

Brief Profile

Name: Dr. **Subhendu Chandra**

Designation: **Associate Professor**

Department: **Physics**

Email: **subhendu170975@gmail.com**

Highest Qualification (Year and Name of the University or Institute if applicable) : **Ph. D. (2018 and Jadavpur University)**

Teaching Experience: **17 Yrs**

Subjects Taught: (Mention broad areas only) **Mathematical Methods, Thermodynamics, Quantum Mechanics, Communication Electronics etc.**

Vidwan id: **493359**

Research Experience: **10 years as pre-doctoral & 7 years as post-doctoral**

Research Interest: **Raman Spectroscopy and Surface enhanced Raman (SERS) study of organic molecules, FDTD Simulation studies of plasmonic nanomaterials, ab initio and quantum chemical calculations, 2D Correlation spectroscopy.**

Member of Professional Bodies:

1. **Associate Editor: Calcutta Institute of Theoretical Physics (CITP)**
2. **Member: Indian Association for Physics Teachers (IAPT)**
3. **Member: Indian Science Congress Association (ISCA)**

List of Selected Publications:

List of papers published in SCI Journals

1. **Understanding of Enhancement Mechanism in the phenomena of Surface Enhancement Raman Scattering (SERS), Subhendu Chandra, Eru. Chem. Bull, 2023, 12 (Special Issue 10), 4271-4277**
2. **Decoding the topographical features of more realistic SERS active substrates in presence of the probe molecules from statistical considerations: An in-depth study bridging Microscopy with Spectroscopy, Somsubhra Saha, Manash Ghosh, Subhendu Chandra, Joydeep Chowdhury, Colloids and Surfaces A: Physicochemical and Engineering Aspects 628 (2021) 127319**
3. **SERS on all dielectric materials: A brief review, Subhendu Chandra, Joydeep Chowdhury, Asian Journal of Physics, Vol. 28, No 3 (2019) 177-189, ISSN No. 0971-3039**

4. Adsorption and trace detection of pharmacologically significant 5-Methylthio-1, 3, 4-thiadiazole-2-thiol molecule adsorbed on Silver Nanocolloids and understanding the role of Albrecht's "A" and Herzberg–Teller contributions in the SERS spectra: Joydeep Chowdhury, Subhendu Chandra, Manash Ghosh; *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 135, 935-947 (2015)
5. Exploring the pH dependent SERS spectra of 2-mercaptoimidazole molecule adsorbed on silver nanocolloids in the light of Albrecht's "A" term and Herzberg–Teller charge transfer contribution: Subhendu Chandra , Joydeep Chowdhury, Manash Ghosh, G.B. Talapatra, *Journal of Colloid and Interface Science* 399, 33–45 (2013)
6. Genesis of Enhanced Raman Bands in SERS Spectra of 2-Mercaptoimidazole: FTIR, Raman, DFT, and SERS: Subhendu Chandra, Joydeep Chowdhury, Manash Ghosh, and G. B. Talapatra, *J. Phys. Chem. A*, 116, 10934–10947(2012)
7. Adsorption of 3-Thiophene Carboxylic Acid on Silver Nanocolloids: FTIR, Raman, and SERS Study Aided by Density Functional Theory: Subhendu Chandra, Joydeep Chowdhury, Manash Ghosh and G. B. Talapatra, *J. Phys. Chem. C*, 115, 14309–14324 (2011)

List of Books published with ISBN

S.No	Title	Publisher	Year of Publication	ISBN
1	Enhancement mechanism in the phenomena of Surface Enhanced Raman Scattering (SERS) adsorbed on metal nanoparticles	NEW DELHI PUBLISHERS New Delhi, Kolkata	2021	978-81-948993-0-3
2	কোভিড-১৯ ও দ্রুত রোগ সনাক্তকরণ যন্ত্র: বর্তমান সাহিত্য ও সংস্কৃতিতে এর প্রভাব	Chaya Publication	2021	978-819528-81-06
3	Realisation of quick detection and easy death recording technique involved in Covid-19	Manbhumi Sambad Publication Private Limited	2022	978-93-91608-29-3