Ã“scar Gomis

List of Publications by Year
in descending order

88	2,750	159525 30	214721 47
papers	citations	h-index	g-index

90	90	90	2744
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-Pressure Synthesis of Î²- and Î±-In₂Se₃-Like Structures in Ga₂S₃. Chemistry of Materials, 2022, 34, 6068-6086.	3.2	3
2	Experimental and theoretical study of dense YBO3 and the influence of non-hydrostaticity. Journal of Alloys and Compounds, 2021, 850, 156562.	2.8	5
3	Structural, vibrational and electronic properties of Î±â€²-Ga₂S₃ under compression. Physical Chemistry Chemical Physics, 2021, 23, 6841-6862.	1.3	8
4	Transition path to a dense efficient-packed post-delafossite phase. Crystal structure and evolution of the chemical bonding. Journal of Alloys and Compounds, 2021, 867, 159012.	2.8	1
5	Pressure-induced band anticrossing in two adamantine ordered-vacancy compounds: CdGa2S4 and HgGa2S4. Journal of Alloys and Compounds, 2021, 886, 161226.	2.8	6
6	Pressure-induced orderâ€“disorder transitions in Î²-In₂S₃: an experimental and theoretical study of structural and vibrational properties. Physical Chemistry Chemical Physics, 2021, 23, 23625-23642.	1.3	3
7	Orpiment under compression: metavalent bonding at high pressure. Physical Chemistry Chemical Physics, 2020, 22, 3352-3369.	1.3	20
8	Phase Stability of Natural Ni_{0.75}Mg_{0.22}Ca_{0.03}CO₃ Gaspeite Mineral at High Pressure and Temperature. Journal of Physical Chemistry C, 2020, 124, 19781-19792.	1.5	9
9	Characterization and Decomposition of the Natural van der Waals SnSb₂Te₄ under Compression. Inorganic Chemistry, 2020, 59, 9900-9918.	1.9	31
10	Structural and Lattice-Dynamical Properties of Tb₂O₃ under Compression: A Comparative Study with Rare Earth and Related Sesquioxides. Inorganic Chemistry, 2020, 59, 9648-9666.	1.9	26
11	Vibrational properties of CdGa2S4 at high pressure. Journal of Applied Physics, 2019, 125, .	1.1	7
12	Elastic and thermodynamic properties of Î±-Bi2O3 at high pressures: Study of mechanical and dynamical stability. Journal of Physics and Chemistry of Solids, 2019, 124, 111-120.	1.9	16
13	Experimental and Theoretical Study of Bi₂O₂Se Under Compression. Journal of Physical Chemistry C, 2018, 122, 8853-8867.	1.5	46
14	Bandgap behavior and singularity of the domain-induced light scattering through the pressure-induced ferroelectric transition in relaxor ferroelectric AxBa1â€“xNb2O6 (A: Sr,Ca). Applied Physics Letters, 2018, 112, 042901.	1.5	6
15	High-pressure structural and vibrational properties of monazite-type BiPO₄, LaPO₄, CePO₄, and PrPO₄. Journal of Physics Condensed Matter, 2018, 30, 065401.	0.7	28
16	High-pressure structural, elastic, and thermodynamic properties of zircon-type HoPO₄and TmPO₄. Journal of Physics Condensed Matter, 2017, 29, 095401.	0.7	43
17	Pressure Impact on the Stability and Distortion of the Crystal Structure of CeScO₃. Inorganic Chemistry, 2017, 56, 8363-8371.	1.9	18
18	InBO3 and ScBO3 at high pressures: An ab initio study of elastic and thermodynamic properties. Journal of Physics and Chemistry of Solids, 2016, 98, 198-208.	1.9	8

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19	Vibrational and elastic properties of As4O6 and As4O6Â·2He at high pressures: Study of dynamical and mechanical stability. Journal of Applied Physics, 2016, 120, .	1.1	8
20	Structural, Vibrational, and Electronic Study of Sb₂S₃ at High Pressure. Journal of Physical Chemistry C, 2016, 120, 10547-10558.	1.5	73
21	High-Pressure Crystal Structure, Lattice Vibrations, and Band Structure of BiSbO₄. Inorganic Chemistry, 2016, 55, 4958-4969.	1.9	60
22	Structural, Vibrational, and Electronic Study of Î±-As₂Te₃ under Compression. Journal of Physical Chemistry C, 2016, 120, 19340-19352.	1.5	37
23	Structural, vibrational, and electrical study of compressed BiTeBr. Physical Review B, 2016, 93, .	1.1	25
24	Ordered helium trapping and bonding in compressed arsenolite: Synthesis of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">A</mml:mi><mml:msub><mml:mi mathvariant="normal">s</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>6</mml:mn></mml:msub><mml:mo>Â·</mml:mo><mml:mn>2</mml:mn><mml:mi>He</mml:mi></mml:mrow></mml:math>. Physical Review B, 2016, 93, .	1.1	29
25	Phase transitions in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î²</mml:mi><mml:mo>â€²</mml:mo><mml:mi mathvariant="normal">B</mml:mi><mml:msub><mml:mi mathvariant="normal">i</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>under compression: Optical and elastic properties and electron density topology analysis. Physical Review B,	1.1	16
26	Structural and electrical study of the topological insulator SnBi2Te4 at high pressure. Journal of Alloys and Compounds, 2016, 685, 962-970.	2.8	28
27	Pressure-induced amorphization of YVO₄:Eu³⁺nanoboxes. Nanotechnology, 2016, 27, 025701.	1.3	19
28	HgGa₂Se₄ under high pressure: An optical absorption study. Physica Status Solidi (B): Basic Research, 2015, 252, 2043-2051.	0.7	13
29	Synthesis and High-Pressure Study of Corundum-Type In₂O₃. Journal of Physical Chemistry C, 2015, 119, 29076-29087.	1.5	23
30	Experimental and Theoretical Investigations on Structural and Vibrational Properties of Melilite-Type Sr₂ZnGe₂O₇ at High Pressure and Delineation of a High-Pressure Monoclinic Phase. Inorganic Chemistry, 2015, 54, 6594-6605.	1.9	23
31	Crystal Structure of Sinhalite MgAlBO4 under High Pressure. Journal of Physical Chemistry C, 2015, 119, 6777-6784.	1.5	5
32	High-pressure structural phase transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MnWO</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 91, .	1.1	16
33	Exploring the high-pressure behavior of the three known polymorphs of BiPO4: Discovery of a new polymorph. Journal of Applied Physics, 2015, 117, .	1.1	55
34	High-pressure structural and elastic properties of Tl2O3. Journal of Applied Physics, 2014, 116, .	1.1	20
35	Room-temperature vibrational properties of multiferroic MnWO4 under quasi-hydrostatic compression up to 39â€‰GPa. Journal of Applied Physics, 2014, 115, 043510.	1.1	22
36	Structural and Vibrational Study of Pseudocubic CdIn₂Se₄ under Compression. Journal of Physical Chemistry C, 2014, 118, 26987-26999.	1.5	7

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37	Structural and elastic properties of defect chalcopyrite HgGa2S4 under high pressure. Journal of Alloys and Compounds, 2014, 583, 70-78.	2.8	32
38	Broadband, site selective and time resolved photoluminescence spectroscopic studies of finely size-modulated Y2O3:Eu3+ phosphors synthesized by a complex based precursor solution method. Current Applied Physics, 2014, 14, 72-81.	1.1	24
39	Pbca-Type In₂O₃: The High-Pressure Post-Corundum phase at Room Temperature.. Journal of Physical Chemistry C, 2014, 118, 20545-20552.	1.5	27
40	Isostructural Second-Order Phase Transition of Î²-Bi₂O₃ at High Pressures: An Experimental and Theoretical Study. Journal of Physical Chemistry C, 2014, 118, 23189-23201.	1.5	59
41	Structural and Vibrational Properties of CdAl₂S₄ under High Pressure: Experimental and Theoretical Approach. Journal of Physical Chemistry C, 2014, 118, 15363-15374.	1.5	8
42	Compressibility Systematics of Calcite-Type Borates: An Experimental and Theoretical Structural Study on ABO₃ (A = Al, Sc, Fe, and In). Journal of Physical Chemistry C, 2014, 118, 4354-4361.	1.5	22
43	Quasi-hydrostatic X-ray powder diffraction study of the low- and high-pressure phases of CaWO4 up to 28ÂGPa. Solid State Sciences, 2014, 36, 16-23.	1.5	18
44	Pressure effects on the vibrational properties ofÎ±-Bi₂O₃: an experimental and theoretical study. Journal of Physics Condensed Matter, 2014, 26, 225401.	0.7	21
45	$$mathrm{AB}_{2} ext {Se}_{4}$$ Ordered-Vacancy Compounds at High Pressures. Springer Series in Materials Science, 2014, , 163-184.	0.4	5
46	Lattice Dynamics Study of HgGa₂Se₄ at High Pressures. Journal of Physical Chemistry C, 2013, 117, 15773-15781.	1.5	21
47	X-ray diffraction study on pressure-induced phase transformations and the equation of state of ZnGa2Te4. Journal of Applied Physics, 2013, 114, .	1.1	37
48	High-pressure Raman scattering study of defect chalcopyrite and defect stannite ZnGa2Se4. Journal of Applied Physics, 2013, 113, 233501.	1.1	17
49	Vibrational study of HgGa2S4 under high pressure. Journal of Applied Physics, 2013, 113, .	1.1	23
50	Thermally activated cation ordering in ZnGa₂Se₄single crystals studied by Raman scattering, optical absorption, andab initiocalculations. Journal of Physics Condensed Matter, 2013, 25, 165802.	0.7	12
51	Structural study of Î±-Bi₂O₃under pressure. Journal of Physics Condensed Matter, 2013, 25, 475402.	0.7	42
52	Crystal structure of HgGa2Se4 under compression. Materials Research Bulletin, 2013, 48, 2128-2133.	2.7	18
53	Orderâ€“disorder processes in adamantine ternary orderedâ€vacancy compounds. Physica Status Solidi (B): Basic Research, 2013, 250, 1496-1504.	0.7	12
54	Phase Behavior of Ag₂CrO₄ under Compression: Structural, Vibrational, and Optical Properties. Journal of Physical Chemistry C, 2013, 117, 12239-12248.	1.5	23

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55	New Polymorph of InVO₄: A High-Pressure Structure with Six-Coordinated Vanadium. Inorganic Chemistry, 2013, 52, 12790-12798.	1.9	63
56	Synthesis of a Novel Zeolite through a Pressureâ€Induced Reconstructive Phase Transition Process. Angewandte Chemie - International Edition, 2013, 52, 10458-10462.	7.2	45
57	Highâ€pressure studies of topological insulators Bi₂Se₃, Bi₂Te₃, and Sb₂Te₃. Physica Status Solidi (B): Basic Research, 2013, 250, 669-676.	0.7	77
58	High-pressure study of the structural and elastic properties of defect-chalcopyrite HgGa2Se4. Journal of Applied Physics, 2013, 113, .	1.1	28
59	New high-pressure phase and equation of state of Ce2Zr2O8. Journal of Applied Physics, 2012, 111, .	1.1	23
60	High-pressure lattice dynamical study of bulk and nanocrystalline In2O3. Journal of Applied Physics, 2012, 112, .	1.1	55
61	Compressibility and structural stability of ultra-incompressible bimetallic interstitial carbides and nitrides. Physical Review B, 2012, 85, .	1.1	17
62	Raman scattering study of bulk and nanocrystalline PbMoO4 at high pressures. Journal of Applied Physics, 2012, 112, 103510.	1.1	22
63	High-pressure optical and vibrational properties of CdGa2Se4: Order-disorder processes in adamantine compounds. Journal of Applied Physics, 2012, 111, .	1.1	46
64	Compression of Silver Sulfide: X-ray Diffraction Measurements and Total-Energy Calculations. Inorganic Chemistry, 2012, 51, 5289-5298.	1.9	44
65	Complex high-pressure polymorphism of barium tungstate. Physical Review B, 2012, 86, .	1.1	66
66	High-pressure Raman spectroscopy and lattice-dynamics calculations on scintillating MgWO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>: Comparison with isostructural compounds. Physical Review B, 2011, 83, .	1.1	78
67	Structural and vibrational study of Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Se<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	1.1	138
68	Lattice dynamics of Sb<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Te<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	1.1	108
69	High-pressure vibrational and optical study of bismuth telluride. Physical Review B, 2011, 84, .	1.1	100
70	Production of Oxidants by Ion Bombardment of Icy Moons in the Outer Solar System. Advances in Astronomy, 2011, 2011, 1-10.	0.5	12
71	High-pressure study of the behavior of mineral barite by x-ray diffraction. Physical Review B, 2011, 84, .	1.1	71
72	High-pressure theoretical and experimental study of HgWO4. High Pressure Research, 2011, 31, 58-63.	0.4	1

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73	Nonlinear pressure dependence of the direct band gap in adamantine ordered-vacancy compounds. Physical Review B, 2010, 81, .	1.1	27
74	High-pressure structural and lattice dynamical study of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>HgWO</mml:mtext></mml:mrow><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2010, 82, .	1.1	11
75	Pressure-induced ab initio study of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ni</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Pd</mml:mtext></mml:mrow><mml:mn>2</mml:m	1.1	91
76	Theoretical and experimental study of the structural stability of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>TbPO</mml:mtext></mml:mrow><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> high pressures. Physical Review B, 2010, 81, .	1.1	46
77	The origin of sulfur-bearing species on the surfaces of icy satellites. Advances in Space Research, 2009, 43, 1442-1445.	1.2	17
78	Ion irradiation of H2O ice on top of sulfurous solid residues and its relevance to the Galilean satellites. Icarus, 2008, 194, 146-152.	1.1	20
79	H-implantation in SO2 and CO2 ices. Planetary and Space Science, 2008, 56, 1300-1308.	0.9	40
80	Infrared studies at the ice laboratory of Alcoy. Planetary and Space Science, 2008, 56, 1744-1747.	0.9	1
81	Ion irradiation of astrophysical ices. Journal of Physics: Conference Series, 2008, 101, 012002.	0.3	25
82	Hydrate sulfuric acid after sulfur implantation in water ice. Icarus, 2007, 192, 623-628.	1.1	39
83	Astrolaboratory in Alcoi for Astrobiology Studies. , 2006, , .		0
84	CO2 production by ion irradiation of H2O ice on top of carbonaceous materials and its relevance to the Galilean satellites. Icarus, 2005, 177, 570-576.	1.1	46
85	Production of Oxidants by Ion Irradiation of Water/Carbon Dioxide Frozen Mixtures. Astrobiology, 2005, 5, 612-621.	1.5	28
86	Hydrogen peroxide production by ion irradiation of thin water ice films. Astronomy and Astrophysics, 2004, 420, 405-410.	2.1	55
87	Hydrogen peroxide formation by ion implantation in water ice and its relevance to the Galilean satellites. Planetary and Space Science, 2004, 52, 371-378.	0.9	73
88	Implantation of carbon and nitrogen ions in water ice. Icarus, 2003, 164, 163-169.	1.1	53