

APPENDIX B

List of Publications

B.1 Related to Thesis

1. "Volume expansive pressure (VEP) driven non-trivial topological phase transition in *LiMgBi*",
Raghottam M Sattigeri et.al., *Phys. Chem. Chem. Phys.*, **22**, 4602-4609 (2020)
2. "A first-principles Investigation Of Topological Phase Transition In Half-Heusler *LiMgSb* Driven By Volume Expansive Pressure",
Raghottam M Sattigeri et.al., *AIP Conference Proceedings*, Vol. **2265**, No. 1, p. 030020 (2020)
3. "Towards the dimensional engineering of a strong Topological Insulator",
Raghottam M Sattigeri and Prafulla K Jha. *Sci. Rep.*, **11**(1), 1-10 (2021) (Received full waiver)
4. "Emergence of $-s, -p-d$ band inversion in zincblende gold iodide topological insulator and its thermoelectric properties",
Raghottam M Sattigeri et.al., *J. Condens. Matter Phys.*, **33**(15), 155402 (2021)
5. "Functionalized Tellurene; a candidate large-gap 2D Topological Insulator",
Raghottam M Sattigeri and Prafulla K Jha. *J. Condens. Matter Phys.*, **34**(8), 08LT01 (2021)
6. "Topological Insulating Phase In Two-Dimensional Selenene Sulphide: A DFT Study",
Raghottam M Sattigeri et.al., *Proceedings of the 65th DAE Solid State Physics Symposium*, **55**, 849-850 (2021)
7. "Investigation of Topological and Catalytic properties of Gold Iodide (*AuI*) monolayer: A Density Functional Theory Study",
Raghottam M Sattigeri et.al., *Phys. Status Solidi - Rapid Res. Lett.*, **16**(5), 2100657

(2022) (*Invited contribution to 15th anniversary edition of PSS-RRL; Cover-art selected as issue cover with full waiver.*)

8. "Two dimensional LiMgAs: A topological quantum catalyst for hydrogen evolution reaction",

Raghottam M Sattigeri et.al., *Appl. Phys. Lett.*, **121**, 123101 (2022)

B.2 Other than Thesis

1. "Underwater Nuclear Reactor Design (UNRD) for safe and clean energy production", **Raghottam M Sattigeri**, *Proceedings of the International Conference on High Energy Radiation and Applications (ICHERA)*, **RN: 49055122**, IAEA, International Nuclear Information System (2017)

2. "Action Potential: A Vortex Phenomena; Driving Membrane Oscillations", **Raghottam M Sattigeri**, *Front. Comput. Neurosci.* **14**:21 (2020) (Received full waiver)

3. "Superior Room-Temperature Ammonia Sensing Using a Hydrothermally Synthesized MoS₂/SnO₂ Composite", Sukhwinder Singh, **Raghottam M Sattigeri**, et.al., *ACS Omega*, **6**(17), 11602-11613 (2021)

4. "Strain Driven Electronic Topological Transition in Half-Heusler LiCdAs: A Cubic Symmetry Breaking Approach", Bhautik R Dhori, **Raghottam M Sattigeri**, et.al., *Proceedings of the 65th DAE Solid State Physics Symposium*, **55**, 849-850 (2021)

5. "A first-principles investigation of pressure induced topological phase transition in Half-Heusler AgSrBi", Bhautik R Dhori, **Raghottam M Sattigeri**, et.al., *Mater. Adv.*, **3**, 3938-3944 (2022)

6. "Defect Induced Optical Properties of Ar⁺ Irradiated MoS₂ and MoSe₂", Madhavi H. Dalsaniya, ..., **Raghottam M. Sattigeri**, et.al., Available at SSRN, **4078387** (2022)

