

Juan A Sans

List of Publications by Year in descending order

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130
papers

2,822
citations

186265

28
h-index

223800

46
g-index

131
all docs

131
docs citations

131
times ranked

3686
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical properties and electronic structure of rock-salt ZnO under pressure. Applied Physics Letters, 2003, 83, 278-280.	3.3	158
2	Evidence for interstellar origin of seven dust particles collected by the Stardust spacecraft. Science, 2014, 345, 786-791.	12.6	152
3	Chemical effects on the optical band gap of heavily doped ZnO $\text{ZnO} \cdot M$		

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

#	ARTICLE	IF	CITATIONS
19	Pressure-induced phase transition and band-gap collapse in the wide-band-gap semiconductor Physical Review B, 2016, 93, .	3.2	41
20	Structural, Vibrational, and Electronic Study of $\text{InTaAs}_2\text{Te}_3$ under Compression. Journal of Physical Chemistry C, 2016, 120, 19340-19352.	3.1	37
22	Probing Quantum Confinement within Single Core-Shell Multishell Nanowires. Nano Letters, 2012, 12, 5829-5834.	9.1	34
23	Spatially resolved X-ray excited optical luminescence. Nuclear Instruments & Methods in Physics Research B, 2012, 284, 36-39.	1.4	34
24	X-ray absorption of $\text{Zn}_{1-x}\text{Co}_x\text{O}$ thin films: A local structure study. Applied Physics Letters, 2006, 89, 061906.	3.3	32
25	Structural and elastic properties of defect chalcopyrite HgGa_2S_4 under high pressure. Journal of Alloys and Compounds, 2014, 583, 70-78.	5.5	32
26	Characterization and Decomposition of the Natural van der Waals SnSb_2Te_4 under Compression. Inorganic Chemistry, 2020, 59, 9900-9918.	4.0	31
27	Final reports of the Stardust Interstellar Preliminary Examination. Meteoritics and Planetary Science, 2014, 49, 1720-1733.	1.6	29
28	Ordered helium trapping and bonding in compressed arsenolite: Synthesis of $\text{As}_4\text{S}_6\text{O}_6$ Physical Review B, 2016, 93, .	3.2	29
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	Compressibility and Structural Stability of Nanocrystalline TiO_2 Anatase Synthesized from Freeze-Dried Precursors. Inorganic Chemistry, 2014, 53, 11598-11603.	4.0	28
31	Structural and electrical study of the topological insulator SnBi_2Te_4 at high pressure. Journal of Alloys and Compounds, 2016, 685, 962-970.	5.5	28
32	Stability and nature of the volume collapse of $\mu\text{-Fe}_2\text{O}_3$ under extreme conditions. Nature Communications, 2018, 9, 4554.	12.8	28
33	Iron oxidation state in garnet from a subduction setting: a micro-XANES and electron microprobe (ϵ -flank method) comparative study. Journal of Analytical Atomic Spectrometry, 2012, 27, 1725.	3.0	27
34	<i>Pbca</i> -Type In_2O_3 : The High-Pressure Post-Corundum phase at Room Temperature.. Journal of Physical Chemistry C, 2014, 118, 20545-20552.	3.1	27
35	Spin-exchange interaction in ZnO -based quantum wells. Physical Review B, 2006, 74, .	3.2	26
36	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

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37	Structural and Lattice-Dynamical Properties of Tb ₂ O ₃ under Compression: A Comparative Study with Rare Earth and Related Sesquioxides. Inorganic Chemistry, 2020, 59, 9648-9666.	4.0	26
38	Structural, vibrational, and electrical study of compressed BiTeBr. Physical Review B, 2016, 93, .	3.2	25
39	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
40	X-ray absorption in GaGdN: A study of local structure. Applied Physics Letters, 2008, 93, 021916.	3.3	24
41	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
42	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
43	Vibrational study of HgGa ₂ S ₄ under high pressure. Journal of Applied Physics, 2013, 113, .	2.5	23
44	Phase Behavior of Ag ₂ CrO ₄ under Compression: Structural, Vibrational, and Optical Properties. Journal of Physical Chemistry C, 2013, 117, 12239-12248.	3.1	23
45	Synthesis and High-Pressure Study of Corundum-Type In ₂ O ₃ . Journal of Physical Chemistry C, 2015, 119, 29076-29087.	3.1	23
46	Compressibility Systematics of Calcite-Type Borates: An Experimental and Theoretical Structural Study on ABO ₃ (A = Al, Sc, Fe, and In). Journal of Physical Chemistry C, 2014, 118, 4354-4361.	3.1	22
47	Pressure effects on the vibrational properties of <i>i</i> -Bi ₂ O ₃ : an experimental and theoretical study. Journal of Physics Condensed Matter, 2014, 26, 225401.	1.8	21
48	Pressure-Induced Phase Transitions in Sesquioxides. Crystals, 2019, 9, 630.	2.2	21
49	Local environment of a diluted element under high pressure: Zn _{1-x} MnxO probed by fluorescence x-ray absorption spectroscopy. Applied Physics Letters, 2006, 89, 231904.	3.3	20
50	High-pressure structural and elastic properties of Ti ₂ O ₃ . Journal of Applied Physics, 2014, 116, .	2.5	20
51	Orpiment under compression: metavalent bonding at high pressure. Physical Chemistry Chemical Physics, 2020, 22, 3352-3369.	2.8	20
52	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
53	Pressure-induced amorphization of YVO ₄ :Eu ³⁺ nanoboxes. Nanotechnology, 2016, 27, 025701.	2.6	19
54	Stardust Interstellar Preliminary Examination II: Curating the interstellar dust collector, picrokeystones, and sources of impact tracks. Meteoritics and Planetary Science, 2014, 49, 1522-1547.	1.6	18

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55	Stardust Interstellar Preliminary Examination <sc>IV</sc>: 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
56	Charge-transfer absorption band in Zn $_{1-x}$ M $_x$ O (M: Co, Mn) investigated by means of photoconductivity, Ga doping, and optical measurements under pressure. Applied Physics Letters, 2010, 96, 241902.	3.3	17
57	Compressibility and structural stability of ultra-incompressible bimetallic interstitial carbides and nitrides. Physical Review B, 2012, 85, .	3.2	17
58	Phase stability and electronic structure of iridium metal at the megabar range. Scientific Reports, 2019, 9, 8940.	3.3	17
59	Stardust Interstellar Preliminary Examination <sc>XI</sc>: 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
60	Stardust Interstellar Preliminary Examination I: Identification of tracks in aerogel. Meteoritics and Planetary Science, 2014, 49, 1509-1521.	1.6	16
61	High-pressure structural phase transition in $MnWO_4$. Physical Review B, 2015, 91, .	3.2	16
62	Optical properties and structural phase transitions in $Mg_xZn_{1-x}O$ under hydrostatic pressure. High Pressure Research, 2004, 24, 119-127.	3.2	16
63	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
64	Synchrotron study of oxygen depletion in a Bi-2212 whisker annealed at 363 K. Journal of Synchrotron Radiation, 2009, 16, 813-817.	2.4	15
65	Structural Characterization of Auophilic Gold(I) Iodide under High Pressure. Inorganic Chemistry, 2019, 58, 10665-10670.	4.0	15
66	Absence of ferromagnetism in single-phase wurtzite Zn $_{1-x}$ Mn $_x$ O polycrystalline thin films. Journal of Applied Physics, 2010, 108, 073922.	2.5	14
67	Experimental and Theoretical Study of SbPO $_4$ under Compression. Inorganic Chemistry, 2020, 59, 287-307.	4.0	14
68	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
69	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
70	Stardust Interstellar Preliminary Examination <sc>VII</sc>: Synchrotron X-ray fluorescence analysis of six Stardust interstellar candidates measured with the Advanced Photon Source 2-ID-D microprobe. Meteoritics and Planetary Science, 2014, 49, 1626-1644.	1.6	13
71	Tetrahedral versus octahedral Mn site coordination in wurtzite and rocksalt Zn $_{1-x}$ Mn $_x$ O investigated by means of XAS experiments under high pressure. Superlattices and Microstructures, 2007, 42, 251-254.	3.1	12
72	Optical, X-ray absorption and photoelectron spectroscopy investigation of the Co site configuration in Zn $_{1-x}$ Co $_x$ O films prepared by pulsed laser deposition. Superlattices and Microstructures, 2007, 42, 226-230.	3.1	12

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73	Order-disorder processes in adamantine ternary ordered vacancy compounds. Physica Status Solidi (B): Basic Research, 2013, 250, 1496-1504.	1.5	12
74	Stardust Interstellar Preliminary Examination VIII: Identification of crystalline material in two interstellar candidates. Meteoritics and Planetary Science, 2014, 49, 1645-1665.	1.6	12
75	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
76	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
77	Stardust Interstellar Preliminary Examination III: Infrared spectroscopic analysis of interstellar dust candidates. Meteoritics and Planetary Science, 2014, 49, 1548-1561.	1.6	12
78	High-pressure characterization of multifunctional CrVO ₄ . Journal of Physics Condensed Matter, 2020, 32, 385403.	1.8	12
79	Structural and vibrational properties of corundum-type In ₂ O ₃ nanocrystals under compression. Nanotechnology, 2017, 28, 205701.	2.6	11
80	Determining the efficiency of optical sources using a smartphone's ambient light sensor. European Journal of Physics, 2017, 38, 025301.	0.6	11
81	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
82	Investigation of lattice dynamical and dielectric properties of MgO under high pressure by means of mid- and far-infrared spectroscopy. Journal of Physics Condensed Matter, 2013, 25, 505902.	1.8	10
83	X-ray excited optical luminescence from crystalline silicon. Physica Status Solidi - Rapid Research Letters, 2009, 3, 275-277.	2.4	9
84	Coordinated Microanalyses of Seven Particles of Probable Interstellar Origin from the Stardust Mission.. Microscopy and Microanalysis, 2014, 20, 1692-1693.	0.4	9
85	Effect of pressure on the structure of La ₂ WO ₆ with a modulated scheelite-type structure. Physical Review B, 2014, 89, .	3.2	9
86	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
87	Structural and Vibrational Properties of CdAl ₂ S ₄ under High Pressure: Experimental and Theoretical Approach. Journal of Physical Chemistry C, 2014, 118, 15363-15374.	3.1	8
88	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
89	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
90	Demonstration of the parallel axis theorem through a smartphone. Physics Teacher, 2019, 57, 340-341.	0.3	8

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91	Study of the Degree of Cure through Thermal Analysis and Raman Spectroscopy in Composite-Forming Processes. <i>Materials</i> , 2019, 12, 3991.	2.9	8
92	Structural, vibrational and electronic properties of $\text{In}^{2+}\text{-Ga}_2\text{S}_3$ under compression. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 6841-6862.	2.8	8
93	PrVO_4 under High Pressure: Effects on Structural, Optical, and Electrical Properties. <i>Inorganic Chemistry</i> , 2020, 59, 18325-18337.	4.0	8
94	Pressure dependence of the optical properties of wurtzite and rock-salt $\text{Zn}_{1-x}\text{Co}_x\text{O}$ thin films. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 407-412.	1.5	7
95	Thermal instability of implanted Mn ions in ZnO. <i>Journal of Applied Physics</i> , 2010, 107, 023507.	2.5	7
96	Structural and Vibrational Study of Pseudocubic CdIn_2Se_4 under Compression. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26987-26999.	3.1	7
97	Unveiling the role of the lone electron pair in sesquioxides at high pressure: compressibility of $\text{In}^{2+}\text{-Sb}_2\text{O}_3$. <i>Dalton Transactions</i> , 2021, 50, 5493-5505.	3.3	7
98	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
99	Experimental and theoretical study of $\text{In}^{2+}\text{-Eu}_2(\text{MoO}_4)_3$ under compression. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 465401.	1.8	5
100	Pressure-induced phase transition in hydrothermally grown ZnO nanoflowers investigated by Raman and photoluminescence spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 385401.	1.8	5
101	Crystal Structure of Sinalite MgAlBO_4 under High Pressure. <i>Journal of Physical Chemistry C</i> , 2015, 119, 6777-6784.	3.1	5
102	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
103	X-ray linear dichroism of defects in GaN:Mg using hard x-ray nanoprobe. <i>Applied Physics Letters</i> , 2009, 95, 151909.	3.3	4
104	Study of the orpiment and anorpiment phases of As_2S_3 under pressure. <i>Journal of Physics: Conference Series</i> , 2017, 950, 042018.	0.4	4
105	X-ray nanoimaging of Nd^{3+} optically active ions embedded in $\text{Sr}_{0.5}\text{Ba}_{0.5}\text{Nb}_{2.0}\text{O}_6$ nanocrystals. <i>Optical Materials Express</i> , 2017, 7, 2424.	3.0	4
106	Hydrolytic stability and biocompatibility on smooth muscle cells of polyethylene glycol-polycaprolactone-based polyurethanes. <i>Journal of Materials Research</i> , 2020, 35, 3276-3285.	2.6	4
107	Fluorescence X-ray micro-spectroscopy activities at ESRF. <i>Journal of Physics: Conference Series</i> , 2009, 186, 012014.	0.4	3
108	Arsenolite: a quasi-hydrostatic solid pressure-transmitting medium. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 475403.	1.8	3

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109	GdBO ₃ and YBO ₃ crystals under compression. Journal of Alloys and Compounds, 2021, 866, 158962.	5.5	3
110	Lattice dynamics study of (Gd _{1-x} Yb _x) ₂ O ₃ (x=0.11) at high pressure. Journal of Alloys and Compounds, 2021, 871, 159525.	5.5	3
111	High-Pressure Synthesis of $\text{In}_{2-x}\text{S}_{3-x}$ -Like Structures in $\text{Ga}_{2-x}\text{S}_{3-x}$. Chemistry of Materials, 2022, 34, 6068-6086.	6.7	3
112	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
113	Pressure dependence of photoluminescence of InAs/InP self-assembled quantum wires. Physica Status Solidi (B): Basic Research, 2007, 244, 59-64.	1.5	1
114	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
115	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
116	Structural and vibrational behavior of cubic Cu _{1.80(3)} Se cuprous selenide, berzelianite, under compression. Journal of Alloys and Compounds, 2020, 830, 154646.	5.5	1
117	Transition path to a dense efficient-packed post-delafoosite phase. Crystal structure and evolution of the chemical bonding. Journal of Alloys and Compounds, 2021, 867, 159012.	5.5	1
118	LINEAR MOMENTUM CONSERVATION: A VIRTUAL LAB EXPERIENCE. EDULEARN Proceedings, 2017, , .	0.0	1
119	High Pressure X-ray Absorption Spectroscopy on Zn _{1-x} Mn _x O (x=0.25 and x=0.05) at the Mn K Edge. AIP Conference Proceedings, 2007, , .	0.4	0
120	Inversion domain boundaries in GaN studied by X-ray microprobe. Physica Status Solidi - Rapid Research Letters, 2010, 4, 31-33.	2.4	0
121	Chemical effects of band filling and band-gap renormalization on heavily doped ZnO:M _[III] (Al, Ga) Tj ETQq1 1 0.784314 ggBT /Ov		
122	Investigation of Mn site configuration in wurtzite and rock-salt Zn _{1-x} Mn _x O by means of XAS experiments under pressure. Acta Crystallographica Section A: Foundations and Advances, 2006, 62, s262-s262.	0.3	0
123	VIRTUAL LABORATORY FOR STUDYING AND UNDERSTANDING THE RELATIONSHIPS AMONG PHYSICAL QUANTITIES. , 2016, , .		0
124	SMARTPHONE FOR TEACHING EXPERIMENTAL PHYSICS. , 2016, , .		0
125	A 3D VIRTUAL LAB ON VECTOR OPERATIONS AND THEIR PROPERTIES. INTED Proceedings, 2017, , .	0.0	0
126	Diseño y evaluación de un laboratorio virtual de vectores en 3D. , 0, , .		0

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127	A VIRTUAL LAB ON MECHANICAL AND ELECTRICAL COMPOSITION OF HARMONIC OSCILLATIONS OF THE SAME FREQUENCY. , 2017, , .		0
128	VIRTUAL LABORATORY ON WAVE REFLECTION IN CONIC CURVES. , 2018, , .		0
129	Polymorphism in sesquioxides of late Group 15: work under pressure. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, e275-e275.	0.1	0
130	High-pressure Raman investigation of high index facets bounded $\hat{1}\pm$ -Fe ₂ O ₃ pseudocubic crystals. Journal of Physics Condensed Matter, 2021, 33, 085701.	1.8	0