

COMPOSITE MATERIALS RESEARCH LABORATORY

Principal Investigator **Dr. Sanjib Bhattacharya**

E-Mail sanjib_ssp@yahoo.co.in

PhD **INDIAN ASSOCIATION FOR THE CULTIVATION OF
SCIENCE AND JADAVPUR UNIVERSITY**

Membership of Professional Society *1. Life member of NEUTRON SCATTERING SOCIETY OF INDIA*
2. Life member of IACS Library
3. Life member of Material Research Society of India

Total Publication in International Journals **42**

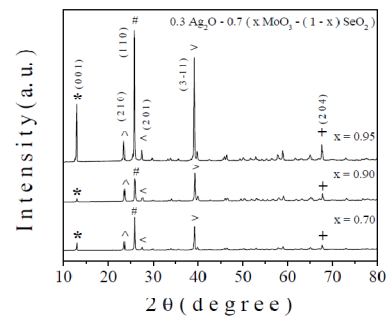
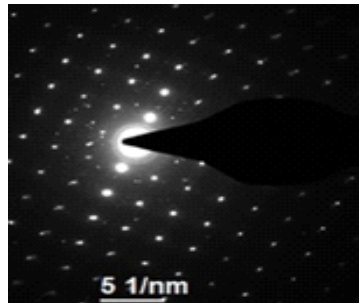
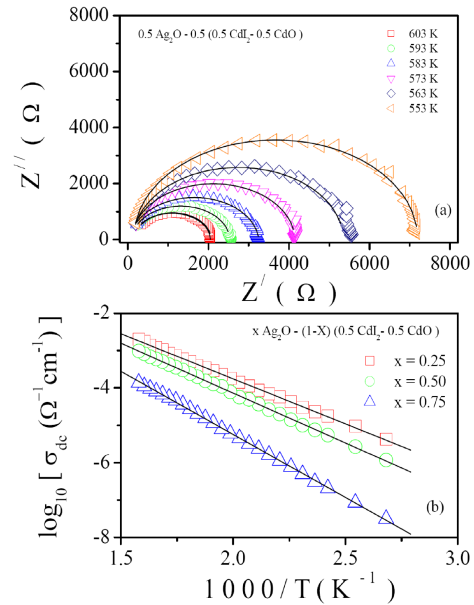
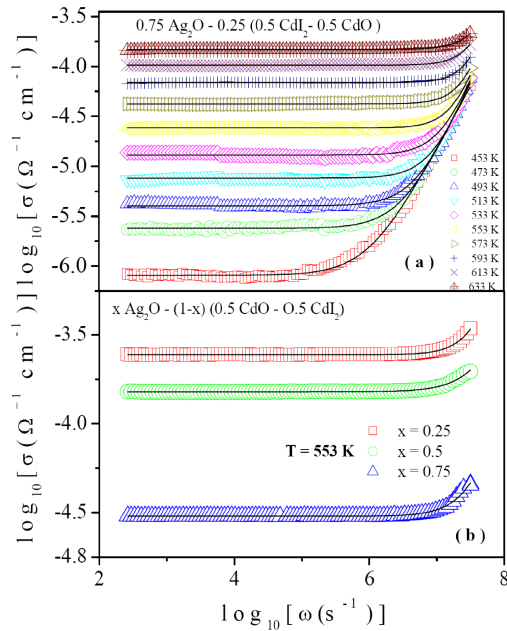
PhD Produced: **01**

PhD Continuing **05**

FIELD OF RESEARCH INTEREST

- ☞ **Condensed Matter and Composite-Material**
- ☞ **Dielectric Spectroscopy**
- ☞ **Electrical Transport of Ions and Electrons in Disordered Solids**
- ☞ **Glass and Glass-Nanocomposites**
- ☞ **Chalcogenide Glassy Alloys**
- ☞ **Lithium Ion Conductor**
- ☞ **Structural Studies using XRD, FESEM, HRTEM etc.**
- ☞ **Magnetic Properties of Transition Metal doped Disordered Solids**
- ☞ **Study of Micro-hardness**

SOME PLOTS RELATED TO RECENT WORK



SOME RECENT PUBLICATIONS

- 1 “Microstructure, Electrical Conductivity and Modulus Spectra of CdI₂ doped Nanocomposite-Electrolytes”, Ranadip Kundu, Debasish Roy and Sanjib Bhattacharya, *Physica B: Condensed Matter* **507** (2017) 107-113
- 2 “Formation of Nano-Phases and study of Transition Metal Oxide doped Glassy Systems”, Sanjib Bhattacharya, Anindya S. Das, Madhab Roy and Debasish Roy, *Journal of Non-Crystalline Solids* **460** (2017)29-35
- 3 “Positron annihilation studies and complementary experimental

characterization of $x\text{Ag}_2\text{O}-(1-x)(0.3\text{CdO}-0.7\text{MoO}_3)$ metal oxide glass-nanocomposites”, Ranadip Kundu,

Sanjib Bhattacharya, Debasish Roy and P.M.G. Nambissan, *RSC Advance* 7 (2017) 8131-8141

4 “Study of Electrical Transport of $\text{Ag}_2\text{O} - \text{CdO} - \text{MoO}_3$ Glass-Nanocomposite-Semiconductor”, Ranadip Kundu, Debasish Roy and Sanjib Bhattacharya, *Chemistry Select* 2 (2017) 6100-6108.

5 “ V_2O_5 - MoO_3 - ZnO thick film resistors as highly selective trace level ethanol gas sensors”, Anindya Sundar Das ; Madhab Roy ; D. R. Patil ; Koyel Bhattacharya ; Debasish Roy ; Sanjib Bhattacharya, *IEEE Xplore* (1st International Conference on Electronics, Materials Engineering and Nano-Technology), Publication Year: 2017, Page(s):1 - 6

6 “Anomalous electrical conductivity in selenite glassy nanocomposites”, Arun Kr Bar, Koyel Bhattacharya, Ranadip Kundu, Debasish Roy and Sanjib Bhattacharya, *Materials Chemistry and Physics* 199 (2017) 322

7 “Identification of defects in the transition metal oxide-doped glass nanocomposite $x\text{V}_2\text{O}_5-(1-x)(0.05\text{MoO}_3-0.95\text{ZnO})$ using positron annihilation spectroscopy and other techniques”, Anindya Sundar Das, Madhab Roy, Debasish Roy, Sanjib Bhattacharya and P.M.G. Nambissan, *Journal of Non-Crystalline Solids* 482 (2018)52-62.