

C.V.

Name : Anver Aziz

Designation : Assistant Professor

Date/Place of birth : 29th Aug. 1967, Delhi, India

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Educational Qualifications:

PhD (1995-2001) : From TIFR, Mumbai, India, under Prof. K L Narasimhan on "**Optical and Electrical Properties of Organic Molecular Semiconductors**". Thesis submitted to Mumbai Univ. in Sep. 2001, successfully defended in Jan. 2003.

M.Phil.(Physics) : From IOP, Bhubaneswar, Orissa, India (94-95), 66%

M.Sc.(Physics) : From Delhi Univ., Delhi, India (92-94), 69%

B.Sc.(Physics) : From St. Stephen's College, Delhi Univ., Delhi, India (89-92), 69%

Positions held starting from the recent one

1. Currently working as Assistant Professor (senior) in the Physics Department, Jamia Millia Islamia, Jamia Nagar. New Delhi 110025 since 1st Oct. 2007.
2. Lecturer in the Physics Department, St. Stephen's College, Delhi University, Delhi 110007 from 20 Oct. 2003 to 30 Sep. 2007.
3. Post-doctoral fellow working on thin film devices of organic semiconductors at EPFL, Lausanne, Switzerland from Sep. 2001 to Nov. 2002.

Research Experience :

During my PhD and post doctoral work I worked on the optical and electrical transport properties of few organic semiconductors like Alq₃. I gained good experience with the following techniques:

1. Handling of chemicals like controlled aggregation, synthesis, etching etc.
2. Designing train sublimation setup for purification of organic materials.
3. High vacuum systems : deposition of various metals like Al, Mg, Ag, Au, Pt, Ca and organic amorphous (molecular) and polycrystalline (polyacenes) thin films on various substrates by thermal evaporation in high vacuum.
4. Other techniques of making thin films like spin coating, casting.
5. Electrical measurements : I-V, C-V at various temp to understand charge transport.
6. Computer interfacing
7. Spectroscopy :
 - a. UV-Vis-IR transmission spectroscopy at different temperatures.
 - b. Far IR Fourier Transform (FTIR) spectroscopy
 - c. Luminescence and luminescence excitation spectroscopy at different temperatures
 - d. Photothermal Deflection Spectroscopy
 - e. Vapour phase spectroscopy of organic compounds at high temp. in specially designed cells using diode-array spectrophotometer to study vibration spectra.
8. Instrumentation
9. Numerical simulation and data fitting techniques
10. Doping of various organic materials to study change in their optical and electrical properties
11. Technique of grapho-epitaxy for growing oriented polycrystalline films on different substrates
12. Cyclic voltametry
13. Operate SEM to study sample surfaces.
14. Deposition and use of self-assembled monolayers on monolayers on various substrates for better wetting to grow films of better crystallinity

Teaching experience :

I taught for 4 years at St. Stephen's College on a permanent position. I was teaching various B.Sc. papers like Mechanics, optics, Properties of materials, Mathematical Physics, Electricity & Magnetism, Thermodynamics & Kinetic Theory and Statistical Mechanics.

In Jamia Millia Islamia I have taught Quantum Mechanics and Relativistic Quantum Mechanics to M.Sc. classes and Digital Electronics and Transducers & Circuit conditioning to B.Sc. classes.

List of Publications (excluding conference papers)

1. Electrical and Optical properties of Porphyrin Monomer and its J-Agg, Anver Aziz et al, Phil Mag B, 79(7), (1999), 993
2. Optical absorption in Alq, Anver Aziz et al, Synthetic Metals, 114 (2000), 133
3. Transport in N⁺(P⁺) Si-Alq-Al junctions, Anver Aziz et al, Journal of Applied Physics, 88(8), (2000), 4739
4. On the assignment of the absorption bands in the optical spectrum of Alq₃, VVN Ravi Kishore, Anver Aziz, KL Narasimhan, N. Periasamy, PS Meenakshi and S Wategaonkar, Synthetic Metals, 126(2-3), (2002), 199.
5. Subband gap Optical Absorption and defects in Tris (8 hydroxy quinolato) Aluminum, Anver Aziz & KL Narasimhan, Synthetic Metals, 131, (2002), 71
6. Orienting Tetracene and pentacene thin films onto Friction-Transferred Poly(tetrafluoroethylene) Substrate, M Brinkmann, S Graff, C Straupe, JC Wittman, C Chaumont, F. Nuesch, Anver Aziz, M Schaer and L Zuppiroli, J. Phys. Chem. B, 107(38), (2003), 10531.