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Publications

Relevant to Thesis Work

1. **Anurag Kumar**, M.I. Ahmad, Role of defects and microstructure on the electrical properties of solution-processed Al-doped ZnO transparent conducting films, Appl. Phys. A. 126 (2020) 1–11.
2. **Anurag Kumar**, M.I. Ahmad, Role of defects in the electronic properties of Al-doped ZnO films deposited by spray pyrolysis, J. Mater. Sci. 57(2022) 7877-7895.
3. **Anurag Kumar**, Deepak Kumar Gorai, Md. Imteyaz Ahmad "High-performance solution-processed Al-doped ZnO TCO by radiative annealing" (**Under Review in** J. of Materials Science: Materials in Electronic).
4. **Anurag Kumar**, Deepak Kumar Gorai, Tarun Kumar Kundu, Md. Imteyaz Ahmad, Effect of radiative annealing on Thallium and Aluminium co-doped zinc oxide Thin Film as a New Transparent Conducting Oxide. (**Being Prepared)**

Collaboration Work

1. **Anurag Kumar,** G. Sharma, A. Aftab, M.I. Ahmad, Flash assisted synthesis and densification of five component high entropy oxide (Mg, Co, Cu, Ni, Zn)O at 350 °C in 3 min, J. Eur. Ceram. Soc. 40 (2020) 3358–3362.

2. J. Sushil, **A. Kumar**, A. Gautam, M.I. Ahmad, High entropy phase evolution and fine structure of five component oxide (Mg, Co, Ni, Cu, Zn)O by citrate gel method, Mater. Chem. Phys. 259 (2021) 124014.
3. Deepak Kumar Gorai, Saikat Kumar Kuila, **Anurag Kumar**, Md. Imteyaz Ahmad, Tarun Kumar Kundu, "Visible-light-driven efficient photocatalytic abatement of water pollutants by Li/P-g-C_3N_4 nanosheet: An experimental and DFT study" **Under Review**.
4. Deepak Kumar Gorai, Saikat Kumar Kuila, Akash Oraon, **Anurag Kumar**, Mukesh Suthar, P.K. Roy, Md. Imteyaz Ahmad, Tarun Kumar Kundu, "A facile and green synthesis of Mn and P functionalized g-C3N4 nanosheets for spintronics devices and enhanced photocatalytic performance under visible-light illumination" **(Being communicated)**.

International Conference Presentations

Relevant to Thesis Work

1. **Anurag Kumar**, Md. Imteyaz Ahmad, "Highly transparent and conductive window for CIGS solar cell", 81st annual session of Indian ceramic society and international conference on expanding horizons of technological applications of ceramic and glass, College of Engineering Pune, December 14-16, 2017, Pune, India.
2. **Anurag Kumar**, Sooraj Kumar, Asim Aftab, Md. Imteyaz Ahmad, "Highly transparent and conductive window for CIGS solar cell", Materials &

Technologies for Energy Conversion and Storage (M-TECS 2018), BARC Mumbai, September 26-29, 2018.

3. **Anurag Kumar**, Maurya Sandeep Pradeepkumar, Sooraj Kumar, Asim Aftab, Md. Imteyaz Ahmad Highly Conductive Aluminium Doped Zinc Oxide Thin Film by Solution Processing Route, Oral presentation, 10th International Conference on. Materials for Advanced Technologies (ICMAT 2019) 23 - 28 June 2019 | Marina Bay Sands, Singapore.

Collaboration Work

1. **Anurag Kumar**, Nirmalendu Patra, S.N. Jha, Baibhav Karan, Prithvi Mohanty, and Mohammad Imteyaz Ahmad "Entropy stabilized five-component oxide ceramics" Advanced ceramics and nanomaterials for sustainable development (ACeNd 2018), Christ University, Bengaluru, September 19-21, 2018, Bengaluru, India. (Abstract accepted for Oral presentation).