZn_{1-x}O$ under hydrostatic pressure. High Pressure Research, 2004, 24, 119-127.	1.2	15

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127	Optical properties of thin films of ZnO prepared by pulsed laser deposition. Thin Solid Films, 2004, 453-454, 251-255.	1.8	76
128	Electronic structure and optical properties of CdTe rock-salt high pressure phase. Physica Status Solidi (B): Basic Research, 2003, 235, 509-513.	1.5	8
129	Optical properties and electronic structure of rock-salt ZnO under pressure. Applied Physics Letters, 2003, 83, 278-280.	3.3	158
130	Diseño y evaluación de un laboratorio virtual de vectores en 3D. , 0, , .		0