

David Santamaria-Perez

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100
papers

1,968
citations

25
h-index

38
g-index

110
ext. papers

2,221
ext. citations

3.7
avg, IF

4.55
L-index

#	Paper	IF	Citations
100	Structural and vibrational study of Bi ₂ Se ₃ under high pressure. <i>Physical Review B</i> , 2011 , 84,	3.3	115
99	Zircon to monazite phase transition in CeVO ₄ : X-ray diffraction and Raman-scattering measurements. <i>Physical Review B</i> , 2011 , 84,	3.3	71
98	X-ray diffraction measurements of Mo melting to 119 GPa and the high pressure phase diagram. <i>Journal of Chemical Physics</i> , 2009 , 130, 124509	3.9	68
97	Melting, density, and anisotropy of iron at core conditions: new x-ray measurements to 150 GPa. <i>Journal of Physics: Conference Series</i> , 2008 , 121, 022018	0.3	66
96	High-pressure studies of topological insulators Bi ₂ Se ₃ , Bi ₂ Te ₃ , and Sb ₂ Te ₃ . <i>Physica Status Solidi (B): Basic Research</i> , 2013 , 250, 669-676	1.3	61
95	High-pressure study of the behavior of mineral barite by x-ray diffraction. <i>Physical Review B</i> , 2011 , 84,	3.3	59
94	Structural and vibrational study of cubic Sb ₂ O ₃ under high pressure. <i>Physical Review B</i> , 2012 , 85,	3.3	57
93	Effects of high-pressure on the structural, vibrational, and electronic properties of monazite-type PbCrO ₄ . <i>Physical Review B</i> , 2012 , 85,	3.3	53
92	Exploring the high-pressure behavior of the three known polymorphs of BiPO ₄ : Discovery of a new polymorph. <i>Journal of Applied Physics</i> , 2015 , 117, 105902	2.5	49
91	Structural stability of Fe ₅ Si ₃ and Ni ₂ Si studied by high-pressure x-ray diffraction and ab initio total-energy calculations. <i>Physical Review B</i> , 2008 , 77,	3.3	46
90	Theoretical and experimental study of the structural stability of TbPO ₄ at high pressures. <i>Physical Review B</i> , 2010 , 81,	3.3	40
89	Crystal Chemistry of CdIn ₂ S ₄ , MgIn ₂ S ₄ , and MnIn ₂ S ₄ Thiospinels under High Pressure. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 14078-14087	3.8	38
88	High-pressure optical and vibrational properties of CdGa ₂ Se ₄ : Order-disorder processes in adamantine compounds. <i>Journal of Applied Physics</i> , 2012 , 111, 013518	2.5	36
87	High-pressure experimental study on Rb ₂ S: antiferroite to Ni ₂ In-type phase transitions. <i>Acta Crystallographica Section B: Structural Science</i> , 2011 , 67, 109-15		36
86	The Zintl-Klemm concept applied to cations in oxides. I. The structures of ternary aluminates. <i>Acta Crystallographica Section B: Structural Science</i> , 2003 , 59, 305-23		36
85	High-pressure melting curve of helium and neon: Deviations from corresponding states theory. <i>Physical Review B</i> , 2010 , 81,	3.3	34
84	Experimental and Theoretical Study of Bi ₂ O ₂ Se Under Compression. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 8853-8867	3.8	32

83	Experimental and theoretical confirmation of an orthorhombic phase transition in niobium at high pressure and temperature. <i>Communications Materials</i> , 2020 , 1,	6	32
82	Compression of silver sulfide: X-ray diffraction measurements and total-energy calculations. <i>Inorganic Chemistry</i> , 2012 , 51, 5289-98	5.1	31
81	The Zintl-Klemm Concept Applied to Cations in Oxides. II. The Structures of Silicates	121-177	31
80	High-pressure investigation of Li ₂ MnSiO ₄ and Li ₂ CoSiO ₄ electrode materials for lithium-ion batteries. <i>Inorganic Chemistry</i> , 2012 , 51, 5779-86	5.1	30
79	High-pressure x-ray diffraction study of bulk and nanocrystalline PbMoO ₄ . <i>Journal of Applied Physics</i> , 2010 , 108, 073518	2.5	29
78	High-pressure x-ray diffraction study of CdMoO ₄ and EuMoO ₄ . <i>Journal of Applied Physics</i> , 2011 , 109, 043510-043510-5	2.5	27
77	New high-pressure phase of HfTiO ₄ and ZrTiO ₄ ceramics. <i>Materials Research Bulletin</i> , 2010 , 45, 1732-1735	5.1	27
76	Melting curve and phase diagram of vanadium under high-pressure and high-temperature conditions. <i>Physical Review B</i> , 2019 , 100,	3.3	26
75	Structural and elastic properties of defect chalcopyrite HgGa ₂ S ₄ under high pressure. <i>Journal of Alloys and Compounds</i> , 2014 , 583, 70-78	5.7	25
74	Structural behaviour of alkaline sulfides under compression: high-pressure experimental study on Cs ₂ S. <i>Journal of Chemical Physics</i> , 2011 , 135, 054511	3.9	25
73	Peptide metal-organic frameworks under pressure: flexible linkers for cooperative compression. <i>Dalton Transactions</i> , 2018 , 47, 10654-10659	4.3	25
72	Pressure-induced Pr ³⁺ 3P ₀ luminescence in cubic Y ₂ O ₃ . <i>Journal of Luminescence</i> , 2014 , 146, 27-32	3.8	24
71	Pbca-Type In ₂ O ₃ : The High-Pressure Post-Corundum phase at Room Temperature.. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 20545-20552	3.8	24
70	High-pressure study of the structural and elastic properties of defect-chalcopyrite HgGa ₂ Se ₄ . <i>Journal of Applied Physics</i> , 2013 , 113, 073510	2.5	24
69	FeSi melting curve up to 70 GPa. <i>Earth and Planetary Science Letters</i> , 2008 , 265, 743-747	5.3	24
68	Ordered helium trapping and bonding in compressed arsenolite: Synthesis of As ₄ O ₆ ·2He. <i>Physical Review B</i> , 2016 , 93,	3.3	23
67	Structural phase transitions on AgCuS stromeyerite mineral under compression. <i>Inorganic Chemistry</i> , 2013 , 52, 355-61	5.1	22
66	Polymorphism in Strontium Tungstate SrWO ₄ under Quasi-Hydrostatic Compression. <i>Inorganic Chemistry</i> , 2016 , 55, 10406-10414	5.1	22

65	Phase Behavior of Ag ₂ CrO ₄ under Compression: Structural, Vibrational, and Optical Properties. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 12239-12248	3.8	21
64	Anions in metallic matrices model: application to the aluminium crystal chemistry. <i>Acta Crystallographica Section B: Structural Science</i> , 2006 , 62, 220-7		21
63	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	3.8	19
62	Quantitative Raman spectroscopy as a tool to study the kinetics and formation mechanism of carbonates. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2013 , 116, 26-30	4.4	19
61	Correspondence: Strongly-driven Re+CO redox reaction at high-pressure and high-temperature. <i>Nature Communications</i> , 2016 , 7, 13647	17.4	19
60	High-pressure transition to the post-barite phase in BaCrO ₄ hashemite. <i>Physical Review B</i> , 2012 , 86,	3.3	18
59	Experimental and Theoretical Investigations on Structural and Vibrational Properties of Melilite-Type Sr ₂ ZnGe ₂ O ₇ at High Pressure and Delineation of a High-Pressure Monoclinic Phase. <i>Inorganic Chemistry</i> , 2015 , 54, 6594-605	5.1	17
58	Metastable structural transformations and pressure-induced amorphization in natural (Mg,Fe) ₂ SiO ₄ olivine under static compression: a raman spectroscopic study. <i>American Mineralogist</i> , 2016 , 101, 1642-1650	2.9	17
57	Exploring the Chemical Reactivity between Carbon Dioxide and Three Transition Metals (Au, Pt, and Re) at High-Pressure, High-Temperature Conditions. <i>Inorganic Chemistry</i> , 2016 , 55, 10793-10799	5.1	17
56	Crystal structure of HgGa ₂ Se ₄ under compression. <i>Materials Research Bulletin</i> , 2013 , 48, 2128-2133	5.1	17
55	Structural Evolution of CO ₂ -Filled Pure Silica LTA Zeolite under High-Pressure High-Temperature Conditions. <i>Chemistry of Materials</i> , 2017 , 29, 4502-4510	9.6	16
54	Compression of mineral barite, BaSO ₄ : a structural study. <i>High Pressure Research</i> , 2012 , 32, 81-88	1.6	16
53	Structural characterization of a new high-pressure phase of GaAsO ₄ . <i>Acta Crystallographica Section B: Structural Science</i> , 2006 , 62, 1019-24		16
52	Comparative study of the high-pressure behavior of ZnV ₂ O ₆ , Zn ₂ V ₂ O ₇ , and Zn ₃ V ₂ O ₈ . <i>Journal of Alloys and Compounds</i> , 2020 , 837, 155505	5.7	15
51	High-pressure structural and elastic properties of Tl ₂ O ₃ . <i>Journal of Applied Physics</i> , 2014 , 116, 133521	2.5	15
50	Pressure-induced amorphization of YVO ₄ nanoboxes. <i>Nanotechnology</i> , 2016 , 27, 025701	3.4	14
49	Pressure-induced phase transformations in mineral chalcocite, Cu ₂ S, under hydrostatic conditions. <i>Journal of Alloys and Compounds</i> , 2014 , 610, 645-650	5.7	14
48	Compressibility and structural stability of ultra-incompressible bimetallic interstitial carbides and nitrides. <i>Physical Review B</i> , 2012 , 85,	3.3	14

47	An Ultrahigh CO-Loaded Silicalite-1 Zeolite: Structural Stability and Physical Properties at High Pressures and Temperatures. <i>Inorganic Chemistry</i> , 2018 , 57, 6447-6455	5.1	13
46	Iron silicides and their corresponding oxides: a high-pressure study of Fe ₅ Si ₃ . <i>Solid State Sciences</i> , 2004 , 6, 673-678	3.4	13
45	High-pressure structural phase transition in MnWO ₄ . <i>Physical Review B</i> , 2015 , 91,	3.3	12
44	Pressure Impact on the Stability and Distortion of the Crystal Structure of CeScO. <i>Inorganic Chemistry</i> , 2017 , 56, 8363-8371	5.1	12
43	Compressibility and structural behavior of pure and Fe-doped SnO ₂ nanocrystals. <i>Solid State Sciences</i> , 2017 , 64, 91-98	3.4	11
42	Post-tilleyite, a dense calcium silicate-carbonate phase. <i>Scientific Reports</i> , 2019 , 9, 7898	4.9	11
41	High-pressure structural and lattice dynamical study of HgWO ₄ . <i>Physical Review B</i> , 2010 , 82,	3.3	11
40	Reversibility of the zinc-blende to rock-salt phase transition in cadmium sulfide nanocrystals. <i>Journal of Applied Physics</i> , 2012 , 111, 063516	2.5	11
39	Structural Behavior of Natural Silicate-Carbonate Spurrite Mineral, Ca(SiO)(CO), under High-Pressure, High-Temperature Conditions. <i>Inorganic Chemistry</i> , 2018 , 57, 98-105	5.1	11
38	High-pressure phase transformations in NdVO under hydrostatic, conditions: a structural powder x-ray diffraction study. <i>Journal of Physics Condensed Matter</i> , 2019 , 31, 235401	1.8	10
37	Structural similarities between Ti metal and titanium oxides: implications on the high-pressure behavior of oxygen in metallic matrices. <i>Solid State Sciences</i> , 2004 , 6, 809-814	3.4	10
36	High-Pressure High-Temperature Stability and Thermal Equation of State of Zircon-Type Erbium Vanadate. <i>Inorganic Chemistry</i> , 2018 , 57, 14005-14012	5.1	10
35	High-pressure polymorphs of gadolinium orthovanadate: X-ray diffraction, Raman spectroscopy, and ab initio calculations. <i>Physical Review B</i> , 2019 , 100,	3.3	9
34	Experimental and Theoretical Study of SbPO under Compression. <i>Inorganic Chemistry</i> , 2020 , 59, 287-307	5.1	9
33	Gold(i) sulfide: unusual bonding and an unexpected computational challenge in a simple solid. <i>Chemical Science</i> , 2019 , 10, 6467-6475	9.4	8
32	Structure, metastability, and electron density of Al lattices in light of the model of anions in metallic matrices. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 18609-18	3.4	8
31	The structures of ZrNCl, TiOCl and AlOCl in the light of the Zintl-Klemm concept. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2003 , 218, 466-469	1	8
30	First-principles study of structure and stability in SiO ₂ -based materials. <i>Theoretical Chemistry Accounts</i> , 2013 , 132, 1	1.9	7

29	Structural and Vibrational Study of Pseudocubic CdIn ₂ Se ₄ under Compression. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 26987-26999	3.8	7
28	Four-mode plasmonic structure based on a prism-grating anticrossing bandgap. <i>Applied Physics Letters</i> , 2012 , 100, 063301	3.4	7
27	Pressure and Temperature Effects on Low-Density Mg ₃ Ca(CO ₃) ₄ Huntite Carbonate. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 1077-1087	3.8	7
26	Crystal Structure of BaCa(CO) Alstonite Carbonate and Its Phase Stability upon Compression.. <i>ACS Earth and Space Chemistry</i> , 2021 , 5, 1130-1139	3.2	7
25	Oxidation of High Yield Strength Metals Tungsten and Rhenium in High-Pressure High-Temperature Experiments of Carbon Dioxide and Carbonates. <i>Crystals</i> , 2019 , 9, 676	2.3	7
24	Pressure-induced changes of the structure and properties of monoclinic chalcocite Cu ₂ S. <i>Physical Review B</i> , 2018 , 97,	3.3	6
23	Structural and Vibrational Properties of CdAl ₂ S ₄ under High Pressure: Experimental and Theoretical Approach. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 15363-15374	3.8	6
22	Isothermal equation of state and phase stability of Fe ₅ Si ₃ up to 96 GPa and 3000 K. <i>Journal of Geophysical Research: Solid Earth</i> , 2017 , 122, 4328-4335	3.6	6
21	A new description of the crystal structures of tin oxide fluorides. <i>Solid State Sciences</i> , 2005 , 7, 479-485	3.4	6
20	Phase Stability of Natural Ni _{0.75} Mg _{0.22} Ca _{0.03} CO ₃ Gaspeite Mineral at High Pressure and Temperature. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 19781-19792	3.8	6
19	InBO ₃ and ScBO ₃ at high pressures: An ab initio study of elastic and thermodynamic properties. <i>Journal of Physics and Chemistry of Solids</i> , 2016 , 98, 198-208	3.9	6
18	Effect of pressure on La ₂ (WO ₄) ₃ with a modulated scheelite-type structure. <i>Physical Review B</i> , 2014 , 89,	3.3	5
17	Dense Post-Barite-type Polymorph of PbSO Anglesite at High Pressures. <i>Inorganic Chemistry</i> , 2019 , 58, 2708-2716	5.1	4
16	Crystal Structure of Sinhalite MgAlBO ₄ under High Pressure. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 6777-6784	3.8	4
15	Experimental evidence for pressure-driven isostructural and symmetry-breaking phase transitions on Bi ₁₄ CrO ₂₄ . <i>Solid State Communications</i> , 2014 , 182, 50-54	1.6	4
14	Tuning the Propagation Constant by the Anticrossing Bandgap Prism Coupling Technique. <i>Plasmonics</i> , 2012 , 7, 665-675	2.4	4
13	Structural Relationships Between Intermetallic Clathrates, Porous Tectosilicates and Clathrate Hydrates. <i>Structure and Bonding</i> , 2010 , 1-29	0.9	3
12	Characterization of Salting-Out Processes during CO ₂ -Clathrate Formation Using Raman Spectroscopy: Planetological Application. <i>Spectroscopy Letters</i> , 2012 , 45, 407-412	1.1	3

11	Compressibility and Phase Stability of Iron-Rich Ankerite. <i>Minerals (Basel, Switzerland)</i> , 2021 , 11, 607	2.4	3
10	Crystal behavior of potassium bromate under compression. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2015 , 71, 798-804	1.8	2
9	Pressure-Induced Phase Transition and Band Gap Decrease in Semiconducting CuVO_4 . <i>Inorganic Chemistry</i> , 2022 ,	5.1	2
8	High-pressure theoretical and experimental study of HgWO_4 . <i>High Pressure Research</i> , 2011 , 31, 58-63	1.6	1
7	Phase diagram studies on iron and nickel silicides: high-pressure experiments and ab initio calculations. <i>Journal of Physics: Conference Series</i> , 2008 , 121, 022013	0.3	1
6	Infrared study of BiO_2 single crystal under high pressure. <i>Journal of Applied Physics</i> , 2016 , 119, 055902	2.5	1
5	Phase stability and dense polymorph of the $\text{BaCa}(\text{CO}_3)$ barytocalcite carbonate. <i>Scientific Reports</i> , 2022 , 12, 7413	4.9	1
4	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	5.7	0
3	Transition path to a dense efficient-packed post-delafossite phase. Crystal structure and evolution of the chemical bonding. <i>Journal of Alloys and Compounds</i> , 2021 , 867, 159012	5.7	0
2	Experimentos a alta presión y alta temperatura: Ventanas al universo. <i>Revista De La Tierra</i> , 1970 , 23, 11		
1	First-principles study of structure and stability in SiO_2 -based materials. <i>Highlights in Theoretical Chemistry</i> , 2014 , 197-201		