

Rosario Vilaplana

List of Publications by Citations

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54
papers

1,234
citations

19
h-index

34
g-index

56
ext. papers

1,435
ext. citations

3.1
avg. IF

3.76
L-index

#	Paper	IF	Citations
54	Structural and vibrational study of Bi ₂ Se ₃ under high pressure. <i>Physical Review B</i> , 2011 , 84,	3.3	115
53	Density of , and ices at different temperatures of deposition. <i>Planetary and Space Science</i> , 2008 , 56, 1748-1752	100	
52	High-pressure vibrational and optical study of Bi ₂ Te ₃ . <i>Physical Review B</i> , 2011 , 84,	3.3	83
51	Lattice dynamics of Sb ₂ Te ₃ at high pressures. <i>Physical Review B</i> , 2011 , 84,	3.3	81
50	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
49	High-pressure Raman spectroscopy and lattice-dynamics calculations on scintillating MgWO ₄ : Comparison with isomorphous compounds. <i>Physical Review B</i> , 2011 , 83,	3.3	61
48	Structural and vibrational study of cubic Sb ₂ O ₃ under high pressure. <i>Physical Review B</i> , 2012 , 85,	3.3	57
47	Isostructural Second-Order Phase Transition of Bi ₂ O ₃ at High Pressures: An Experimental and Theoretical Study. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 23189-23201	3.8	50
46	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
45	Study of the sensitivity of size-averaged scattering matrix elements of nonspherical particles to changes in shape, porosity and refractive index. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2006 , 100, 415-428	2.1	36
44	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
43	Lattice Dynamics Study of Nanocrystalline Yttrium Gallium Garnet at High Pressure. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 13177-13185	3.8	30
42	Structural, Vibrational, and Electronic Study of BiAs ₂ Te ₃ under Compression. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 19340-19352	3.8	28
41	Irregular Particles in Comet C/1995 O1 Hale-Bopp Inferred from its Mid-Infrared Spectrum. <i>Astrophysical Journal</i> , 2003 , 595, 522-530	4.7	26
40	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
39	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
38	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

37	Comet dust as a size distribution of irregularly shaped, compact particles. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2007 , 106, 348-359	2.1	23
36	Experimental and Theoretical Studies on HnSe at High Pressure. <i>Inorganic Chemistry</i> , 2018 , 57, 8241-8253	3.1	22
35	Structural, vibrational, and electrical study of compressed BiTeBr. <i>Physical Review B</i> , 2016 , 93,	3.3	19
34	Structural and electrical study of the topological insulator SnBi2Te4 at high pressure. <i>Journal of Alloys and Compounds</i> , 2016 , 685, 962-970	5.7	19
33	Lattice Dynamics Study of HgGa2Se4 at High Pressures. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 15773-15781	3.8	19
32	Vibrational study of HgGa2S4 under high pressure. <i>Journal of Applied Physics</i> , 2013 , 113, 093512	2.5	18
31	Crystal structure of HgGa2Se4 under compression. <i>Materials Research Bulletin</i> , 2013 , 48, 2128-2133	5.1	17
30	Raman scattering study of bulk and nanocrystalline PbMoO4 at high pressures. <i>Journal of Applied Physics</i> , 2012 , 112, 103510	2.5	17
29	High-pressure structural and elastic properties of Ti2O3. <i>Journal of Applied Physics</i> , 2014 , 116, 133521	2.5	15
28	High-pressure Raman scattering in wurtzite indium nitride. <i>Applied Physics Letters</i> , 2011 , 99, 011908	3.4	15
27	High-pressure Raman scattering study of defect chalcopyrite and defect stannite ZnGa2Se4. <i>Journal of Applied Physics</i> , 2013 , 113, 233501	2.5	14
26	Orpiment under compression: metavalent bonding at high pressure. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 3352-3369	3.6	14
25	Quasi-hydrostatic X-ray powder diffraction study of the low- and high-pressure phases of CaWO4 up to 28 GPa. <i>Solid State Sciences</i> , 2014 , 36, 16-23	3.4	13
24	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	2.1	12
23	Compressibility and structural behavior of pure and Fe-doped SnO 2 nanocrystals. <i>Solid State Sciences</i> , 2017 , 64, 91-98	3.4	11
22	Characterization and Decomposition of the Natural van der Waals SnSbTe under Compression. <i>Inorganic Chemistry</i> , 2020 , 59, 9900-9918	5.1	11
21	The effect of porosity of dust particles on polarization and color with special reference to comets. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017 , 198, 164-178	2.1	10
20	Order-disorder processes in adamantane ternary ordered-vacancy compounds. <i>Physica Status Solidi (B): Basic Research</i> , 2013 , 250, 1496-1504	1.3	10

19	The shape influence on the overall single scattering properties of a sample in random orientation. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2011 , 112, 1838-1847	2.1	10
18	HgGa ₂ Se ₄ under high pressure: An optical absorption study. <i>Physica Status Solidi (B): Basic Research</i> , 2015 , 252, 2043-2051	1.3	9
17	Computations of the single scattering properties of an ensemble of compact and inhomogeneous rectangular prisms: implications for cometary dust. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2004 , 88, 219-231	2.1	9
16	Experimental and Theoretical Study of SbPO under Compression. <i>Inorganic Chemistry</i> , 2020 , 59, 287-307	5.1	9
15	Structural and vibrational properties of corundum-type InO nanocrystals under compression. <i>Nanotechnology</i> , 2017 , 28, 205701	3.4	8
14	Thermally activated cation ordering in ZnGa ₂ Se ₄ single crystals studied by Raman scattering, optical absorption, and ab initio calculations. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 165802	1.8	8
13	Engineering of lithium niobate domain structure through the off-centered Czochralski growth technique. <i>Journal of Crystal Growth</i> , 2002 , 237-239, 677-681	1.6	8
12	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
11	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
10	Vibrational properties of CdGa ₂ S ₄ at high pressure. <i>Journal of Applied Physics</i> , 2019 , 125, 115901	2.5	4
9	Structural, vibrational and electronic properties of HgGaS under compression. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 6841-6862	3.6	3
8	Comparison of light scattering properties of porous dust particle with connected and unconnected dipoles. <i>Planetary and Space Science</i> , 2020 , 190, 104974	2	2
7	(AB_2S_4) Ordered-Vacancy Compounds at High Pressures. <i>Springer Series in Materials Science</i> , 2014 , 133-161	0.9	2
6	Infrared studies at the ice laboratory of Alcoa. <i>Planetary and Space Science</i> , 2008 , 56, 1744-1747	2	1
5	Joining together theory and practice in the classroom for electrical engineering undergraduates: The large-scale portable laboratory. <i>International Journal of Electrical Engineering and Education</i> , 2019 , 002072091983303	0.6	0
4	Structural and vibrational behavior of cubic Cu _{1.80(3)} Se cuprous selenide, berzelianite, under compression. <i>Journal of Alloys and Compounds</i> , 2020 , 830, 154646	5.7	0
3	Pressure-induced order-disorder transitions in InS: an experimental and theoretical study of structural and vibrational properties. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 23625-23642	3.6	0
2	The influence of particle shapes and sizes in the CO ice stretching mode. <i>Earth, Planets and Space</i> , 2010 , 62, 91-98	2.9	0

- 1 Laboratory set-up for studying ices at the MIR and FIR region. *Planetary and Space Science*, **2009**, 57, 446-448