

## **List of Publication:**

1. Construction of hybrid solar cell exploiting the interaction of TiO<sub>2</sub>/Photosystem I complexes, Rahul K Desai, Alex S khristy, **Piyush J Bhatt**, Laxmi J Tomar, Preet D vyas, C Ratna Prabha, Kireetkumar D Patel, Bishwajit S Chakrabatry, (Indian Journal of Biochemistry & Biophysics. Vol.60, pp 567-571, July 2023)
2. Enhanced Efficiency of Dye Sensitized Solar Cell Using Eu Doped TiO<sub>2</sub>-ZrO<sub>2</sub> Nanocomposite, Laxmi J Tomar, **Piyush J. Bhatt**, Rahul K. Desai, Bishwajit S. Chakrabarty, (Recent Patents on Nanotechnology, Vol. 16, Issue. 4, pp 333-338, January 2022)
3. Improved Conversion Efficiency of Dye Sensitized Solar Cell Using Zn Doped TiO<sub>2</sub>-ZrO<sub>2</sub> Nanocomposite, Laxmi J. Tomar, **Piyush J. Bhatt**, Rahul K. Desai, B. S. Chakrabarty, C. J. Panchal (Solid State Physics AIP Conf. Proc. 1731, 050132-1–050132-3 (2015))
4. Al and Mg Doped TiO<sub>2</sub>-ZrO<sub>2</sub> Nanocomposites for Dye Sensitized Solar Cell Application, Laxmi J. Tomar, **Piyush J. Bhatt**, Rahul K. Desai, Bishwajit S. Chakrabarty (Invertis Journal of Renewable Energy, Vol. 5, No. 4, 2015; pp. 220-224)
5. Pure Single Crystallographic Form of TiO<sub>2</sub> Nanoparticles: Preparation and Characterization, **Piyush J. Bhatt**, Laxmi J. Tomar, Rahul K. Desai, Bishwajit S. Chakrabarty (Solid State Physics AIP Conf. Proc. 1665, 050125-1–050125-3, (2015))
6. Enhancement of Optical Properties of Hydrothermally Synthesized TiO<sub>2</sub>/ZrO<sub>2</sub> Nanoparticles by Al, Ce Co-doping, Laxmi J. Tomar, **Piyush J. Bhatt**, Rahul K. Desai, Bishwajit S. Chakrabarty (Solid State Physics, AIP Conf. Proc. 1665, 050124-1–050124-3, (2015))
7. Synthesis and Characterization of Nanostructured PbS Thin film, Laxmi J. Tomar, **Piyush J. Bhatt**, Rahul K. Desai, Bishwajit S. Chakrabarty (Int.J. ChemTech Res.2014, 6(3), pp 1923-1925)
8. Investigation of Optical Properties of TiO<sub>2</sub>/CdS/PbS Multilayered Thin Film, Laxmi J. Tomar, Rahul K. Desai , **Piyush J. Bhatt** and B. S. Chakrabarty (Indian Streams Research Journal, Volume-3, Issue-12, Jan-2014)
9. Effect of Preparation method on Optical and Structural properties of TiO<sub>2</sub>/ZrO<sub>2</sub> Nanocomposite, Laxmi J. Tomar, **Piyush J. Bhatt**, Rahul K. Desai, Bishwajit S. Chakrabarty (J. Nano. Adv. Mat. 2, No. 1, 27-33 (2014))