

Rekha Rao

List of Publications by Year in descending order

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67
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1,016
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430754

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docs citations

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times ranked

1630
citing authors

#	ARTICLE	IF	CITATIONS
1	Compression tuned crystalline and amorphous phases of Gd ₂ Si ₂ O ₇ : Raman spectroscopic and first-principles studies. Journal of Alloys and Compounds, 2022, 890, 161864.	2.8	0
2	Structural stability and anharmonicity of phonon modes of metastable Zn ₄ V ₂ O ₉ : In-situ Raman spectroscopic investigation. Journal of Alloys and Compounds, 2022, 895, 162662.	2.8	5
3	Fine tuning of hydrogen bond strength in crystals: a case study of O-H-O hydrogen bond in ammonium substituted potassium dihydrogen phosphate. Molecular Physics, 2022, 120, .	0.8	1
4	Pressure-Induced Structural Behavior of Orthorhombic Mn ₃ (VO ₄) ₂ : Raman Spectroscopic and X-ray Diffraction Investigations. ACS Omega, 2022, 7, 3099-3108.	1.6	8
5	High-Pressure Properties of Wolframite-Type ScNbO ₄ . Journal of Physical Chemistry C, 2022, 126, 4664-4676.	1.5	14
6	Spatially selective nanoplasmonic response in Ag embedded GLAD TiO ₂ nanocomposite thin films. Optical Materials, 2022, 126, 112122.	1.7	1
7	Reversal of charge transfer direction at gold/copper phthalocyanine film interface on post deposition annealing: A vibrational spectroscopic study. Applied Surface Science, 2021, 542, 148743.	3.1	2
8	Investigations on performance of PEDOT : PSS / V ₂ O ₅ hybrid symmetric supercapacitor with redox electrolyte. Journal of Applied Polymer Science, 2021, 138, 50838.	1.3	7
9	Pressure effects on vibrational properties and structure of nanocrystalline Cu ₂ ZnSnS ₄ . Journal of Alloys and Compounds, 2021, 867, 159041.	2.8	3
10	Compression effect on structure of the Li-stabilized high-temperature phase of Mn ₃ (VO ₄) ₂ with composition Li _{0.2} Mn _{2.9} (VO ₄) ₂ - Raman spectroscopic and X-ray diffraction investigations. Journal of Alloys and Compounds, 2021, 870, 159418.	2.8	9
11	Effect of 6 MeV electron irradiation on nano-Cu ₂ ZnSnS ₄ . Journal of Materials Science: Materials in Electronics, 2021, 32, 19042-19051.	1.1	3
12	Interlayer coupling and diode characteristics of heterostructures of solution processed MoS ₂ :ReS ₂ nanocrystals. Applied Surface Science, 2020, 505, 144475.	3.1	6
13	Anomalous vibrational behavior of two dimensional tellurium: Layer thickness and temperature dependent Raman spectroscopic study. Applied Surface Science, 2020, 531, 147303.	3.1	10
14	Phonon-based partition of (ZnSe-like) semiconductor mixed crystals on approach to their pressure-induced structural transition. Scientific Reports, 2020, 10, 19803.	1.6	3
15	Investigation of electron-phonon interaction in bulk and nanoflakes of MoS ₂ using anomalous mode in the resonant Raman spectra. Journal of Applied Physics, 2020, 128, 165703.	1.1	5
16	Structural investigation of borosilicate glasses containing lanthanide ions. Scientific Reports, 2020, 10, 7835.	1.6	16
17	Pressure-induced instability of the fergusonite phase of EuNbO ₄ studied by <i>in situ</i> Raman spectroscopy, x-ray diffraction, and photoluminescence spectroscopy. Journal of Applied Physics, 2020, 127, .	1.1	14
18	Structural stability of Sc ₃ CrO ₆ : A Raman spectroscopic study. Journal of Raman Spectroscopy, 2020, 51, 1362-1371.	1.2	2

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19	Synthesis of nano-Cu ₂ CoSnS ₄ chalcogenide using microwave assist method. AIP Conference Proceedings, 2020, , .	0.3	0
20	Comparison of microwave and furnace melting for glasses to immobilise Fe-corrosion products. International Journal of Environmental Studies, 2019, 76, 1041-1049.	0.7	0
21	Order-disorder transition in Nano-Cu ₂ ZnSnS ₄ : A Raman spectroscopic study. Materials Science in Semiconductor Processing, 2019, 102, 104594.	1.9	13
22	Plasmon-Induced Dimerization of Thiazolidine-2,4-dione on Silver Nanoparticles: Revealed by Surface-Enhanced Raman Scattering Study. Journal of Physical Chemistry A, 2019, 123, 9770-9780.	1.1	10
23	Low operating voltage bistable memory characteristics of tellurium thin films. AIP Conference Proceedings, 2019, , .	0.3	0
24	Multi-phonon (percolation) behavior and local clustering of Cd _x Zn _{1-x} Se-cubic mixed crystals (x=0.3): A Raman ab initio study. Journal of Applied Physics, 2019, 126, .	1.1	5
25	Surface-enhanced Raman scattering based sensing of transurocanic acid, an epidermal photoreceptor using silver nanoparticles aided by density functional theoretical calculations. Journal of Raman Spectroscopy, 2019, 50, 837-846.	1.2	15
26	LiCrO ₂ Under Pressure: In-Situ Structural and Vibrational Studies. Crystals, 2019, 9, 2.	1.0	6
27	Symmetries of modes in Ni ₃ V ₂ O ₈ : Polarized Raman spectroscopy and ab initio phonon calculations. Journal of Raman Spectroscopy, 2019, 50, 587-594.	1.2	17
28	Copper Delafossites under High Pressure—A Brief Review of XRD and Raman Spectroscopic Studies. Crystals, 2018, 8, 255.	1.0	23
29	Effect of High Pressure on the Crystal Structure and Vibrational Properties of Olivine-Type LiNiPO ₄ . Inorganic Chemistry, 2018, 57, 10265-10276.	1.9	16
30	Synthesis Conditions on the Nature of GdBO ₃ Phase Formed. ChemistrySelect, 2018, 3, 7496-7506.	0.7	5
31	High Pressure Phases and Amorphization of a Negative Thermal Expansion Compound TaVO ₅ . Inorganic Chemistry, 2018, 57, 6973-6980.	1.9	7
32	Structure of TeO ₂ –LiNbO ₃ glasses. AIP Conference Proceedings, 2017, , .	0.3	1
33	Raman spectroscopy of Lithium modified Sodium Niobate at elevated temperature. Ferroelectrics, 2017, 510, 34-42.	0.3	6
34	Structural Stability and Anharmonicity of Pr ₂ Ti ₂ O ₇ : Raman Spectroscopic and XRD Studies. Inorganic Chemistry, 2016, 55, 11791-11800.	1.9	18
35	Raman spectroscopic investigation of H ₃ [Co(CN) ₆]: An anharmonicity study. AIP Conference Proceedings, 2016, , .	0.3	0
36	Multiferroic PVDF–Fe ₃ O ₄ hybrid films with reduced graphene oxide and ZnO nanofillers. RSC Advances, 2016, 6, 20089-20094.	1.7	51

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37	New insights into the compressibility and high-pressure stability of Ni(CN) ₂ : a combined study of neutron diffraction, Raman spectroscopy, and inelastic neutron scattering. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 045402.	0.7	6
38	Soft modes and anharmonicity in HCo_3 Raman spectroscopy and first-principles calculations. <i>Physical Review B</i> , 2015, 92, .	1.1	17
39	Raman and <i>ab initio</i> investigation of negative thermal expansion material TaVO ₅ : Insights into phase stability and anharmonicity. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	28
40	Raman spectroscopic studies of Pr ₂ Ti ₂ O ₇ at high pressures. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	3
41	Structural and electrical properties of layered perovskite type Pr ₂ Ti ₂ O ₇ : experimental and theoretical investigations. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4570-4584.	2.7	45
42	Raman spectroscopic studies of CuFeO ₂ at high pressures. <i>Vibrational Spectroscopy</i> , 2015, 81, 112-118.	1.2	35
43	High pressure Raman spectroscopic study of H ₃ Co(CN) ₆ . , 2014, , .		0
44	Phase transitions in delafossite CuLaO ₂ at high pressures. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	7
45	Raman spectroscopic investigations on transition metal dichalcogenides MX ₂ (M = Mo, W). <i>J. Phys. Chem. C</i> , 2014, 118, 10784-10791.	1.1	0.784
46	Pressure and temperature dependence of Raman spectra and their anharmonic effects in Bi ₂ Se ₃ single crystal. <i>Physica B: Condensed Matter</i> , 2014, 433, 72-78.	1.3	18
47	Uptake of hazardous radionuclides within layered chalcogenide for environmental protection. <i>Journal of Hazardous Materials</i> , 2014, 266, 94-101.	6.5	19
48	Vibrational properties and phonon anharmonicity in ZnS _{1-x} Se _x : Inelastic neutron scattering, Raman scattering, X-ray diffraction measurements and lattice dynamical studies. <i>Physica B: Condensed Matter</i> , 2014, 433, 149-156.	1.3	5
49	Photocatalytic hydrogen generation from water using a hybrid of graphene nanoplatelets and self doped TiO ₂ -Pd. <i>RSC Advances</i> , 2014, 4, 13469-13476.	1.7	18
50	Raman Spectroscopic Investigation of Thorium Dioxide-Uranium Dioxide (ThO ₂ -UO ₂) Fuel Materials. <i>Applied Spectroscopy</i> , 2014, 68, 44-48.	1.2	38
51	Copper(I) Oxide Nanocrystals - One Step Synthesis, Characterization, Formation Mechanism, and Photocatalytic Properties. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 2640-2651.	1.0	106
52	Raman spectroscopic studies on CeVO ₄ at high pressures. <i>Journal of Physics: Conference Series</i> , 2012, 377, 012010.	0.3	3
53	Improved photocatalytic activity of indium doped cadmium sulfide dispersed on zirconia. <i>Journal of Materials Chemistry</i> , 2011, 21, 16566.	6.7	52
54	Raman spectroscopic study of high-pressure behavior of $Ag_3[Co(CN)_6]$. <i>Physical Review B</i> , 2011, 84, .	1.1	21

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55	Radiation processing and characterization of poly(vinyl alcohol) nano-composites, Part 1: Nano-particulate filler tuned crosslinking behavior. Journal of Applied Polymer Science, 2010, 118, 3490-3498.	1.3	9
56	High pressure stability of bismuth sillenite: A Raman spectroscopic and x-ray diffraction study. Journal of Applied Physics, 2010, 108, 083508.	1.1	8
57	High pressure behavior of ZrGeO ₄ : A Raman spectroscopic and photoluminescence study. Journal of Applied Physics, 2009, 106, 123517.	1.1	8
58	Phase stability of YbVO ₄ under pressure: <i>In situ</i> x-ray and Raman spectroscopic investigations. Journal of Applied Physics, 2009, 106, .	1.1	35
59	High pressure Raman scattering study on the phase stability of LuVO ₄ . Journal of Solid State Chemistry, 2009, 182, 1879-1883.	1.4	45
60	Amorphization-decomposition behavior of HfW ₂ O ₈ at high pressure. Journal of Applied Physics, 2008, 104, 063506.	1.1	3
61	Pressure-induced amorphization and decomposition in ZrV ₂ O ₇ : A Raman spectroscopic study. Physical Review B, 2007, 75, .	1.1	31
62	High pressure behavior of $\hat{\Gamma}_2$ -NaVO ₃ : A Raman scattering study. Journal of Solid State Chemistry, 2007, 180, 2824-2829.	1.4	5
63	Phase transition and stability of thiourea:diethyloxalate (2:1) complex. Journal of Raman Spectroscopy, 2006, 37, 1447-1452.	1.2	1
64	Pressure-induced transitions in tetracyanoethylene: a Raman scattering study. Journal of Physics Condensed Matter, 2005, 17, 2633-2644.	0.7	10
65	Evidence for high-pressure polymorphism in resorcinol. Physical Review B, 2002, 65, .	1.1	45
66	High pressure Raman scattering studies on adamantane. Journal of Chemical Physics, 2000, 112, 6739-6744.	1.2	20
67	Raman study of phase transition in ferroelectric Ba _{0.95} Ca _{0.05} TiO ₃ . Pramana - Journal of Physics, 1996, 47, 145-150.	0.9	1