

### **Last 5 years publication details**

1. Gunavathy K V, Tamilarasan K, Rangasami C, Arulanantham AMS, "Solution processed copper zinc tin sulfide thin films for thermoelectric device applications", *Ceramics International*, August 2020, <https://doi.org/10.1016/j.ceramint.2020.07.338>
2. Gunavathy K V, Tamilarasan K, Rangasami C, Arulanantham AMS, "Investigations on copper zinc tin sulfide thin films grown through nebulizer assisted spray pyrolysis technique", *International Journal of Energy Research*, May 2020, doi:10.1002/er.5451
3. K. V. Gunavathy, K. Tamilarasan, C. Rangasami, A.M.S.Arulanantham,"Effect of Solvent on the Characteristic Properties of Nebulizer Spray Pyrolyzed  $\text{Cu}_2\text{ZnSnS}_4$  Absorber Thin Films for Photovoltaic Application", *Thin Solid Films*, Vol.697, 137841 March 2020.
4. Gunavathy K V, Parthibaraj V, Rangasami C, Tamilarasan K., "Effect of Spray Volume on the properties of  $\text{Cu}_2\text{ZnSnS}_4$  Absorber Thin Film fabricated through Nebulizer Assisted Spray Pyrolysis Technique", *Materials Research Express*, Vol.6, No.10, P 106434, Sep 2019.
5. K. V. Gunavathy, K. Tamilarasan, C. Rangasami, A.M.S.Arulanantham,"A review on growth optimization of spray pyrolyzed  $\text{Cu}_2\text{ZnSnS}_4$  chalcogenide absorber thin film", *International Journal of Energy Research*,1 -39, July 2019. <https://doi.org/10.1002/er.4693>.
6. K. V. Gunavathy, K. Tamilarasan, C. Rangasami, V. Parthibaraj., "Influence of substrate temperature on the properties of nebulizer sprayed CZTS absorber thin film for photovoltaic applications", *AIP Conference Proceedings of DAE-SSPS 2018*, 2115, 030563 (1- 4), July 2019.
7. Rangasami, C., "Crystal structure of  $\text{Sb}_8\text{Te}_3$  and  $\text{Sb}_{10}\text{Te}_3$ , AIP conf. Proceedings of DAE-SSPS 2018, 2115, 030004 (1-4), July 2019.
8. Rangasami, C., "Vibrational modes of  $\text{AgIn}_3\text{Te}_5$  and effect of laser irradiation", *Vibrational Spectroscopy*, 97, pp 66-73, Jan 2018.
9. Rangasami, C., "Effect of laser irradiation on  $\text{Ag}_4\text{In}_{12}\text{Sb}_{56}\text{Te}_{28}$ ", *AIP conf. Proceedings of DAE-SSPS 2017*, 942, 080031(1-4),
10. Santhiya, M., Pugazhavadivu, K.S, Tamilarasan, K., Rangasami, C., "Influence of sputtering power on the structure and electrical properties

- of Bi<sub>2</sub>Fe<sub>4</sub>O<sub>9</sub> thin films", *Acta Metallurgica Sinica (English Letters)*, vol 30, Issue 7, pp 650–658.
11. Rangasami, C., "Phase preference in some Ag-In-Sb-Te alloys", AIP conf. Proceedings of DAE-SSPS 2016, December 2016, 1832, 14008(1-3).
  12. Gunavathy, K. V., Parthibaraj, V., Rangasami, C., Tamilarasan, K., "Prospects of alternate buffer layers for CZTS based thin films solar cells from Numerical Analysis – A Review", *South Asian Journal of Engineering and Technology*, 2, pp. 88–96, March 2016.
  13. Srinivasan, V., Rangasami, C., Kannan, J. C., "Synthesis, structure and optical properties of ZnO nanoparticles", *Applied Engineering research*, 10, pp. 343-345, July 2015.
  14. Parthibaraj, V., Tamilarasan, K., Pugazhivadivu, K S., Rangasami, C., "Growth and Characterization of Cu<sub>2</sub>ZnSnS<sub>4</sub> Thin Film by RF-Magnetron Sputtering", *International Journal of Innovative Research in Science, Engineering and Technology*, 2, 670-675. February 2015.
  15. Rangasami, C., "Non-equilibrium Phases Formed in Cu–In–Se– Te System Synthesized by Melt-Quench Method", *Acta Metallurgica Sinica, English Letters*, 28, 567-577, February 2015.