

Rekha Rao

List of Publications by Year in descending order

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67
papers

1,016
citations

430754

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times ranked

1630
citing authors

#	ARTICLE	IF	CITATIONS
1	Copper(I) Oxide Nanocrystals – One Step Synthesis, Characterization, Formation Mechanism, and Photocatalytic Properties. European Journal of Inorganic Chemistry, 2013, 2013, 2640-2651.	1.0	106
2	Raman spectroscopic investigations on transition metal dichalcogenides MX_2 (M = Mo, W). <i>J. Phys. Chem. C</i> , 2009, 113, 10000-10004.	1.2	92
3	Improved photocatalytic activity of indium doped cadmium sulfide dispersed on zirconia. <i>Journal of Materials Chemistry</i> , 2011, 21, 16566.	6.7	52
4	Multiferroic PVDF- Fe_3O_4 hybrid films with reduced graphene oxide and ZnO nanofillers. <i>RSC Advances</i> , 2016, 6, 20089-20094.	1.7	51
5	Evidence for high-pressure polymorphism in resorcinol. <i>Physical Review B</i> , 2002, 65, .	1.1	45
6	High pressure Raman scattering study on the phase stability of LuVO ₄ . <i>Journal of Solid State Chemistry</i> , 2009, 182, 1879-1883.	1.4	45
7	Structural and electrical properties of layered perovskite type $Pr_2Ti_2O_7$: experimental and theoretical investigations. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4570-4584.	2.7	45
8	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
9	Phase stability of YbVO ₄ under pressure: <i>in situ</i> x-ray and Raman spectroscopic investigations. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	35
10	Raman spectroscopic studies of CuFeO ₂ at high pressures. <i>Vibrational Spectroscopy</i> , 2015, 81, 112-118.	1.2	35
11	Pressure-induced amorphization and decomposition in ZrV ₂ O ₇ : A Raman spectroscopic study. <i>Physical Review B</i> , 2007, 75, .	1.1	31
12	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
13	Copper Delafossites under High Pressure – A Brief Review of XRD and Raman Spectroscopic Studies. <i>Crystals</i> , 2018, 8, 255.	1.0	23
14	Raman spectroscopic study of high-pressure behavior of $Ag_3[Co(CN)_6]$. <i>Physical Review B</i> , 2011, 84, .	1.1	21
15	High pressure Raman scattering studies on adamantane. <i>Journal of Chemical Physics</i> , 2000, 112, 6739-6744.	1.2	20
16	Uptake of hazardous radionuclides within layered chalcogenide for environmental protection. <i>Journal of Hazardous Materials</i> , 2014, 266, 94-101.	6.5	19
17	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
18	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

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19	Structural Stability and Anharmonicity of $\text{Pr}_2\text{Ti}_2\text{O}_7$: Raman Spectroscopic and XRD Studies. <i>Inorganic Chemistry</i> , 2016, 55, 11791-11800.	1.9	18
20	Soft modes and anharmonicity in H_3MnO Raman spectroscopy and first-principles calculations. <i>Physical Review B</i> , 2015, 92, .	1.1	17
21	Symmetries of modes in $\text{Ni}_3\text{V}_2\text{O}_8$: Polarized Raman spectroscopy and ab initio phonon calculations. <i>Journal of Raman Spectroscopy</i> , 2019, 50, 587-594.	1.2	17
22	Effect of High Pressure on the Crystal Structure and Vibrational Properties of Olivine-Type LiNiPO_4 . <i>Inorganic Chemistry</i> , 2018, 57, 10265-10276.	1.9	16
23	Structural investigation of borosilicate glasses containing lanthanide ions. <i>Scientific Reports</i> , 2020, 10, 7835.	1.6	16
24	Surface-enhanced Raman scattering based sensing of transurocanic acid, an epidermal photoreceptor using silver nanoparticles aided by density functional theoretical calculations. <i>Journal of Raman Spectroscopy</i> , 2019, 50, 837-846.	1.2	15
25	Pressure-induced instability of the fergusonite phase of EuNbO_4 studied by <i>in situ</i> Raman spectroscopy, x-ray diffraction, and photoluminescence spectroscopy. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	14
26	High-Pressure Properties of Wolframite-Type ScNbO_4 . <i>Journal of Physical Chemistry C</i> , 2022, 126, 4664-4676.	1.5	14
27	Order-disorder transition in Nano- $\text{Cu}_2\text{ZnSnS}_4$: A Raman spectroscopic study. <i>Materials Science in Semiconductor Processing</i> , 2019, 102, 104594.	1.9	13
28	Pressure-induced transitions in tetracyanoethylene: a Raman scattering study. <i>Journal of Physics Condensed Matter</i> , 2005, 17, 2633-2644.	0.7	10
29	Plasmon-Induced Dimerization of Thiazolidine-2,4-dione on Silver Nanoparticles: Revealed by Surface-Enhanced Raman Scattering Study. <i>Journal of Physical Chemistry A</i> , 2019, 123, 9770-9780.	1.1	10
30	Anomalous vibrational behavior of two dimensional tellurium: Layer thickness and temperature dependent Raman spectroscopic study. <i>Applied Surface Science</i> , 2020, 531, 147303.	3.1	10
31	Radiation processing and characterization of poly(vinyl alcohol) nano-composites, Part 1: Nano-particulate filler tuned crosslinking behavior. <i>Journal of Applied Polymer Science</i> , 2010, 118, 3490-3498.	1.3	9
32	Compression effect on structure of the Li-stabilized high-temperature phase of $\text{Mn}_3(\text{VO}_4)_2$ with composition $\text{Li}_{0.2}\text{Mn}_{2.9}(\text{VO}_4)_2$ - Raman spectroscopic and X-ray diffraction investigations. <i>Journal of Alloys and Compounds</i> , 2021, 870, 159418.	2.8	9
33	High pressure behavior of ZrGeO_4 : A Raman spectroscopic and photoluminescence study. <i>Journal of Applied Physics</i> , 2009, 106, 123517.	1.1	8
34	High pressure stability of bismuth sillenite: A Raman spectroscopic and x-ray diffraction study. <i>Journal of Applied Physics</i> , 2010, 108, 083508.	1.1	8
35	Pressure-Induced Structural Behavior of Orthorhombic $\text{Mn}_3(\text{VO}_4)_2$: Raman Spectroscopic and X-ray Diffraction Investigations. <i>ACS Omega</i> , 2022, 7, 3099-3108.	1.6	8
36	Phase transitions in delafossite CuLaO_2 at high pressures. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	7

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37	High Pressure Phases and Amorphization of a Negative Thermal Expansion Compound TaVO ₅ . Inorganic Chemistry, 2018, 57, 6973-6980.	1.9	7
38	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
39	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. Journal of Physics Condensed Matter, 2016, 28, 045402.	0.7	6
40	Raman spectroscopy of Lithium modified Sodium Niobate at elevated temperature. Ferroelectrics, 2017, 510, 34-42.	0.3	6
41	LiCrO ₂ Under Pressure: In-Situ Structural and Vibrational Studies. Crystals, 2019, 9, 2.	1.0	6
42	Interlayer coupling and diode characteristics of heterostructures of solution processed MoS ₂ :ReS ₂ nanocrystals. Applied Surface Science, 2020, 505, 144475.	3.1	6
43	High pressure behavior of $\hat{\pm}$ -NaVO ₃ : A Raman scattering study. Journal of Solid State Chemistry, 2007, 180, 2824-2829.	1.4	5
44	Vibrational properties and phonon anharmonicity in ZnS _{1-x} Se _x : Inelastic neutron scattering, Raman scattering, X-ray diffraction measurements and lattice dynamical studies. Physica B: Condensed Matter, 2014, 433, 149-156.	1.3	5
45	Synthesis Conditions on the Nature of GdBO ₃ Phase Formed. ChemistrySelect, 2018, 3, 7496-7506.	0.7	5
46	Multi-phonon (percolation) behavior and local clustering of Cd _x Zn _{1-x} Se-cubic mixed crystals (x=0.3): A Raman <i>ab initio</i> study. Journal of Applied Physics, 2019, 126, .	1.1	5
47	Investigation of electron-phonon interaction in bulk and nanoflakes of MoS ₂ using anomalous ω_{res} mode in the resonant Raman spectra. Journal of Applied Physics, 2020, 128, 165703.	1.1	5
48	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
49	Amorphization-decomposition behavior of HfW ₂ O ₈ at high pressure. Journal of Applied Physics, 2008, 104, 063506.	1.1	3
50	Raman spectroscopic studies on CeVO ₄ at high pressures. Journal of Physics: Conference Series, 2012, 377, 012010.	0.3	3
51	Raman spectroscopic studies of Pr ₂ Ti ₂ O ₇ at high pressures. AIP Conference Proceedings, 2015, , .	0.3	3
52	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
53	Pressure effects on vibrational properties and structure of nanocrystalline Cu ₂ ZnSnS ₄ . Journal of Alloys and Compounds, 2021, 867, 159041.	2.8	3
54	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

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55	Structural stability of Sc ₃ CrO ₆ : A Raman spectroscopic study. Journal of Raman Spectroscopy, 2020, 51, 1362-1371.	1.2	2
56	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
57	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
58	Phase transition and stability of thiourea:diethyloxalate (2:1) complex. Journal of Raman Spectroscopy, 2006, 37, 1447-1452.	1.2	1
59	Structure of TeO ₂ - LiNbO ₃ glasses. AIP Conference Proceedings, 2017, , .	0.3	1
60	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
61	Spatially selective nanoplasmonic response in Ag embedded GLAD TiO ₂ nanocomposite thin films. Optical Materials, 2022, 126, 112122.	1.7	1
62	High pressure Raman spectroscopic study of H ₃ Co(CN) ₆ . , 2014, , .		0
63	Raman spectroscopic investigation of H ₃ [Co(CN) ₆]: An anharmonicity study. AIP Conference Proceedings, 2016, , .	0.3	0
64	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
65	Low operating voltage bistable memory characteristics of tellurium thin films. AIP Conference Proceedings, 2019, , .	0.3	0
66	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
67	Synthesis of nano-Cu ₂ CoSnS ₄ chalcogenide using microwave assist method. AIP Conference Proceedings, 2020, , .	0.3	0