

Subhajyoti Chaudhuri

Graduate Student
School of Engineering & Applied Science
Yale University

Department of Chemistry
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Academic Background

Yale University

New Haven, USA
PhD - Mechanical Engineering & Materials Science (*ongoing*)

Jadavpur University

Kolkata, India
MSc - Instrumentation
Recipient of the University Gold Medal for standing first in M.Sc. Instrumentation

University of Calcutta

Kolkata, India
BSc - Physics (Major with Honors), Mathematics (Minor) & Electronics (Minor)

Research Interests

Theoretical/Computational	Electron injection dynamics Organic/inorganic interfaces for nanoscale photovoltaics Properties of nanostructures
Synthesis & Characterization	III-V, II-VI heterostructures Polymers Carbon nanostructures
Device Applications	Photovoltaics Photonics Physical/Chemical/Biological Sensors
Structure-property correlation studies	

Awards & Honors

INSPIRE Fellowship (2013)

Awarded by : Department of Science & Technology, Govt. Of India
Award details : Awarded to the first rank holders in post graduate degrees in basic/natural sciences & engineering sciences at Indian Universities, for doing full-time research leading to Ph.D. degree.

University Gold Medal (2012)

Awarded by : Jadavpur University, India
Award details : Awarded to the student standing first in the order of merit in the Master of Science Examination.

Junior Research Fellowship (2012)

Awarded by : Council of Scientific & Industrial Research (CSIR), Govt. Of India
Award details : Awarded to the top 1% of the Physics graduates qualifying through the Joint CSIR-UGC National Eligibility Test in Physical Sciences, for pursuing Ph.D.

Lectureship (2012)

Awarded by : University Grants Commission (UGC), Govt. Of India
Award details : Awarded to the top 1% of the Physics graduates qualifying through the Joint CSIR-UGC National Eligibility Test in Physical Sciences, declaring them eligible for being appointed as lecturers in universities/colleges.

Awards & Honors (continued)

National Merit Certificate (2003)

Awarded by : National Scholarships Scheme, Govt. Of India

Award details : Awarded to the top 0.01% of the graduating students for outstanding performance in the Secondary Examination.

Journal publications

Synthesis of carbon nano-fibers on p-Si having improved temperature sensing capabilities

S. Hussain, D. Ghosh, B. Ghosh, Subhajyoti Chaudhuri, R. Bhar, A K Pal

Materials Science and Engineering B, Volume 178, Issue 1, 1 January 2013, Pages 83-88

Novel BN/Pd Composite films for stable Liquid Petroleum Gas Sensors

D. Ghosh, B. Ghosh, S. Hussain, Subhajyoti Chaudhuri, R. Bhar, A. K. Pal

Applied Surface Science, Volume 263, 15 December 2012, Pages 788-794

Conference proceedings, posters, talks etc.

Carbon nano-fibers on silicon – A novel structure for improved low temperature sensing

Subhajyoti Chaudhuri

National Conference on Instrumentation & Control (NATCONIC 2013)

Heritage Institute of Technology, Kolkata, Feb. 21-22 (2013)

Pulsed laser deposition : In situ fabrication of CdS/CdTe thin film solar cells

Subhajyoti Chaudhuri

National Seminar on laser and its applications

Jadavpur University, Kolkata, Feb. 06 (2013)

Growth of ZnTe films by pulsed laser deposition technique

B. Ghosh, D. Ghosh, S. Hussain, Subhajyoti Chaudhuri, R. Bhar and A. K. Pal

National Conference on Sustainable Development through Innovative Research in Science and Technology

Jadavpur University, Kolkata, Sept. 28-29 (2012)

Skills & Techniques

Thin film deposition techniques

Evaporation

Sputtering

Pulsed laser deposition

Spin coating

Chemical bath deposition

Characterization techniques

Atomic force microscopy

Scanning electron microscopy

Raman spectroscopy

UV-VIS Spectrometry

Gas chromatography

FTIR Spectroscopy

X-ray diffractometry

Software packages

Origin TM

Mathematica TM

HFSS TM

Gaussian TM

**Research
Experience**

Design & simulation of micromachined cavity resonators for quantum information

Special Investigation Student (January'14 –June'14)

Prof. Rob Schoelkopf

Yale University, USA

Studies on Atomic Force Microscope imaging of Bulk Metallic Glasses

Special Investigation Student (August'13 –December'13)

Prof. Udo Schwarz & Prof. Jan Schroers

Yale University, USA

Studies on PVDF-based chemical sensing devices

Junior Research Fellow (December'12 –May'13)

Prof. A K Pal & Prof. R Bhar

Jadavpur University, India

Studies on photoelectric applications of CdTe & ZnTe

Research Intern (August'12 –December'12)

Prof. A K Pal & Prof. R Bhar

Jadavpur University, India

Studies on p-Si / Carbon nanofiber for temperature sensing application

Project Student (February'12 –May'12)

Prof. A K Pal & Prof. R Bhar

Jadavpur University, India

Studies on BN / Pd composite films for LPG sensing application

Project Student (December'11 –February'12)

Prof. A K Pal & Prof. R Bhar

Jadavpur University, India

Raman studies of crystalline KSCN & its aqueous Solution

Summer Intern (August'11 – September'11)

Prof. Barnana Pal & Prof. Nihar Ranjan Ray

Saha Institute of Nuclear Physics, India

Studies on solution growth of large high quality KSCN crystals

Summer Intern (June'11 – July'11)

Prof. Barnana Pal

Saha Institute of Nuclear Physics, India

Teaching Experience

S/L 301 : Analytical Instrumentation Laboratory

Lab Instructor (August'12 –December'12)

Jadavpur University, India

S/L 202 : General Lab II - Thin Films & Solid State Materials

Lab Instructor (January'12 –May'12)

Jadavpur University, India

S/L 103 : General Lab I - Vacuum Science & Technology

Lab Instructor (August'11 –December'11)

Jadavpur University, India