

Department of Physics, University of Jammu

Research Publications

2021

S. No	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal		
							Link to website of the Journal	Link to article/ paper/ abstract of the article	Is it listed in UGC Care list/Scopus /Web of Science /other, mention
3	Direct catalytic synthesis of beta-(C3) – substituted Pyrroles: A complementary addition to the Paal-Knorr Reaction	Amol Pawar, Jyothi Yadav, N.A. Mir, E. Lype, Rangan Krishnan, S. Anthal, <u>RAJNI KANT</u> , Indresh Kumar	Physics	RSC Chemical Communi- cations	2021	1359-734 5	<a href="https://www.rsc.org">https://www.rsc.org</a>	<a href="https://doi.org/10.1039/DOCC06357">https://doi.org/10.1039/DOCC06357</a>	Yes

4	Synthesis, Crystal Structure, Hirshfeld Surface, Energy Framework and Molecular Docking of 2-(((6-Methoxy pyridine 3-yl)imino)methyl) Phenol	Mulveer Singh, S. Anthal, P. Akhileshwari, M. A. Sridhar, H. M. Vinusha, S. Bindya, M. Begum,  R. K. Chandrasekaran, M. Saminathan, <u>RAJNI KANT*</u>	Physics	Global Journal of Science Frontier Research : Sect. B Chemistry	2021	2249-4626	<a href="https://www.globaljournals.org">https://www.globaljournals.org</a>	<a href="http://dx.doi.org/10.34257/GJSFRBVOL21IS2PG9">http://dx.doi.org/10.34257/GJSFRBVOL21IS2PG9</a>	No
5	Sequential Multicomponent Catalytic synthesis of pyrrole-3-carboxaldehydes: Evaluation of antibacterial and antigungal activities along with molecular docking	N.A. Mir, P. Ramaraju, S. Vanaparathi, S. Choudhary, R.P. Singh, P. Sharma, <u>RAJNI KANT</u>  Rajpal Singh, M. Sankaranarayanan, Indresh Kumar	Physics	New J Chem	2021	1144-0546	<a href="https://www.rsc.org">https://www.rsc.org</a>	<a href="https://doi.org/10.1039/D0NJ03575K">https://doi.org/10.1039/D0NJ03575K</a>	Yes

6	Centrality, transverse momentum and collision energy dependence of the Tsallis parameters in relativistic heavy-ion collisions	Rajendra Nath Patra, Bedangadas Mohanty, Tapan Nayak	Physics	<i>EPJ Plus</i>	2021	21905444	<a href="https://epjplus.epj.org/">https://epjplus.epj.org/</a>	<a href="https://doi.org/10.1140/epjp/s13360-021-01660-0">https://doi.org/10.1140/epjp/s13360-021-01660-0</a>	yes
7	First measurement of quarkonium polarization in nuclear collisions at the LHC	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 815 (2021) 136146	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136146"	yes
8	Transverse-momentum and event-shape dependence of D-meson flow harmonics in Pb–Pb collisions at $\sqrt{s_{NN}}= 5.02$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 813 (2021) 136054	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2020.136054"	yes
9	Elliptic Flow of Electrons from Beauty-Hadron Decays in Pb-Pb	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S.	Physics	<i>Phys.Rev.Lett.</i> 126 (2021) 16	2021	0031-9007	<a href="https://journals.aps.org/prl/">https://journals.aps.org/prl/</a>	doi = "10.1103/PhysRevLett.126.162001"	yes

	Collisions at $\sqrt{s_{NN}} = 5.02$ TeV	Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)							
10	$\Lambda$ K femtoscopy in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof. Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Rev.C</i> 103 (2021) 5	2021	2469-9985	<a href="https://journals.aps.org/prc">https://journals.aps.org/prc</a>	doi = "10.1103/PhysRevC.103.055201"	yes
11	Production of light-flavor hadrons in pp collisions at $\sqrt{s} = 7$ and $\sqrt{s} = 13$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof. Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Eur.Phys.J.</i> C 81 (2021) 3	2021	1434-6052	<a href="https://www.springer.com/journal/10052/">https://www.springer.com/journal/10052/</a>	doi = "10.1140/epjc/s10052-020-08690-5"	yes
12	Soft-Dielectron Excess in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof. Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE	Physics	<i>Phys.Rev.Lett.</i> 127 (2021) 4	2021	0031-9007	<a href="https://journals.aps.org/prl/">https://journals.aps.org/prl/</a>	doi = "10.1103/PhysRevLett.127.042302"	yes

		Collaboration)							
13	Measurement of isolated photon-hadron correlations in $\sqrt{s_{NN}} = 5.02$ TeV pp and p-Pb collisions	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Rev.C</i> 102 (2020) 4	2021	2469-9985	<a href="https://journals.aps.org/prc">https://journals.aps.org/prc</a>	doi = "10.1103/PhysRevC.102.044908"	yes
14	Pion-kaon femtoscopy and the lifetime of the hadronic phase in Pb–Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 813 (2021) 136030	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2020.136030"	
15	Centrality dependence of J/ $\psi$ and $\psi(2S)$ production and nuclear modification in p-Pb collisions at $\sqrt{s_{NN}} = 8.16$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>JHEP</i> 02 (2021) 002	2021	1029-8479	<a href="https://www.springer.com/journal/13130">https://www.springer.com/journal/13130</a>	doi = "10.1007/JHEP02(2021)002"	

16	Pseudorapidity distributions of charged particles as a function of mid- and forward rapidity multiplicities in pp collisions at $\sqrt{s} = 5.02, 7$ and $13$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Eur.Phys.J. C</i> 81 (2021) 7	2021	1434-6052	<a href="https://www.springer.com/journal/10052/">https://www.springer.com/journal/10052/</a>	doi = "10.1140/epjc/s10052-021-09349-5"	
17	$\Upsilon$ production and nuclear modification at forward rapidity in Pb–Pb collisions at $\sqrt{s_{NN}}=5.02$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 822 (2021) 136579	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136579"	
18	Jet-associated deuteron production in pp collisions at $\sqrt{s}=13$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 819 (2021) 136440	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136440"	
19	Production of muons from heavy-flavour hadron decays at	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S.	Physics	<i>Phys.Lett.B</i> 820 (2021)	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136558"	

	high transverse momentum in Pb–Pb collisions at $\sqrt{s_{NN}}=5.02$ and 2.76 TeV	Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)		136558					
20	Inclusive heavy-flavour production at central and forward rapidity in Xe–Xe collisions at $\sqrt{s_{NN}}=5.44$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 819 (2021) 136437	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136437"	
21	First measurement of coherent $\rho^0$ photoproduction in ultra-peripheral Xe–Xe collisions at $\sqrt{s_{NN}}=5.44$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 820 (2021) 136481	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136481"	
22	Multiharmonic Correlations of Different Flow Amplitudes in Pb-Pb Collisions at $\sqrt{s_{NN}}$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE	Physics	<i>Phys.Rev.Lett.</i> 127 (2021) 9	2021	0031-9007	<a href="https://journals.aps.org/prl/">https://journals.aps.org/prl/</a>	doi = "10.1103/PhysRevLett.127.092302"	

		Collaboration)							
23	Long- and short-range correlations and their event-scale dependence in high-multiplicity pp collisions at $\sqrt{s}=13$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>JHEP</i> 05 (2021) 290	2021	1029-8479	<a href="https://www.springer.com/journal/13130">https://www.springer.com/journal/13130</a>	doi = "10.1007/JHEP05(2021)290"	
24	Production of pions, kaons, (anti-)protons and $\phi$ mesons in Xe–Xe collisions at $\sqrt{s_{NN}} = 5.44$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Eur.Phys.J. C</i> 81 (2021) 7	2021	1434-6052	<a href="https://www.springer.com/journal/10052/">https://www.springer.com/journal/10052/</a>	doi = "10.1140/epjc/s10052-021-09304-4"	
25	First measurement of the $ \mathbf{t} $ -dependence of coherent $J/\psi$ photonuclear production	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 817 (2021) 136280	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136280"	
26	Coherent $J/\psi$ and $\phi$	Shreyasi	Physics	<i>Eur.Phys.J.</i>	2021	1434-6052	<a href="https://www.springer.com">https://www.springer.com</a>	doi =	



	photoproduction at midrapidity in ultra-peripheral Pb–Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV	Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)		<i>C</i> 81 (2021) 8			/journal/10052/	"10.1140/epjc/s10052-021-09437-6"	
27	Measurements of mixed harmonic cumulants in Pb–Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 818 (2021) 136354	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136354"	
28	Measurement of beauty and charm production in pp collisions at $\sqrt{s_{NN}} = 5.02$ TeV via non-prompt and prompt D mesons	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et al.,(ALICE Collaboration)		<i>JHEP</i> 05 (2021) 220	2021	1029-8479	<a href="https://www.springer.com/journal/13130">https://www.springer.com/journal/13130</a>	doi = "10.1007/JHEP05(2021)220"	
29	Energy dependence of $\phi$ meson production at forward rapidity in pp collisions at the LHC	Shreyasi Acharya,..... Prof. Anju Bhasin, Prof . Sanjeev S. Sambyal, Dr. Ramni Gupta.....et	Physics	<i>Eur.Phys.J.</i> <i>C</i> 81 (2021) 8	2021	1434-6052	<a href="https://www.springer.com/journal/10052/">https://www.springer.com/journal/10052/</a>	doi = "10.1140/epjc/s10052-021-09545-3"	

		al.,(ALICE Collaboration)							
30	Kaon–proton strong interaction at low relative momentum via femtoscopy in Pb–Pb collisions at the LHC	Shreyasi Acharya,.....Prof. Anju Bhasin,Prof . Sanjeev S. Sambyal,  Dr. Ramni Gupta.....et al.,(ALICE Collaboration)	Physics	<i>Phys.Lett.B</i> 822 (2021) 136708	2021	0370-2693	<a href="https://www.sciencedirect.com/journal/physics-letters-b">https://www.sciencedirect.com/journal/physics-letters-b</a>	doi = "10.1016/j.physletb.2021.136708"	
31	Invariant Jet Mass Measurements in pp Collisions at $\sqrt{s_{NN}}=200$ GeV at RHIC	Mohamed Abdallah,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Phys.Rev.D</i> 104 (2021) 5	2021	2470-0029	<a href="https://journals.aps.org/prd/">https://journals.aps.org/prd/</a>	10.1103/PhysRevD.104.052007	Yes
32	Azimuthal anisotropy measurements of strange and multistrange hadrons in U+U collisions at $\sqrt{s_{NN}}=193$ GeV at the BNL Relativistic Heavy Ion Collider	Mohamed Abdallah,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Phys.Rev.C</i> 103 (2021) 6	2021	2469-9993	<a href="https://journals.aps.org/prc">https://journals.aps.org/prc</a>	10.1103/PhysRevC.103.064907	yes

33	Longitudinal double-spin asymmetry for inclusive jet and dijet production in polarized proton collisions at $\sqrt{s_{NN}} = 200\text{GeV}$	Mohamed Abdallah,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Phys.Rev.D</i> 103 (2021) 9	2021	2470-0029	<a href="https://journals.aps.org/prd">https://journals.aps.org/prd</a>	10.1103/PhysRevD.103.L091103	yes
34	Cumulants and correlation functions of net-proton, proton, and antiproton multiplicity distributions in Au+Au collisions at energies available at the BNL Relativistic Heavy Ion Collider	Mohamed Abdallah,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Phys.Rev.C</i> 104 (2021) 2	2021	2469-9993	<a href="https://journals.aps.org/prc/">https://journals.aps.org/prc/</a>	10.1103/PhysRevC.104.024902	Yes
35	Global Polarization of $\Xi$ and $\Omega$ Hyperons in Au+Au Collisions at $\sqrt{s_{NN}} = 200\text{ GeV}$	Jaroslav Adam,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Phys.Rev.Lett.</i> 126 (2021) 16	2021	1079-7114	<a href="https://journals.aps.org/prl">https://journals.aps.org/prl</a>	10.1103/PhysRevLett.126.162301	Yes

36	Measurement of transverse single-spin asymmetries of $\pi^0$ and electromagnetic jets at forward rapidity in 200 and 500 GeV transversely polarized proton-proton collisions	Jaroslav Adam,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	Phys.Rev.D 103 (2021) 9	2021	2470-0029	<a href="https://journals.aps.org/prd">https://journals.aps.org/prd</a>	10.1103/PhysRevD.103.092009	yes
37	Comparison of transverse single-spin asymmetries for forward $\pi^0$ production in polarized pp, pAl and pAu collisions at nucleon pair c.m. energy	Jaroslav Adam,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	Phys.Rev.D 103 (2021) 7,	2021	2470-0029	<a href="https://journals.aps.org/prd">https://journals.aps.org/prd</a>	10.1103/PhysRevD.103.072005	yes
38	Measurements of W and Z/ $\gamma^*$ cross sections and their ratios in p+p collisions at RHIC	Jaroslav Adam,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	Phys.Rev.D 103 (2021) 1,	2021	2470-0029	<a href="https://journals.aps.org/prd">https://journals.aps.org/prd</a>	10.1103/PhysRevD.103.012001	yes

39	Flow and interferometry results from Au+Au collisions at $\sqrt{s_{NN}} = 4.5$ GeV	Jaroslav Adam,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Phys.Rev.C</i> 103 (2021) 3	2021	2469-9993	<a href="https://journals.aps.org/prc/">https://journals.aps.org/prc/</a>	10.1103/PhysRevC.103.034908	yes
40	Nonmonotonic Energy Dependence of Net-Proton Number Fluctuations	J. Adam,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Phys.Rev.Lett.</i> 126 (2021) 9,	2021	1079-7114	<a href="https://journals.aps.org/prl">https://journals.aps.org/prl</a>	10.1103/PhysRevLett.126.092301	yes
41	Methods for a blind analysis of isobar data collected by the STAR collaboration	J. Adam,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Nucl.Sci.Techn.</i> 32 (2021) 5	2021	2210-3147	<a href="https://www.springer.com/journal/">https://www.springer.com/journal/</a>	10.1007/s41365-021-00878-y	
42	Measurement of $e^+e^-$ Momentum and Angular Distributions from Linearly Polarized Photon Collisions	Jaroslav Adam,.....Prof. Anju Bhasin....et al.,(STAR Collaboration)	Physics	<i>Phys.Rev.Lett.</i> 127 (2021) 5	2021	1079-7114	<a href="https://journals.aps.org/prl">https://journals.aps.org/prl</a>	10.1103/PhysRevLett.127.052302	yes

43	One-Pot Assembly for Synthesis of 1,4-Dihydropyridine Scaffold and Their Biological Applications	Mayank G. Sharma, Juhee Pandya, Divyang M. Patel, Raturajsinh M. Vala, V. Ramkumar, Raghunandankumar Subramanian, Vivek K. Gupta, Ramesh L. Gardas, Anuradha Dhanasekaran, Hitendra M. Patel	Post-Graduate Department of Physics, University of Jammu	Polycyclic Aromatic Compounds	2021	15635333	<a href="https://www.tandfonline.com/toc/gpol20/current">https://www.tandfonline.com/toc/gpol20/current</a>	<a href="https://www.tandfonline.com/doi/full/10.1080/10406638.2019.1686401?casa_token=1ptenXA3qAwAAAAA%3ASqIf5tojDnnlYmUw1FocSQCIg-bWmgNcuGrl-nkDozhzzKdOf4L6Trgw70vtpoGX-X-YjNzKrN0F1A">https://www.tandfonline.com/doi/full/10.1080/10406638.2019.1686401?casa_token=1ptenXA3qAwAAAAA%3ASqIf5tojDnnlYmUw1FocSQCIg-bWmgNcuGrl-nkDozhzzKdOf4L6Trgw70vtpoGX-X-YjNzKrN0F1A</a>	Yes
44	<i>Camphor sulfonic acid catalyzed a simple, facile and general method for the synthesis of 2-arylbenzothiazoles, 2-arylbenzimidazoles and 3H-spiro[benzo[d]thiazole-2,3'-indolin]-2'-ones at room temperature.</i>	Gurpreet Kaur, Radha Moudgil, Mussarat Shamim, Vivek Kumar Gupta and Bubun Banerjee,	Post-Graduate Department of Physics, University of Jammu	<i>Synth. Commun.</i> ,	2021	0039-7911	<a href="https://www.tandfonline.com/toc/lsec20/current">https://www.tandfonline.com/toc/lsec20/current</a>	<a href="https://www.tandfonline.com/doi/full/10.1080/00397911.2020.1870043?casa_token=YnYUQzb-IT0AAAAA%3A9FQu1o8JTUfqIAVeUnJFEz-WNIYAfB4K0_Gxq7KC2tsXQE2i0moOwag4FB1WQ24ZaRrQSIObiL1Izw">https://www.tandfonline.com/doi/full/10.1080/00397911.2020.1870043?casa_token=YnYUQzb-IT0AAAAA%3A9FQu1o8JTUfqIAVeUnJFEz-WNIYAfB4K0_Gxq7KC2tsXQE2i0moOwag4FB1WQ24ZaRrQSIObiL1Izw</a>	

45	X-ray crystal structure analysis of 5-bromospiro[indoline-3,7'-pyrano[3,2-C:5,6-C']dichromene]-2,6',8'-trione.	Varun Sharma, Bubun Banerjee, Gurpreet Kaur and Vivek Kumar Gupta,	Post-Graduate Department of Physics, University of Jammu	<i>Eur. J. Chem.</i>	2021	2153-2249	<a href="https://www.eurjchem.com/index.php/eurjchem/index">https://www.eurjchem.com/index.php/eurjchem/index</a>	<a href="https://eurjchem.com/index.php/eurjchem/article/view/2086">https://eurjchem.com/index.php/eurjchem/article/view/2086</a>	Yes
46	<i>Mandelic acid: An efficient organo-catalyst for the synthesis of 3-substituted-3-hydroxy-indolin-2-ones and related derivatives in aqueous ethanol at room temperature</i>	Gurpreet Kaur, Rajat Kumar, Shivam Saroch, Vivek Kumar Gupta and Bubun Banerjee	Post-Graduate Department of Physics, University of Jammu	<i>Curr. Organocat.</i>	2021	2213-3372	<a href="https://benthamscience.com/journals/current-organocatalysis/">https://benthamscience.com/journals/current-organocatalysis/</a>	<a href="https://www.ingentaconnect.com/contentone/ben/cocat/2021/00000008/00000001/art00011">https://www.ingentaconnect.com/contentone/ben/cocat/2021/00000008/00000001/art00011</a>	Yes

47	Crystal structure, Hirshfeld surface analysis, and molecular docking studies of 3,3'-((4-(trifluoromethyl)phenyl)methylene)bis(1-methyl-1 <i>H</i> -indole)	Varun Sharma, Sanchari Begam, Indrajit Karmakar, G. Brahmachari, Vivek Kumar Gupta	Post-Graduate Department of Physics, University of Jammu	<i>Molecular Crystals and Liquid Crystals</i>	2021	1563-5287	<a href="https://www.tandfonline.com/toc/gmcl20/current">https://www.tandfonline.com/toc/gmcl20/current</a>	<a href="https://www.tandfonline.com/doi/abs/10.1080/15421406.2020.1852747">https://www.tandfonline.com/doi/abs/10.1080/15421406.2020.1852747</a>	Yes
48	4-Acylhydrazone-5-Pyrazolones and their Zinc(II) Metal Complexes: Synthesis, Characterization, Crystal Feature and Antimalarial Activity	Irfan Shaikh, R.N. Jadeja, Rajesh Patel, Vishal Mevada, Vivek Kumar Gupta	Post-Graduate Department of Physics, University of Jammu	Journal of Molecular Structure	2021	0022-2860	<a href="https://www.journals.elsevier.com/journal-of-molecular-structure">https://www.journals.elsevier.com/journal-of-molecular-structure</a>	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0022286021001824">https://www.sciencedirect.com/science/article/abs/pii/S0022286021001824</a>	Yes



49	Crystal structure, spectroscopic, DFT calculations and antimicrobial study of the Cu(II) complex bearing second-generation quinolone ofloxacin and 2,2'-bipyridine	Joshua Ayoola Obaleye, Vivek Kumar Gupta, Misitura Lawal, Rajendrasinh N.Jadeja, Hetal Roy, Ginikachukwu Grace Nnabuike, Mercy Oluwaseyi Bamigboye, Olaniyi Kamil Yusuff, Poonam Bhagariya	Post-Graduate Department of Physics, University of Jammu	Inorganica chimica Acta	2021	00201693	<a href="https://www.journals.elsevier.com/inorganica-chimica-acta">https://www.journals.elsevier.com/inorganica-chimica-acta</a>	<a href="https://www.sciencedirect.com/science/article/pii/S0020169321000207">https://www.sciencedirect.com/science/article/pii/S0020169321000207</a>	Yes
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50	Development of a straightforward and efficient protocol for the one-pot multicomponent synthesis of substituted alpha-aminoallyl phosphonates under catalyst-free condition	Brahmachari, G., Begam, S., Karmakar, I., Vivek Kumar Gupta	Post-Graduate Department of Physics, University of Jammu	Phosphorus, Sulfur and Silicon and the Related Elements	2021	1042-6507	<a href="https://www.tandfonline.com/toc/gpss20/current">https://www.tandfonline.com/toc/gpss20/current</a>	<a href="https://www.tandfonline.com/doi/abs/10.1080/10426507.2021.1920593">https://www.tandfonline.com/doi/abs/10.1080/10426507.2021.1920593</a>	Yes
51	Quasiparticle structure of low-lying yrast energy levels and $\gamma$ -bands in $^{164-174}\text{Hf}$ nuclei	VeertaRani ., , Suram Singh ., ManviRajput ., PreetiVerma, Arun Bharti ., G. H. Bhat ., J. A. Sheikh	Physics	European Physical Journal A	2021	1434-601X	<a href="https://www.springer.com/journal/10050">https://www.springer.com/journal/10050</a>	<a href="https://link.springer.com/article/10.1140/epja/s10050-021-00583-9">https://link.springer.com/article/10.1140/epja/s10050-021-00583-9</a>	Yes

52	Systematic investigation of $\gamma$ -band structure of triaxial even-even neutron-deficient Os nuclei	Rajat Gupta ., Amit Kumar ., Suram Singh ., Arun Bharti ., G.H. Bhat ., J.A. Sheikh	Physics	Chinese Journal of Physics	2021	0577-9073	<a href="https://www.journals.elsevier.com/chinese-journal-of-physics">https://www.journals.elsevier.com/chinese-journal-of-physics</a>	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0577907321001027">https://www.sciencedirect.com/science/article/abs/pii/S0577907321001027</a>	Yes
53	Structural evolution of yrast and near-yrast bands in even-even Pd isotopes using a self-consistent approach	Ridham Bakshi ., Surbhi Gupta ., Suram Singh ., Amit Kumar ., Arun Bharti ., G. H. Bhat ., J. A. Sheikh .,	Physics	European Physical Journal Plus	2021	2190-5444	<a href="https://www.springer.com/journal/13360">https://www.springer.com/journal/13360</a>	<a href="https://link.springer.com/article/10.1140/epjp/s13360-020-01004-4">https://link.springer.com/article/10.1140/epjp/s13360-020-01004-4</a>	Yes
54	A detailed study of nuclear structure of odd-mass Pm	VeertaRani ., Amit Kumar ., Suram Singh ., ManviRajput ., Arun Bharti ., G.	Physics	European Physical Journal Plus	2021	2190-5444	<a href="https://www.springer.com/journal/13360">https://www.springer.com/journal/13360</a>	<a href="https://link.springer.com/article/10.1140/epjp/s13360-020-00974-9">https://link.springer.com/article/10.1140/epjp/s13360-020-00974-9</a>	Yes

	isotopes near N = 82 shell closure	H. Bhat ., J. A. Sheikh .,							
55	Structural, spectroscopic, thermal, electrical and mechanical properties of lanthanum chloride coordinated with salicylic acid and lanthanum chloride coordinated with glycine and salicylic acid complexes	Harjinder Singh, Bindu Raina, K. K. Bamzai	Department of Physics	Journal of Materials Science: Materials in Electronics	2021	0957-4522	<a href="https://www.springer.com/journal/10854">https://www.springer.com/journal/10854</a>	10.1007/s10854-021-05574-6	Scopus
56	Microscopic study of structure of light and medium mass even-even cadmium isotopes	Shivali Sharma, Rani Devi and S.K. Khosa	Physics	Physical Review C	2021	2469-9985 (print) 2469-9993 (online)	<a href="https://journals.aps.org/prc/">https://journals.aps.org/prc/</a>	<a href="https://doi.org/10.1103/PhysRevC.103.064312">https://doi.org/10.1103/PhysRevC.103.064312</a>	UGC Care list/Scopus/ Web of Science
57	Structural and spectral studies of Ce <sup>3+</sup> doped Sr <sub>3</sub> Y(BO <sub>3</sub> ) <sub>3</sub> Nano	SP Hargunani, RP Sonekar, A Singh, A Khosla, S Arya	Physics	Materials Technology : Advanced	2021	1066-7857	<a href="https://www.tandfonline.com/toc/yimte20/current">https://www.tandfonline.com/toc/yimte20/current</a>	<a href="https://www.tandfonline.com/doi/abs/10.1080/10667857.2020.1859052?journalCode=yimte20">https://www.tandfonline.com/doi/abs/10.1080/10667857.2020.1859052?journalCode=yimte20</a>	

	phosphors prepared by combustion synthesis			Performance Materials					
58	Performance Analysis, Challenges and Future Perspectives of Nickel Based Nanostructured Electrodes for Electrochemical Supercapacitors	S Verma, S Arya, V Gupta, S Mahajan, H Furukawa, A Khosla	Physics	Journal of Materials Research and Technology	2021	2238-7854	<a href="https://www.journals.elsevier.com/journal-of-materials-research-and-technology">https://www.journals.elsevier.com/journal-of-materials-research-and-technology</a>	<a href="https://www.sciencedirect.com/science/article/pii/S2238785421000272">https://www.sciencedirect.com/science/article/pii/S2238785421000272</a>	
59	Recent Advances in tin oxide nanomaterials as electrochemical/chemiresistive sensors	A Sharma, A Ahmed, A Singh, S.K Oruganti, A Khosla, S Arya	Physics	Journal of the Electrochemical Society	2021	0013-4651	<a href="https://iopscience.iop.org/journal/1945-7111">https://iopscience.iop.org/journal/1945-7111</a>	<a href="https://iopscience.iop.org/article/10.1149/1945-7111/abdee8">https://iopscience.iop.org/article/10.1149/1945-7111/abdee8</a>	
60	Influence of Processing Parameters to Control Morphology and Optical Properties of Sol-Gel Synthesized ZnO Nanoparticles	Sandeep Arya, Prerna Mahajan, Sarika Mahajan, Ajit Khosla, Ram Datt, Vinay Gupta, Sheng-Joue Young, Sai Kiran Oruganti	Physics	ECS Journal of Solid State Science and Technology	2021	2162-8769	<a href="https://iopscience.iop.org/journal/2162-8777">https://iopscience.iop.org/journal/2162-8777</a>	<a href="https://iopscience.iop.org/article/10.1149/2162-8777/abe095">https://iopscience.iop.org/article/10.1149/2162-8777/abe095</a>	
61	Recent progress, fabrication challenges and stability issues of	Prerna Mahajan, Ram Datt, Wing C Tsoi, Vinay Gupta,	Physics	Coordination Chemistry Reviews	2021	0010-8545	<a href="https://www.sciencedirect.com/journal/coordination-chemistry-reviews">https://www.sciencedirect.com/journal/coordination-chemistry-reviews</a>	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0010854520305920">https://www.sciencedirect.com/science/article/abs/pii/S0010854520305920</a>	

	lead-free tin-based perovskite thin films in the field of photovoltaics	Amit Tomar, Sandeep Arya							
62	Investigating photoluminescence properties of Eu <sup>3+</sup> doped CaWO <sub>4</sub> nanoparticles via Bi <sup>3+</sup> amalgamation for w-LEDs application	M Singh, W Haq, S Bishnoi, BP Singh, S Arya, A Khosla, V Gupta	Physics	Materials Technology : Advanced Performance Materials	2021	1066-7857	<a href="https://www.tandfonline.com/toc/ynte20/current">https://www.tandfonline.com/toc/ynte20/current</a>	<a href="https://www.tandfonline.com/doi/abs/10.1080/10667857.2021.1918866">https://www.tandfonline.com/doi/abs/10.1080/10667857.2021.1918866</a>	
63	Investigating the thermographical effect on optical properties of Eu doped Y <sub>2</sub> O <sub>3</sub> :TiO <sub>2</sub> nanocomposite synthesized via sol-gel method	A Ahmed, A Singh, A Sharma, P Mahajan, S Verma, S Mahajan, S Arya	Physics	Solid State Sciences	2021	1293-2558	<a href="https://www.journals.elsevier.com/solid-state-sciences">https://www.journals.elsevier.com/solid-state-sciences</a>	<a href="https://www.sciencedirect.com/science/article/abs/pii/S1293255821000856">https://www.sciencedirect.com/science/article/abs/pii/S1293255821000856</a>	
64	Sol-Gel synthesized carbon nanoparticles as supercapacitor electrodes with ultralong cycling stability	S Verma, B Padha, A Singh, S Khajuria, A Sharma, P Mahajan, B Singh, S Arya	Physics	Fullerenes, Nanotubes and Carbon Nanostructures	2021	1536-383X	<a href="https://www.tandfonline.com/toc/lfnn20/current">https://www.tandfonline.com/toc/lfnn20/current</a>	<a href="https://www.tandfonline.com/doi/abs/10.1080/1536383X.2021.1928645?journalCode=lfnn20">https://www.tandfonline.com/doi/abs/10.1080/1536383X.2021.1928645?journalCode=lfnn20</a>	
65	Promising photocatalytic degradation of Methyl Orange dye	A Singh, A Ahmed, A Sharma, C Sharma, S Paul, A	Physics	Physica B: Condensed Matter	2021	0921-4526	<a href="https://www.journals.elsevier.com/physica-b-condensed-matter">https://www.journals.elsevier.com/physica-b-condensed-matter</a>	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0921452621003094">https://www.sciencedirect.com/science/article/abs/pii/S0921452621003094</a>	

	via sol-gel synthesized Ag-CdS@Pr-TiO <sub>2</sub> core/shell nanoparticles	Khosla, V Gupta, S Arya							
66	4D Printing: Fundamentals, Materials, Applications and Challenges	A Ahmed, S Arya, V Gupta, H Furukawa, A Khosla	Physics	Polymer	2021	0032-3861	<a href="https://www.journals.elsevier.com/polymer">https://www.journals.elsevier.com/polymer</a>	<a href="https://www.sciencedirect.com/science/article/pii/S0032386121005498">https://www.sciencedirect.com/science/article/pii/S0032386121005498</a>	
67	Preparation of Cotton fabric based non-invasive colorimetric sensor for instant detection of ketones	A Sharma, A Singh, A Khosla, S Arya	Physics	Journal of Saudi Chemical Society	2021	1319-6103	<a href="https://www.journals.elsevier.com/journal-of-saudi-chemical-society">https://www.journals.elsevier.com/journal-of-saudi-chemical-society</a>	<a href="https://www.sciencedirect.com/science/article/pii/S1319610321001459">https://www.sciencedirect.com/science/article/pii/S1319610321001459</a>	
68	Recent Advances in Electrochemical Biosensors: Applications, Challenges, and Future Scope	A Singh, A Sharma, A Ahmed, AK Sundramoorthy, H Furukawa, S Arya, A Khosla	Physics	BIOSENSORS-BASEL	2021	2079-6374	<a href="https://www.mdpi.com/journal/biosensors">https://www.mdpi.com/journal/biosensors</a>	<a href="https://www.mdpi.com/2079-6374/11/9/336">https://www.mdpi.com/2079-6374/11/9/336</a>	
69	Highly stable self-charging piezoelectric (Rochelle salt) driven supercapacitor based on Ni nanowires	S Verma, S Arya, V Gupta, A Khosla	Physics	Chemical Engineering Journal	2021	1385-8947	<a href="https://www.sciencedirect.com/journal/chemical-engineering-journal">https://www.sciencedirect.com/journal/chemical-engineering-journal</a>	<a href="https://www.sciencedirect.com/science/article/abs/pii/S1385894721021537">https://www.sciencedirect.com/science/article/abs/pii/S1385894721021537</a>	

70	Recent Progress in Advanced Organic Photovoltaics: Emerging Techniques and Materials	T Sharma, P Mahajan, MA Afroz, A Singh, NK Yukta, Tailor, S Purohit, S Verma, B Padha, V Gupta, S Arya, S Satapathi	Physics	ChemSusChem	2021				
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