

# Rosario Vilaplana

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Pressure-induced order-disorder transitions in $\text{InS}$ : an experimental and theoretical study of structural and vibrational properties. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 23625-23642	3.6	0
53	Structural, vibrational and electronic properties of $\text{HgGaS}$ under compression. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 6841-6862	3.6	3
52	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> , <b>2020</b> , 830, 154646	5.7	0
51	Characterization and Decomposition of the Natural van der Waals $\text{SnSbTe}$ under Compression. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 9900-9918	5.1	11
50	Comparison of light scattering properties of porous dust particle with connected and unconnected dipoles. <i>Planetary and Space Science</i> , <b>2020</b> , 190, 104974	2	2
49	Orpiment under compression: metavalent bonding at high pressure. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 3352-3369	3.6	14
48	Experimental and Theoretical Study of $\text{SbPO}$ under Compression. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 287-307	5.1	9
47	Vibrational properties of $\text{CdGa}_2\text{S}_4$ at high pressure. <i>Journal of Applied Physics</i> , <b>2019</b> , 125, 115901	2.5	4
46	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> , <b>2019</b> , 002072091983303	0.6	0
45	Experimental and Theoretical Study of $\text{Bi}_2\text{O}_2\text{Se}$ Under Compression. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 8853-8867	3.8	32
44	Experimental and Theoretical Studies on $\text{InSe}$ at High Pressure. <i>Inorganic Chemistry</i> , <b>2018</b> , 57, 8241-8252	5.1	22
43	Compressibility and structural behavior of pure and Fe-doped $\text{SnO}_2$ nanocrystals. <i>Solid State Sciences</i> , <b>2017</b> , 64, 91-98	3.4	11
42	Structural and vibrational properties of corundum-type $\text{InO}$ nanocrystals under compression. <i>Nanotechnology</i> , <b>2017</b> , 28, 205701	3.4	8
41	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> , <b>2017</b> , 198, 164-178	2.1	10
40	Structural, vibrational, and electrical study of compressed $\text{BiTeBr}$ . <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	19
39	Structural and electrical study of the topological insulator $\text{SnBi}_2\text{Te}_4$ at high pressure. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 685, 962-970	5.7	19
38	Structural, Vibrational, and Electronic Study of $\text{As}_2\text{Te}_3$ under Compression. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 19340-19352	3.8	28

37	HgGa <sub>2</sub> Se <sub>4</sub> under high pressure: An optical absorption study. <i>Physica Status Solidi (B): Basic Research</i> , <b>2015</b> , 252, 2043-2051	1.3	9
36	Pbca-Type In <sub>2</sub> O <sub>3</sub> : The High-Pressure Post-Corundum phase at Room Temperature.. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 20545-20552	3.8	24
35	Isostructural Second-Order Phase Transition of Bi <sub>2</sub> O <sub>3</sub> at High Pressures: An Experimental and Theoretical Study. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 23189-23201	3.8	50
34	Structural and Vibrational Properties of CdAl <sub>2</sub> S <sub>4</sub> under High Pressure: Experimental and Theoretical Approach. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 15363-15374	3.8	6
33	Quasi-hydrostatic X-ray powder diffraction study of the low- and high-pressure phases of CaWO <sub>4</sub> up to 28 GPa. <i>Solid State Sciences</i> , <b>2014</b> , 36, 16-23	3.4	13
32	Lattice Dynamics Study of Nanocrystalline Yttrium Gallium Garnet at High Pressure. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 13177-13185	3.8	30
31	High-pressure structural and elastic properties of Ti <sub>2</sub> O <sub>3</sub> . <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 133521	2.5	15
30	Structural and Vibrational Study of Pseudocubic CdIn <sub>2</sub> Se <sub>4</sub> under Compression. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 26987-26999	3.8	7
29	Structural and elastic properties of defect chalcopyrite HgGa <sub>2</sub> S <sub>4</sub> under high pressure. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 583, 70-78	5.7	25
28	( $\text{AB}_2\text{S}_4$ ) Ordered-Vacancy Compounds at High Pressures. <i>Springer Series in Materials Science</i> , <b>2014</b> , 133-161	0.9	2
27	Lattice Dynamics Study of HgGa <sub>2</sub> Se <sub>4</sub> at High Pressures. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 15773-15781	3.8	19
26	High-pressure Raman scattering study of defect chalcopyrite and defect stannite ZnGa <sub>2</sub> Se <sub>4</sub> . <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 233501	2.5	14
25	Vibrational study of HgGa <sub>2</sub> S <sub>4</sub> under high pressure. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 093512	2.5	18
24	Thermally activated cation ordering in ZnGa <sub>2</sub> Se <sub>4</sub> single crystals studied by Raman scattering, optical absorption, and ab initio calculations. <i>Journal of Physics Condensed Matter</i> , <b>2013</b> , 25, 165802	1.8	8
23	Crystal structure of HgGa <sub>2</sub> Se <sub>4</sub> under compression. <i>Materials Research Bulletin</i> , <b>2013</b> , 48, 2128-2133	5.1	17
22	Order-disorder processes in adamantite ternary ordered-vacancy compounds. <i>Physica Status Solidi (B): Basic Research</i> , <b>2013</b> , 250, 1496-1504	1.3	10
21	High-pressure studies of topological insulators Bi <sub>2</sub> Se <sub>3</sub> , Bi <sub>2</sub> Te <sub>3</sub> , and Sb <sub>2</sub> Te <sub>3</sub> . <i>Physica Status Solidi (B): Basic Research</i> , <b>2013</b> , 250, 669-676	1.3	61
20	High-pressure study of the structural and elastic properties of defect-chalcopyrite HgGa <sub>2</sub> Se <sub>4</sub> . <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 073510	2.5	24

19	Raman scattering study of bulk and nanocrystalline PbMoO <sub>4</sub> at high pressures. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 103510	2.5	17
18	High-pressure optical and vibrational properties of CdGa <sub>2</sub> Se <sub>4</sub> : Order-disorder processes in adamantine compounds. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 013518	2.5	36
17	Structural and vibrational study of cubic Sb <sub>2</sub> O <sub>3</sub> under high pressure. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	57
16	Structural and vibrational study of Bi <sub>2</sub> Se <sub>3</sub> under high pressure. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	115
15	Lattice dynamics of Sb <sub>2</sub> Te <sub>3</sub> at high pressures. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	81
14	High-pressure vibrational and optical study of Bi <sub>2</sub> Te <sub>3</sub> . <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	83
13	High-pressure Raman spectroscopy and lattice-dynamics calculations on scintillating MgWO <sub>4</sub> : Comparison with isomorphic compounds. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	61
12	The shape influence on the overall single scattering properties of a sample in random orientation. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2011</b> , 112, 1838-1847	2.1	10
11	High-pressure Raman scattering in wurtzite indium nitride. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 011908	3.4	15
10	The influence of particle shapes and sizes in the CO ice stretching mode. <i>Earth, Planets and Space</i> , <b>2010</b> , 62, 91-98	2.9	
9	Laboratory set-up for studying ices at the MIR and FIR region. <i>Planetary and Space Science</i> , <b>2009</b> , 57, 446-448		
8	Density of , and ices at different temperatures of deposition. <i>Planetary and Space Science</i> , <b>2008</b> , 56, 1748-1752		100
7	Infrared studies at the ice laboratory of Alcoy. <i>Planetary and Space Science</i> , <b>2008</b> , 56, 1744-1747	2	1
6	Comet dust as a size distribution of irregularly shaped, compact particles. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2007</b> , 106, 348-359	2.1	23
5	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> , <b>2006</b> , 100, 415-428	2.1	36
4	The scattering matrix for size distributions of irregular particles: An application to an olivine sample. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2006</b> , 100, 277-287	2.1	12
3	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> , <b>2004</b> , 88, 219-231	2.1	9
2	Irregular Particles in Comet C/1995 O1 Hale-Bopp Inferred from its Mid-Infrared Spectrum. <i>Astrophysical Journal</i> , <b>2003</b> , 595, 522-530	4.7	26

- 1 Engineering of lithium niobate domain structure through the off-centered Czochralski growth technique. *Journal of Crystal Growth*, **2002**, 237-239, 677-681 1.6 8