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Author's Publications

Thesis Publications

1. **J. S. Rana**, and S. Jit, “**A Low-Cost Solution Processed PTB7 based MSM Visible Photodetector**”, *IEEE Trans. Electron Devices*, vol. 71, no. 2, pp. 1208-1213, Feb. 2024, doi: 10.1109/TED.2023.3344547.
2. **J. S. Rana**, S. Das, and S. Jit, “**Highly Responsive Al/PTB7/Si/Al Vertical Structure Based White Light Photodetector using FTM Method**,” *IEEE Photon. Technol. Lett.*, vol. 35, no. 14, pp. 765–768, May. 2023, doi: 10.1109/LPT.2023.3277030.
3. **J. S. Rana**, S. Das, and S. Jit, “**PTB7 Decorated ZnO-Nanorod-Based Room-Temperature Ammonia Gas Sensor**,” *IEEE Sens. J.*, vol. 22, no. 23, pp. 22398–22403, Dec. 2022, doi: 10.1109/JSEN.2022.3213366.

Other Publications

1. U. Sharma, **J. S. Rana**, C. Kumar, M. S. Pradeep Kumar, M. I. Ahmad, S. Jit, and S. Das, “**Visible light detection property of seamless two-dimensional MoS₂-based metal-semiconductor-metal photodiodes fabricated on silicon substrates**,” *Mater. Sci. Semicond. Process.*, vol. 151, no. May, p. 106987, Nov. 2022, doi: 10.1016/j.mssp.2022.106987.
2. Ashutosh Kumar Dikshit, Srinivasa Rao Pathipati, **J. S. Rana**, Satyabrata Jit, “**Two-dimensional Perovskite Nanoplatelets-based Photodetectors for Ultraviolet light detection**”, *IEEE Trans. Electron Devices*, vol. 70, no. 11, pp. 5851-5855, Nov. 2023, doi: 10.1109/TED.2023.3312228.

Conference Publications

1. **J. S. Rana**, Shikha Singh, Santanu Das, and Satyabrata Jit, “**Room Temperature Graphene Nanoparticles/ZnO Nanorods based Ammonia Sensor**,” *IEEE 5NANO 2023 Conference* held at VISAT Engineering College, Ernakulam, Kerala from 27-28 April, 2023 (accepted).
2. Shikha Singh, **J. S. Rana**, Satyabrata Jit, “**Synthesis and Characterization of WSe₂ Nanoflowers for NO₂ Sensing**,” *IEEE 5NANO 2023 Conference* held at VISAT Engineering College, Ernakulam, Kerala from 27-28 April, 2023 (accepted)