

Rosario Vilaplana

List of Publications by Year in descending order

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56
papers

1,581
citations

279487

23
h-index

315357

38
g-index

56
all docs

56
docs citations

56
times ranked

1818
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and vibrational study of Bi ₂ Se ₃ under high pressure. Physical Review B, 2011, 84, .	1.1	138
2	Density of , and ices at different temperatures of deposition. Planetary and Space Science, 2008, 56, 1748-1752.	0.9	116
3	Lattice dynamics of Sb ₂ Te ₃ under high pressure. Physical Review B, 2011, 84, .	1.1	108
4	High-pressure vibrational and optical study of Bi ₂ Te ₃ . Physical Review B, 2011, 84, .	1.1	100
5	High-pressure Raman spectroscopy and lattice dynamics calculations on SnTe and MgWO ₄ : Comparison with isomorphic compounds. Physical Review B, 2011, 83, .	1.1	78
6	High-pressure studies of topological insulators Bi ₂ Se ₃ , Bi ₂ Te ₃ , and Sb ₂ Te ₃ . Physica Status Solidi (B): Basic Research, 2013, 250, 669-676.	0.7	77
7	Structural and vibrational study of cubic Sb ₂ O ₃ . Physical Review B, 2012, 85, .	1.1	71
8	Isostructural Second-Order Phase Transition of Bi ₂ O ₃ at High Pressures: An Experimental and Theoretical Study. Journal of Physical Chemistry C, 2014, 118, 23189-23201.	1.5	59
9	High-pressure optical and vibrational properties of CdGa ₂ Se ₄ : Order-disorder processes in adamantine compounds. Journal of Applied Physics, 2012, 111, .	1.1	46
10	Experimental and Theoretical Study of Bi ₂ O ₂ Se Under Compression. Journal of Physical Chemistry C, 2018, 122, 8853-8867.	1.5	46
11	Experimental and Theoretical Studies on Bi ₂ Se ₃ at High Pressure. Inorganic Chemistry, 2018, 57, 8241-8252.	1.9	46
12	Study of the sensitivity of size-averaged scattering matrix elements of nonspherical particles to changes in shape, porosity and refractive index. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 415-428.	1.1	43
13	Structural, Vibrational, and Electronic Study of Bi ₂ Te ₃ under Compression. Journal of Physical Chemistry C, 2016, 120, 19340-19352.	1.5	37
14	Lattice Dynamics Study of Nanocrystalline Yttrium Gallium Garnet at High Pressure. Journal of Physical Chemistry C, 2014, 118, 13177-13185.	1.5	33
15	Structural and elastic properties of defect chalcopyrite HgGa ₂ S ₄ under high pressure. Journal of Alloys and Compounds, 2014, 583, 70-78.	2.8	32
16	Characterization and Decomposition of the Natural van der Waals SnSb ₂ Te ₄ under Compression. Inorganic Chemistry, 2020, 59, 9900-9918.	1.9	31
17	High-pressure study of the structural and elastic properties of defect-chalcopyrite HgGa ₂ Se ₄ . Journal of Applied Physics, 2013, 113, .	1.1	28
18	Structural and electrical study of the topological insulator SnBi ₂ Te ₄ at high pressure. Journal of Alloys and Compounds, 2016, 685, 962-970.	2.8	28

#	ARTICLE	IF	CITATIONS
19	Irregular Particles in Comet C/1995 O1 Hale-Bopp Inferred from its Mid-Infrared Spectrum. <i>Astrophysical Journal</i> , 2003, 595, 522-530.	1.6	27
20	<i>Pbca</i> -Type In_2O_3 : The High-Pressure Post-Corundum phase at Room Temperature.. <i>Journal of Physical Chemistry C</i> , 2014, 118, 20545-20552.	1.5	27
21	Comet dust as a size distribution of irregularly shaped, compact particles. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2007, 106, 348-359.	1.1	25
22	Structural, vibrational, and electrical study of compressed BiTeBr. <i>Physical Review B</i> , 2016, 93, .	1.1	25
23	Vibrational study of HgGa ₂ S ₄ under high pressure. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	23
24	Raman scattering study of bulk and nanocrystalline PbMoO ₄ at high pressures. <i>Journal of Applied Physics</i> , 2012, 112, 103510.	1.1	22
25	Lattice Dynamics Study of HgGa ₂ Se ₄ at High Pressures. <i>Journal of Physical Chemistry C</i> , 2013, 117, 15773-15781.	1.5	21
26	High-pressure structural and elastic properties of Ti ₂ O ₃ . <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	20
27	Orpiment under compression: metavalent bonding at high pressure. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 3352-3369.	1.3	20
28	Crystal structure of HgGa ₂ Se ₄ under compression. <i>Materials Research Bulletin</i> , 2013, 48, 2128-2133.	2.7	18
29	Quasi-hydrostatic X-ray powder diffraction study of the low- and high-pressure phases of CaWO ₄ up to 28 GPa. <i>Solid State Sciences</i> , 2014, 36, 16-23.	1.5	18
30	High-pressure Raman scattering study of defect chalcopyrite and defect stannite ZnGa ₂ Se ₄ . <i>Journal of Applied Physics</i> , 2013, 113, 233501.	1.1	17
31	High-pressure Raman scattering in wurtzite indium nitride. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	16
32	The scattering matrix for size distributions of irregular particles: An application to an olivine sample. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2006, 100, 277-287.	1.1	14
33	Compressibility and structural behavior of pure and Fe-doped SnO ₂ nanocrystals. <i>Solid State Sciences</i> , 2017, 64, 91-98.	1.5	14
34	Experimental and Theoretical Study of SbPO ₄ under Compression. <i>Inorganic Chemistry</i> , 2020, 59, 287-307.	1.9	14
35	HgGa ₂ Se ₄ under high pressure: An optical absorption study. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 2043-2051.	0.7	13
36	Thermally activated cation ordering in ZnGa ₂ Se ₄ single crystals studied by Raman scattering, optical absorption, and <i>ab initio</i> calculations. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 165802.	0.7	12

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37	Order-disorder processes in adamantine ternary ordered-vacancy compounds. Physica Status Solidi (B): Basic Research, 2013, 250, 1496-1504.	0.7	12
38	The effect of porosity of dust particles on polarization and color with special reference to comets. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 198, 164-178.	1.1	12
39	The shape influence on the overall single scattering properties of a sample in random orientation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1838-1847.	1.1	11
40	Structural and vibrational properties of corundum-type In_2O_3 nanocrystals under compression. Nanotechnology, 2017, 28, 205701.	1.3	11
41	Engineering of lithium niobate domain structure through the off-centered Czochralski growth technique. Journal of Crystal Growth, 2002, 237-239, 677-681.	0.7	9
42	Computations of the single scattering properties of an ensemble of compact and inhomogeneous rectangular prisms: implications for cometary dust. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 88, 219-231.	1.1	9
43	Structural and Vibrational Properties of CdAl_2S_4 under High Pressure: Experimental and Theoretical Approach. Journal of Physical Chemistry C, 2014, 118, 15363-15374.	1.5	8
44	Structural, vibrational and electronic properties of $\text{In}^2\text{-Ga}_2\text{S}_3$ under compression. Physical Chemistry Chemical Physics, 2021, 23, 6841-6862.	1.3	8
45	Structural and Vibrational Study of Pseudocubic CdIn_2Se_4 under Compression. Journal of Physical Chemistry C, 2014, 118, 26987-26999.	1.5	7
46	Vibrational properties of CdGa_2S_4 at high pressure. Journal of Applied Physics, 2019, 125, .	1.1	7
47	$\langle \text{mml:math} \text{xmlns:mml}="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mrow} \langle \text{mml:mi} \hat{I}^2 \langle \text{mml:mi} \rangle \langle \text{mml:mtext} \rangle \hat{a}'' \langle \text{mml:mtext} \rangle \langle \text{mml:msub} \rangle \text{ : Pressure-induced three-dimensional Dirac semimetal with ultralow room-pressure lattice thermal conductivity. Physical Review B, 2021, 104, .} \rangle \rangle \rangle$	1.1	7
48	Comparison of light scattering properties of porous dust particle with connected and unconnected dipoles. Planetary and Space Science, 2020, 190, 104974.	0.9	5
49	Pressure-induced order-disorder transitions in In_2S_3 : an experimental and theoretical study of structural and vibrational properties. Physical Chemistry Chemical Physics, 2021, 23, 23625-23642.	1.3	3
50	High-Pressure Synthesis of $\text{In}^2\text{-}$ and $\text{In}^3\text{-In}_2\text{Se}_3$ -Like Structures in Ga_2S_3 . Chemistry of Materials, 2022, 34, 6068-6086.	3.2	3
51	Joining together theory and practice in the classroom for electrical engineering undergraduates: The large-scale portable laboratory. International Journal of Electrical Engineering and Education, 2021, 58, 715-725.	0.4	2
52	AB_2S_4 Ordered-Vacancy Compounds at High Pressures. Springer Series in Materials Science, 2014, , 133-161.	0.4	2
53	Infrared studies at the ice laboratory of Alcoy. Planetary and Space Science, 2008, 56, 1744-1747.	0.9	1
54	Structural and vibrational behavior of cubic $\text{Cu}_{1.80(3)}\text{Se}$ cuprous selenide, berzelianite, under compression. Journal of Alloys and Compounds, 2020, 830, 154646.	2.8	1

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55	Laboratory set-up for studying ices at the MIR and FIR region. Planetary and Space Science, 2009, 57, 446-448.	0.9	0
56	The influence of particle shapes and sizes in the CO ice stretching mode. Earth, Planets and Space, 2010, 62, 91-98.	0.9	0