

Brief Profile

Name : Upasana Rani

Date of Birth : 21/04/1997

Educational Qualification

• *Ph.D.* : Pursuing
• *M.Tech* :
• *B.Tech* :

Work Experience

• *Teaching* :
• *Research / Industry* : 2

E-mail ID : upasana.rani@miet.ac.in

Contact No. : 9193991956

Area of Interest : Engineering Physics

Teaching

• *Subjects Taught at UG Level* :
• *Subjects Taught at PG Level* :

Research Guidance

• *B.Tech* :
• *M.Tech* :
• *Ph.D.* :

Research Publications

• *Journals* : 7
• *Conferences* : 0
• *Book Chapters* : 0

Patent/IPR : 0
(*Books Published etc.*)

No. of National/International Conferences attended/ Paper Presented : 3

No. of Conferences Organized : 0

STC/FDP/Seminars/Workshops Organized : 0

STC/FDP/Summer/Winter Schools/Workshops /Seminars attended : 12

Certification Courses (NPTEL etc.) :

Memberships of the Professional Societies :

Awards/Honors : INSPIRE Scholar

Funded Project :

Name of Project	Funding Agency	Duration

Any other relevant Information :

LIST OF PUBLICATIONS

Journal:

1. J. Kumari, S. Tomar, Sukhendra, B.L. Choudhary, **U. Rani**, A.S. Verma, Fundamental physical properties of LiInS_2 and LiInSe_2 chalcopyrite structured solids, *East. Eur. J. Phys.* **3** (2021) 62-69.
2. P.K. Kamlesh, R. Agrawal, **U. Rani** and A.S. Verma, Comprehensive ab-initio calculations of AlNiX ($X = \text{P, As and Sb}$) half-Heusler compounds: Stabilities and applications as green energy resources, *Mater. Chem. Phys.* **275** (2022) 125233. **I.F.-4.094.**
3. P.K. Kamlesh, R. Agarwal, **U. Rani** and A.S. Verma, First-principles calculations of inherent properties of Rb based state-of-the-art half-Heusler compounds: Promising materials for renewable energy applications, *Phys. Scr.* **96** (2021) 115802. **I.F.-2.487.**
4. **U. Rani**, P.K. Kamlesh, R. Agarwal, J. Kumari and A.S. Verma, Electronic and thermo-physical properties of double antiperovskites X_6SOA_2 ($X = \text{Na, K and A} = \text{Cl, Br, I}$): A non-toxic and efficient energy storage materials, *Int. J. Quantum Chem.* **121** (2021) e26759. **I.F.-2.444.**
5. **U. Rani**, P.K. Kamlesh, A. Shukla and A.S. Verma, Emerging potential antiperovskite materials ANX_3 ($A = \text{P, As, Sb, Bi; X} = \text{Sr, Ca, Mg}$) for thermoelectric renewable energy generators, *J. Solid State Chem.* **300** (2021) 122246. **I.F.-3.498.**
6. S. Pachori, R. Agarwal, A. Shukla, **U. Rani** and A.S. Verma, Mechanically stable with highly absorptive formamidinium lead halide perovskites $[(\text{HC}(\text{NH}_2)_2\text{PbX}_3; X = \text{Br, Cl})]$: Recent advances and perspectives, *Int. J. Quantum Chem.* **121** (2021) 26671. **I.F.-2.444.**
7. **U. Rani**, Y. Soni, P.K. Kamlesh, S. Pachori and A.S. Verma, Fundamental theoretical design of Na-ion and K-ion based double antiperovskite X_6SOA_2 ($X = \text{Na, K; A} = \text{Cl, Br and I}$) halides: Potential candidate for energy storage and harvester, *Int. J. Energy Res.* **45** (2021) 13442-13460. **I.F.-5.164.**

Books / Book Chapters:

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Conferences:

1. Attended an *International Virtual Conference on "Modern Instrumental and Characterization Techniques in Applied Sciences (MICTAS-2020)"* Organized by MIET Haldwani & Department of Chemistry, H.N.B. Govt. P. G. College, Khatima, Uttarakhand in collaboration with USERC DST Dehradun & Department of Chemistry, R.H. Govt. P. G. College, Kashipur, Uttarakhand in July 2020.