

Bio-data including research experience/interests and publications

1. Name: DR SYED ARSHAD HUSSAIN

2. Designation: Associate Professor
Department of Physics
Tripura University (A Central University)
Agartala, Tripura, India

3. Institution: Tripura University (A Central University)

4. Date of Birth: 05.12.1975

5. Mailing Address:

Department of Physics
Tripura University (A Central University)
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<https://www.tripurauniv.ac.in/Page/departmentsDetailsHome/6-facultybiodata-102>

6. Qualification: M.Sc. Physics (Electronics) Ph.D. (Thin films)

Ph.D. thesis title: Photophysical studies of organized molecular assemblies in Langmuir-Blodgett Films

Postdoctoral Research: (29.07.2007 to 03.08.2008)

Center for Surface Science & Catalysis
Department of Microbial & Molecular System
K. U. Leuven, Leuven, Belgium

7. Field of Specialization: Materials Science (Thin films & Nanoscience)

8. Teaching Experience: 17 Years

9. Research Experience: 19 Years

10. Total Research grant obtained: 420.85 lakhs (list given in Annexure-A: Page-6)

11. Particulars of Guiding Research:

- (i) No. of candidates who have been awarded the Ph.D.: 09 (list given in Annexure-B: Page-10)
- (ii) No. of candidates presently working for Ph.D.: 04 (list given in Annexure-B: Page-11)
- (iii) No. of candidates who have awarded the M.Phil: 03 (list given in Annexure-B: Page-11)



Dr. Syed Arshad Hussain

12. Publications

Total citation: 1276; h – index: 21; i10 index: 43

(Ref: <https://scholar.google.co.in/citations?user=aFaX6hcAAAAJ&hl=en>)

- i. Research Papers (In Journals): **113** (Feature article: **01**, Review article: **07**)
(List given in Annexure-C: Page-12)
- ii. Research Papers (In Conference Proceedings) : **24** (list given in Annexure-D: Page-22)
- iii. Paper presented in seminar/conference: **66** (Invited Talks: **22**) (list given in Annexure-E: Page-25)
- iii. Books authored / edited: **07** (list given in Annexure-F: Page-31)
- iv. Edited special issues in journals: **05** (list given in serial 13; Annexure-G: Page-32)

13. Editorial experience

i. Editorial Board Member:

1. **Applied Clay Science** (Elsevier; IF = 4.605) (2014 – till to date)
2. **Heliyon** (Elsevier, IF = 1.65) (June, 2018 – till to date)
3. **Recent patents on Nanotechnology** (Bentham Science; Impact Factor = 1.475) (June, 2019 onwards)
4. **Micro and Nanosystem** (Bentham Science) (June, 2019 onwards)
5. **Nanoscience & Nanotechnology-Asia** (Bentham Science) (June, 2019 onwards)

ii. Associate Editor of Nanoelectronics section in the journal **Frontiers in Nanotechnology**

iii. Served as the **Guest Editor** of Special Issue on “**Materials Today: Proceedings**” (Elsevier) Volume 5, Issue 1, Part 2, Pages 2023-2400 (2018).

iv. Served as the **Guest Editor** of Special Issue on “**Material Science**” published in **Invertis Journal of Science and Technology**, Vol. 7, No. 2, 2014.

v. Served as the **Guest Editor** of **Physics Express (Cognizure)**, vol. 4 (2014) – Special issue – proceedings of the ICMS2013 conference organized by Department of Physics, Tripura University during 21-23, February, 2013.

vi. Served as one of the **Guest Editors** of **Indian Journal of Physics (Springer)**, June 2010 volume 84 (6).

vii. Served as one of the **Editors** in the Proceedings of the conference of the Physics Academy of North-East (PANE) 2009 published as the book “Research in Physics in north-East India”. The conference was held during 2-4th April, 2009 at the Department of Physics, Tripura University, India.

viii. Served as one of the **Editors** in the Proceedings of the “Conference on Recent Trends of Research in Physics (CRTRP)” published as book (ISBN No: 978-81-904362-9-8) by Research India Publications, New Delhi, India. The conference was held during 3-4th February, 2012 at the Department of Physics, Tripura University, India.

ix. **Editor** of the wall magazine Innovation 2010 at the department of Physics, Tripura University

14. Organizational experience

List of Seminar/Conf. etc organized:

17. **Organizing Secretary** of the ALUMNI MEET (REUNION) of “Tripura University Alumni Association (TUAA)” organized by Tripura University Alumni Association (TUAA) on 12.02.2021.

16. **Convener** of the 3rd Webinar on “The Challenges of Online Education in India” organized by Tripura University Alumni Association (TUAA) on 21st January, 2021.

15. **Convener** of the Distinguished Lecture (Webinar) on “Voyage through space and time: study of elementary events at small scales” organized by Department of Physics, Tripura University on 22nd December, 2020.

14. **Convener** of the 2nd Webinar on “Mental Health and COVID19” organized by Tripura University Alumni Association (TUAA) on 8th October, 2020.

13. **Coordinator** of the AICTE Training And Learning (ATAL) Academy Faculty Development Program (FDP) on Sensor Technology organized by Department of Physics, Tripura University during 21-25, Sept., 2020.

12. **Convener** of the Webinar on “A cursory Glance on Colloid and Interface Science with Special Reference to Nanoparticles” organized by Tripura University Alumni Association (TUAA) on 9th September, 2020.

11. **Convener** of the Third International Conference on Material Science (ICMS2020) organized by the Department of Physics, Tripura University during 04-06 March, 2020.

10. **Coordinator** of the Workshop on “Recent Trends of Microscopy: Light to Electron Microscopy & Digital Image Analysis” during 19-20 September, 2019 Jointly organized by Central Instrumentation Center, Tripura University and Zeiss India

9. **Coordinator** of the Science Academy’s three-day workshop on “Thin Films & Nanomaterials: Principles and Applications” during 26th to 28th March, 2018 held at Department of Physics, Tripura University.

8. **Coordinator** of the program “Meet the Scientist” held on 10th January, 2018, jointly organized by Department of Physics, TU and State Council of Science & Technology, Govt. of Tripura

7. **Convener** of the Second International Conference on Material Science (ICMS2017) organized by the Department of Physics, Tripura University during 16 – 18 rd February, 2017.

6. **Coordinator** of the Science Academies’ Refresher Course on “Thin films and Nanoscience” during 4 – 18 th May, 2015 held at Department of Physics, Tripura University.

5. **Convener** of the International Conference on Material Science (ICMS2013) organized by the Department of Physics, Tripura University during 21 – 23 rd February, 2013

4. **Organizing Secretary** of the Conference on Recent Trends of Research in Physics organized by the Department of Physics, Tripura University during 13-14 th January, 2012

3. **Convener** of Seminar on condensed Matter Physics (SCMP 2010), at the Department of Physics, Tripura University, Suryamaninagar – 799130, Tripura (West), on 16th February, 2010

2. **Joint convener** of Vith National Conference of Physics Academy of North-East (PANE-2009), at the Department of Physics, Tripura University, Suryamaninagar – 799130, Tripura (West), during 3-4th April, 2009)

1. **Organizing Secretary** of Reunion-2007 of Department of Physics, TU on 6th May 2007

15. Award / Distinction Earned:

- i. Honorary Editorial Board Member of six journals
- ii. Visiting Post Doctoral Fellow (2007-08), K. U. Leuven, Belgium.
- iii. Selected to attend the Science Conclave: A Congregation of Nobel Prize Winners, Indian Institute of Information Technology, Allahabad, Dec., 15-21, 2008.
- iv. Jagadish Chandra Bose Award-2009 by Govt. of Tripura, India.
- v. DST-Young Scientist Research Award by Department of Science & Technology, Govt. of India.
- vi. DAE-Young Scientist Research Award (2009-12) by Department of Atomic Energy, Govt. of India.
- vii. Felicitation by State Journalist Forum, Tripura India
- viii. Best paper presentation award in International Conference on Emerging Areas of Chemistry -2011 organized by Department of Chemistry, Tripura University during 9-11 Jan, 2011.
- ix. Visiting Scientist
 - K. U. Leuven, Belgium (May, 2011 to July, 2011)
 - Antalya Bilim University, Turkey (June, 2011)
 - Osaka University, Japan (Nov-Dec., 2013)
 - Yamaguchi University, Japan (Nov-Dec., 2013)
 - Osaka University, Japan (March, 2018)
 - Yamaguchi University, Japan (March, 2018)
- x. Felicitation by Asiatic Society of Bangladesh during 28-29 Oct., 2011.
- xi. “Bharat Jyoti Award” (2011) by “The India International Friendship Society”, New Delhi, India.
- xii. “Rasthriya Vidhya Samman Puruskar” (2012) by EGSI, New Delhi, India.
- xiii. Invited to visit Yamaguchi University, Japan during Nov-Dec, 2013 as a part of Cooperative Science Program of Yamaguchi University, Japan.
- xiv. Invited to visit Osaka University during Nov-Dec, 2013 as a part of Cooperative Science Program of Osaka University, Japan.

16. Research Collaboration:

In India:

- i. Dr. Pabitra Kumar Paul, Department of Physics, Jadavpur University, Kolkata, India
- ii. Prof. D. K. Aswal, Head, Thin Films Devices Section, Technical Physics Division, Bhabha Atomic Research Center (BARC), Mumbai. Presently Director, National Physical Laboratory, New Delhi, India
- iii. Prof. Swapan Majumdar, Department of Chemistry, Tripura University
- iv. Prof. Dilip K. Maiti, Department of Chemistry, University of Calcutta, India

Outside India:

- i. Prof. Robert A. Schoonheydt, Centre for Surface Chemistry and Catalysis, K. U. Leuven, Belgium.
- ii. Prof. Alexander Volodin, Laboratory of Solid State Physics and Magnetism, Department of Physics and Astronomy, K. U. Leuven, Belgium.
- iii. Prof. Jun Kawamata, School of Chemistry, Yamaguchi University, Japan.
- iv. Prof. Takuya Matsumoto, Graduate School of Engineering, Osaka University, Japan.
- v. Prof. Amir Berman, Bengurion University, Israel
- vi. Prof. Mohamed Mehdi CHEHIMI, Leader of the Surface & Interface research team, Université Paris, France (Ms Jlassi Khoulood, group member of my French collaborator Prof. M. Chehemi, Leader of the Surface & Interface research team at University of Paris carried out a part of her PhD research work at Thin film and Nanoscience lab, Tripura University under Raman-Charpak fellowship)

17. Research facility developed at Thin film & Nanoscience Lab, Tripura University

Instruments for Thin Film Preparation:

- i. Fluorescence Imaging Microscope attached with Langmuir-Blodgett film deposition instrument (Apex Instruments, India)
- ii. Brewster Angle Microscope attached with Langmuir Trough (Accuirion, Germany)
- iii. Langmuir-Blodgett film deposition instrument (Apex Instruments, India)
- iv. Automatic computer controlled Dip coater (Apex Instruments, India)
- v. Programmable Spin Coater (Apex Instruments, India)
- vi. Vacuum deposition unit (HindHiVac)

Instruments for Characterizations:

- i. Fluorescence spectrophotometer (Perkin Elmer)
- ii. UV-Vis absorption spectrophotometer (Perkin Elmer)
- iii. UV-Vis absorption spectrophotometer (Shimadzu)
- iv. FTIR Spectrophotometer (Perkin Elmer)
- v. Millipore water purification system (Millipore)
- vi. Keithley source meters (constant current source, nano- voltmeter, I-V source meter)
- Vii. Electrochemical Workstation

Others

- Sample Chamber for measuring electric property in vacuum.
- Ultrasonic water bath (two numbers)
- Digital temperature controller (three numbers)
- Magnetic stirrer (two numbers)
- Distil water plant (3 number)
- Standard glass ware and chemicals
- Digital pH meter (3 numbers)

(<https://sahussaintu.wordpress.com/research-facility/>)

18. Research facility developed at Central Instrumentation Centre (CIC), Tripura University

Working as the **Coordinator** of the Central Instrumentation Center (CIC) since the inception of the center in 2016 to till date.

Equipments available at the centre:

1. Atomic Force Microscope (AFM), Model: INOVA, Bruker.
Field Emission Scanning Electron Microscope with EDS & Sputter Coater, Model - Sigma 300, Carl Zeiss
2. 400 MHz NMR
3. Liquid Nitrogen Plant, Model: StirLITE, Stirling Cryogenics
4. GCMS (Gas Chromatography-Mass spectrum) instruments: model: Varian 220-MS / 450-GC, 230V (Agilent service)
5. HPLC (High performance liquid chromatography) - Dionex U3000
6. GSV4004B GPS Ionospheric Scintillation & TEC Monitor (GISTM)
7. Lifetime Spectrofluorometer, Model: FluroLog-3, Horiba
8. CHEMIDOC
9. Immunofluorescence Microscope (Carl Zeiss)

For more details about center: <https://cictu.wordpress.com/>
<https://www.tripurauniv.ac.in/Page/InstrumentationCentre>

Annexure - A

Ongoing Projects:

As Principal Investigator:

Project Title: Photo-physical studies of some molecules in solution, bulk and ultrathin films in presence and absence of nano-clay: investigations of fluorescence resonance energy transfer and sensor application.

Sanctioned amount: Rs. 30.4 lakhs (2016 – 2019)

Funding agency: DST, Govt of India (Ref. No. EMR/2014/000234; dt 17.03.2015)

As Program Coordinator:

Project Title: Financial support under “Fund for Improvement of S&T infrastructure in universities & higher educational institutions (FIST)”.

Funding agency: DST, Govt. of India (Ref. No. SR/FST/PSI-191/2014)

Sanctioned amount: Rs. 175 lakhs (2014-2019)

Project completed as Principal Investigator:

1) Project Title: Fabrication and characterizations of ultrathin films obtained by molecular self assembly method through electrostatic interactions.

Funding agency: DST, Govt of India (Fast Track Scheme for Young Scientist) (Ref. No. SE/FTP/PS-54/2007)

Total grant: Rs. 13.74 lakhs (2010 – 2014)

2) Project Title: Investigations of molecular organization in nano-dimensional organo-clay mono- and multilayer hybrid films fabricated by Langmuir-Blodgett and Layer-by- Layer Self assembled technique.

Funding agency: CSIR, Govt of India (Ref. 03(1146)/09/EMR-II dt 12/11/2009).

Total grant: Rs. 22 lakhs (2009 – 2014)

3) Project Title: Investigations of the organizations and morphology of nano-dimensional organo-clay hybrid Langmuir-Blodgett (LB) films.

Funding agency: DAE, Govt of India (DAE Young Scientist Research Award -2009) (Ref. No. 2009/20/37/8/BRNS/3328 dt 9/3/2010)

Total grant: Rs. 15.33 lakhs (2010 – 2013)

4) Project Title: Photophysical studies of organized molecular assemblies in Langmuir-Blodgett Films.

Funding agency: UGC, Govt of India (minor research project)

Total grant: Rs. 0.35 lakhs (2004-2005)

Project completed as Co-Principal Investigator:

1) Project Title: Morphological and photophysical investigations of Langmuir and Langmuir-Blodgett films

Funding agency: DST, Govt of India (Ref No: SR/S2/LOP-19/07)

Total grant: Rs. 19.64 lakhs (2008-2012)

2) Project Title: Photophysical investigation of stable Langmuir-Blodgett films of organic, polymeric and water soluble materials

Funding agency: CSIR, Govt of India (Ref. Ref. No.03 (1080)/06/EMR-II)

Total grant: Rs. 7.5 lakhs (2007-2010)

Funding received for other purposes as PI/Convener

Faculty Development Program (FDP) under the scheme AICTE Training and Learning (ATAL) Academy Faculty Development Program (FDP) on “Sensor Technology” during 21-25 September, 2020 held at Department of Physics, Tripura University (A Central University)

Funding Agency: AICTE, Govt. of India

Ref. No. 01/AICTE/ATAL-HQ/2020-21/1583935067 dated 12.08.2020

Sanctioned amount: Rs. 0.93 lakhs

Funding for organizing Third International Conference on Material Science (ICMS2020) during 04-06 March, 2020 held at Dept. of Physics, TU

Funding Agency: UGC, Govt. of India

Ref. No. No F.530/23/DRS-I/2018 (SAP-I) dated 24th April, 2018

Sanctioned amount: Rs. 2 lakhs

Funding for organizing Third International Conference on Material Science (ICMS2020) during 04-06 March, 2020 held at Dept. of Physics, TU

Funding Agency: SERB-DST, Govt. of India

Ref. No. SSY/2019/001030 dated 04 November, 2019

Sanctioned amount: Rs. 1.5 lakhs

Funding for organizing Third International Conference on Material Science (ICMS2020) during 04-06 March, 2020 held at Dept. of Physics, TU

Funding Agency: DRDO, Govt. of India

Sanctioned amount: Rs. 0.80 lakhs

Funding for organizing Third International Conference on Material Science (ICMS2020) during 04-06 March, 2020 held at Dept. of Physics, TU

Funding Agency: INSA, Govt. of India

Ref. No. SP/C-Feb-52/2-19-20 dated 27 Feb., 2020

Sanctioned amount: Rs. 0.50 lakhs

Funding for organizing Science Academy's three-day workshop on “Thin Films & Nanomaterials: Principles and Applications” during 26 to 28 March, 2018

Funding Agency: Joint Science Education Panel, Indian National Science Academy, Govt. of India

Ref. No. IASc/SEP/LW/March/2018 dated 2nd February, 2018

Sanctioned amount: Rs. 2.05 lakhs

Funding for organizing Second International Conference on Material Science (ICMS2017) during 16-18, Feb. 2017 held at Dept. of Physics, TU
Funding Agency: SERB-DST, Govt. of India
Ref. No. SB/SS/1129/16-17 dated 21 November, 2016
Sanctioned amount: Rs. 1.5 lakhs

Funding for organizing Second International Conference on Material Science (ICMS2017) during 16-18, Feb. 2017 held at Dept. of Physics, TU
Funding Agency: DRDO, Govt. of India
Ref. No. ERIP/ER 16-17/C/181 dated 30 Jan., 2017
Sanctioned amount: Rs. 1.0 lakhs

Funding for organizing Second International Conference on Material Science (ICMS2017) during 16-18, Feb. 2017 held at Dept. of Physics, TU
Funding Agency: CSIR, Govt. of India
Ref. No. SYM/8845/16-HRD Dated 28 Sept., 2016
Sanctioned amount: Rs. 0.50 lakhs

Funding for organizing Second International Conference on Material Science (ICMS2017) during 16-18, Feb. 2017 held at Dept. of Physics, TU
Funding Agency: INSA, Govt. of India
Ref. No. SYM SP/C-57/2016 – 17 Dated 06 Oct., 2016
Sanctioned amount: Rs. 0.30 lakhs

Funding for organizing Second International Conference on Material Science (ICMS2017) during 16-18, Feb. 2017 held at Dept. of Physics, TU
Funding Agency: BRNS, Govt. of India
Ref. No. 2016063700SYMP03246-BRNS Dated 06 Oct., 2016
Sanctioned amount: Rs. 1.0 lakhs

Funding for organizing Science Academies' Refresher Course on "Thin films and Nanoscience" during 4 – 18 th May, 2015
Funding Agency: Joint Science Education Panel, Indian National Science Academy, Govt. of India
Ref. No. SEP/RC-May-1/2015-16 dated 9th Dec., 2014
Sanctioned amount: Rs. 6.38 lakhs

Funding for organizing First International Conference on Material Science (ICMS2013) during 21-23, Feb. 2013 held at Dept. of Physics, TU
Funding Agency: BRNS, Govt. of India
Ref. SYM/7309/12-HRD, July, 27, 2012
Sanctioned amount: Rs. 2.0 lakhs

Funding for organizing First International Conference on Material Science (ICMS2013) during 21-23, Feb. 2013 held at Dept. of Physics, TU
Funding Agency: CSIR, Govt. of India
Ref. SYM/7309/12-HRD, July, 27, 2012
Sanctioned amount: Rs. 2.0 lakhs

Funding for organizing First International Conference on Material Science (ICMS2013) during 21-23, Feb. 2013 held at Dept. of Physics, TU
Funding Agency: DBT, Govt. of India

Ref. DBT/CTEP/01/201200584 Dated 18 July, 2012
Sanctioned amount: Rs. 2.0 lakhs

Funding for organizing First International Conference on Material Science (ICMS2013) during 21-23, Feb. 2013 held at Dept. of Physics, TU
Funding Agency: DRDO, Govt. of India
Ref. ERIP/ER12 – 13/C/313 dated 19 Dec 2012
Sanctioned amount: Rs. 0.75 lakhs

Funding for organizing First International Conference on Material Science (ICMS2013) during 21-23, Feb. 2013 held at Dept. of Physics, TU
Funding Agency: DST, Govt. of India
Ref. SERB/F/4426/2012-13 dated 07.11.2012 & SR/SS/882/12-13; Dated :16/11/2012
Sanctioned amount: Rs. 2.0 lakhs

Funding for organizing First International Conference on Material Science (ICMS2013) during 21-23, Feb. 2013 held at Dept. of Physics, TU
Funding Agency: INSA, Govt. of India
Ref. No SP/C-42/2012/1657 dated 04.10.2012
Sanctioned amount: Rs. 0.40 lakhs

Funding for organizing First International Conference on Material Science (ICMS2013) during 21-23, Feb. 2013 held at Dept. of Physics, TU
Funding Agency: MoES, Govt. of India
Ref. No MoES/SSWC/74/2011/PC5
Sanctioned amount: Rs. 0.80 lakhs

Annexure – B

Research guidance

No. of Ph.D. awarded: 07 Ongoing registered Ph.D. students: 03

List of awarded students:

Sl. No.	Name of the candidate	Title of the thesis	Year of award
01.	Dr. Dhananjay Dey	Spectroscopic characterizations of organized Molecular Assemblies in Ultra thin films fabricated by Layer-by-Layer (LbL) self assembled Technique.	2012
02.	Dr. Md. N. Islam	Photo physical characterizations of organized molecular assemblies in ultrathin films fabricated by Langmuir-Blodgett (LB) and Layer by Layer (LbL) self assembled (SAM) techniques.	2013
03.	Dr. Sekhar Chakraborty	Investigations of molecular and particulate Organization in hybrid organo-clay mono and multilayer films.	2013
04.	Dr. Santanu Chakraborty	Spectroscopic characterizations of some organic molecules in presence and absence of nano-dimensional clay sheets in restricted geometry of ultra-thin films.	2015
05.	Dr. Dibyendu De	Investigation of Fluorescence Resonance Energy Transfer (FRET) among dyes in solution and ultra-thin films.	2015
06	Dr. Arpan Datta Roy	Fluorescence resonance energy transfer in presence of biological molecules.	2018
07	Dr. Jaba Saha	Study of fluorescence resonance energy transfer and its sensing applications .	2018
08	Dr. Bapi Dey	Electrical and optical characterizations of some organic molecules assembled onto ultra thin films	2019
09	Dr. Pintu Debnath	Study of molecular aggregates of cyanine dyes in ultra-thin films	2019

List of ongoing Ph.D. students:

Sl. No.	Name	Topic of their research	status
01	Mr Sudip Suklabaidya	Study of polydiacetylene in Langmuir-Blodgett Films & its sensing application	Registered in 2017
02	Mr. Surajit Sarkar	Supramolecular assembly with unique chromatic properties	Registered in 2020
03	Mr. Hritinava Banik	Investigations of resistive switching using biodegradable materials	Course work completed
04	Ms. Ripa Paul	Study of biomembrane using LB technique to explore different biophysical processes occurring within cell membrane	Course work completed

List of students awarded M.Phil:

Sl. No.	Name	Topic of their research	status
01	Ms. Namita Das	Photophysical Characterizations of Organized Molecular Assemblies of Pyrene in Mixed LB Films	Awarded in 2007
02	Mr. Shirshendu	Optical characterizations of ultrathin films fabricated by Layer by Layer (LbL) technique	Awarded in 2007
03	Ms. Nabanita Chackraborty	Spectroscopic characterizations of self assembled films of rosebengal	Awarded in 2007

Annexure-C

List of Publications in peer reviewed journals:

- 113.** 7-Alkoxy appended coumarin derivatives: Synthesis, photo-physical properties, aggregation behaviours and current–voltage (I-V) characteristic studies on thin films
Abhijit Pal; Bapi Dey; Sudip Suklabaidya; Syed Arshad Hussain; Swapan Majumdar
RSC Advances 11 (2021) 10212–10223 (RSC, IF=3.070)
- 112.** Resistive switching of tetraindolyl derivative in ultrathin films: A potential candidate for non-volatile memory devices
Surajit Sarkar, Hritinava Banik, Sudip Suklabaidya, Barnali Deb, Swapan Majumdar, Debajyoti Bhattacharjee and Syed Arshad Hussain*
Langmuir (American Chemical Society, IF=3.557) (Accepted)
- 111.** Micellar effect of CTAB on Phenol red sodium salt: A model system may be used for cell membrane study
MituSaha, Nilima Biswas, S.A. Hussain and, D. Bhattacharjee
Materials Today: Proceedings (article in press) (Elsevier, IF=0.694)
- 110.** Study of polydiacetylenes and rhodamine-800 mixed film at air-water interface and onto solid support: Trace of fluorescence resonance energy transfer (FRET)
S. Suklabaidya, S. Chakraborty, J. Saha, B. Dey, S. Sarkar, D. Bhattacharjee, Syed Arshad Hussain*
Polymer Bulletin 78 (2021) 93-113 (Springer, IF=1.858)
- 109.** Self-standing films of tetraindolyl derivative and saponite clay mineral with reversible colour switching properties
Surajit Sarkar, Barnali Deb, Sudip Suklabaidya, Santanu Chakraborty, Debajyoti Bhattacharjee, Swapan Majumdar, Yasutaka Suzuki, Jun Kawamata, Bapi Dey, Syed Arshad Hussain*
Journal of Physics and Chemistry of Solids 144 (2020) 109487 (Elsevier, IF=2.758)
- 108.** Fluorescence resonance energy transfer (FRET) between acriflavine and CdTe quantum dot
Santanu Chakraborty and Syed Arshad Hussain
Materials Today: Proceedings (article in press) (Elsevier, IF=0.694)
- 107.** Resistive Switching Behaviour of Organic Molecules (Brief Review)
Bapi Dey, Surajit Sarkar, HritinavaBanik, Syed Arshad Hussain*
Materials Today: Proceedings (Elsevier, IF=0.694) (article in press)
- 106.** Fluorescence Resonance Energy Transfer (FRET) as Biomarkers (Brief Review)
Ripa Paul, Sudip Suklabaidya, Syed Arshad Hussain*
Materials Today: Proceedings (Elsevier, IF=0.694) (article in press)
- 105.** Fluorescence and FRET based mercury (II) sensor
JabaSaha, S. Suklabaidya, J. Nath, A. D. Roy, D. Dey, B. Dey, D. Bhattacharjee, Syed Arshad Hussain*
International Journal of Environmental Analytical Chemistry 100 (2020) 789-807 (Taylor and Francis, IF=1.372)
- 104.** Effect of Functional Group on Electrical Switching Behaviour of an Imidazole Derivative in Langmuir-Blodgett Film

Bapi Dey, Sudip Suklabaidya, Prof. Swapan Majumdar, Dr.Pabitra Kumar Paul, Prof. Debajyoti Bhattacharjee, Syed Arshad Hussain*
Chemistry Select 4 (2019) 9065 – 9073 (Wiley, IF=1.716)

103. Selective and sensitive detection of l-Cysteine via fluorometric assay using gold nanoparticles and Rhodamine B in aqueous medium

Pradip Maiti, Tanmoy Singha, Utsav Chakraborty, Sannak Dutta Roy, ParimalKarmakar, Bapi Dey, Syed Arshad Hussain, Sharmistha Paul, PabitraKumarPaul
Materials Chemistry and Physics 234 (2019) 158-167 (Elsevier, IF=2.21)

102. Application of Nanotechnology in Medicine

Syed Arshad Hussain*
Ann. Nanomed. Nanotechnol., 1(1): 001- 002 (Editorial)

101. Phase behaviour of Poly diacetylene mixed with a Xanthene dye at air-water interface and onto solid support

Sudip Suklabaidya, Bapi Dey, D. Bhattacharjee, Sehar Chakraborty, Syed Arshad hussain*
Softmaterials 17(1) (2019) 77-92 (Taylor & Francis, IF=1.132)

100. Micellar effect of surfactant on the aggregation pattern of a fluorescent dye in ultra-thin film

Chandan Debnath, MituSaha, Syed Arshad Hussain, D. Bhattacharjee
Journal of Photochemistry & Photobiology A: Chemistry 364 (2018) 696–704 (Elsevier; IF = 3.261)

99. Photophysical study of the interaction between ZnO nanoparticles and globular protein bovine serum albumin in solution and in a layer-by-layer self-assembled film

ChaitaliHansdaa, Pradip Maiti, Tanmoy Singha, Manisha Pal, Syed Arshad Hussain, Sharmistha Paul, Pabitra Kumar Paul
Journal of Physics and Chemistry of Solids 121 (2018) 110–120 (Elsevier; IF = 2.059)

98. Electrical switching behaviour of a metalloporphyrin in Langmuir-Blodgett film

Bapi Dey, Sekhar Chakraborty, Santanu Chakraborty, Debajyoti Bhattacharjee, InamuddinInamuddin, Anish Khan, **Syed Arshad Hussain***
Organic Electronics 55 (2018) 50 – 62 (Elsevier, IF =3.399)

97. Modified aggregation pattern of cresyl violet acetate adsorbed on nano clay mineral layers in Langmuir Blodgett film

Soma Banik, D. Bhattacharjee, **Syed Arshad Hussain***
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- 01.** Langmuir Blodgett Films of 9-phenyl anthracene molecules incorporated into different matrices
S. A. Hussain, S. Deb, S. Biswas, D. Bhattacharjee
Spectrochimica Acta Part-A 61 (2005) 2448-2454 (Elsevier; IF=2.353)

Annexure – D

Research Papers published in proceedings:

- 24)** Polydiacetylene and imidazole mixed self-standing films for colorimetric detection of various volatile organic analytes
Sudip Suklabaidya, S Chakraborty, S Sarkar, D Bhattacharjee and Syed Arshad Hussain*
Journal of Physics: Conference Series (IOP), (2019) 1330, 012012
- 23)** Role of quantum dot in designing FRET based sensors
JabaSaha, Arpan D. Roy, D. Bhattacharjee, **Syed Arshad Hussain***
Materials Today: Proceedings Materials Today: Proceedings 5 (2018) 2306–2313 (Elsevier)
- 22)** Editorial: A special issue on Material Science based on the papers presented during Second International Conference on Material Science
Syed Arshad Hussain*
Materials Today: Proceedings Materials Today: Proceedings 5 (2018) 2023–2030 (Elsevier)
- 21)** Study of an Imidazole Derivative Mixed with Fatty Acid at Air-Water Interface and in Ultrathin Films
Bapi De, Swapan Majumdar, D. Bhattacharjee, **Syed Arshad Hussain***
Materials Today: Proceedings Materials Today: Proceedings 5 (2018) 2287–2294 (Elsevier)
- 20)** Effect of Electric Field on J-aggregate in Ultrathin Films
Pintu Debnath, S. Deb, **Syed Arshad Hussain***
Materials Today: Proceedings Materials Today: Proceedings 5 (2018) 2275–2280 (Elsevier)
- 19)** Polydiacetylene (PDA) Film: A unique sensing element
Sekhar Chakraborty, **Syed Arshad Hussain***
Materials Today: Proceedings Materials Today: Proceedings 5 (2018) 2367–2372 (Elsevier)
- 18)** Interaction of an antibiotic – Norfloxacin with lipid membrane
Sudip Suklabaidya, **Syed Arshad Hussain***
Materials Today: Proceedings Materials Today: Proceedings 5 (2018) 2373–2380 (Elsevier)
- 17)** Metachromasy of a water soluble pthalocyanine dye in the solutions and deposited Langmuir films
A. Shil, C. Debnath, **S. A. Hussain**, D. Bhattacharjee
Materials Today: Proceedings (Elsevier) Materials Today: Proceedings 5 (2018) 2339–2344
- 16)** Effect of DNA in controlling the H-dimeric sites of Nile Blue Chloride (NBC) in ultra-thin film
C. Debnath, A. Shil, **S. A. Hussain**, D. Bhattacharjee
Materials Today: Proceedings (Elsevier) Materials Today: Proceedings 5 (2018) 2345–2351
- 15)** Effect of nano clay platelets on the hybrid monolayer of a cationic oxazine dye: In-situ Brewster Angle Microscopic (BAM) study
Soma Banik ,MituSaha, **S. A. Hussain**, D. Bhattacharjee
Materials Today: Proceedings (Elsevier) Materials Today: Proceedings 5 (2018) 2352–2358
- 14)** Study of aggregation behavior of water insoluble metalloporphyrin (Zn) in LB film

MituSaha , Soma Banik, **S. A. Hussain**, D. Bhattacharjee
Materials Today: Proceedings (Elsevier) Materials Today: Proceedings 5 (2018) 2246–2253

13) Electrical Switching Behaviour of Organic Molecules assembled Onto Ultrathin Film.
Bapi Dey, Santanu Chakraborty, Pintu Debnath, D. Bhattacharjee, **Syed Arshad Hussain***
Status of Research in Physics in North-East India, (2015) ISBN 978-93-81631-38-6.

12) Formation of SHG active J-aggregated species of a cyanine dye in Langmuir – Blodgett (LB) Films.
Pintu Debnath, Santanu Chakraborty, Subrata Deb, D. Bhattacharjee, **Syed Arshad Hussain***
Status of Research in Physics in North-East India, (2015) ISBN 978-93-81631-38-6.

11) FRET based pH sensor.
JabaSaha, Arpan Datta Roy, Dibyendu Dey, D. Bhattacharjee, **Syed Arshad Hussain***
Status of Research in Physics in North-East India, (2015) ISBN 978-93-81631-38-6.

10) Design of a molecular logic X-OR gate based on Energy Transfer between two dyes.
Arpan Datta Roy, JabaSaha, Dibyendu Dey, D. Bhattacharjee, **Syed Arshad Hussain***
Status of Research in Physics in North-East India, (2015) ISBN 978-93-81631-38-6.

9) Adsorption behaviour of a cationic dye onto nano clay platelets in layer by layerself assembled film.
Soma Banik, MituSaha, **S.A. Hussain**, D. Bhattacharjee
Status of Research in Physics in North-East India, (2015) ISBN 978-93-81631-38-6.

8) Adsorption of protein at air-water interface in the presence of two Xanthene dyes.
MituSaha, Soma banik, **S.A. Hussain**, D. Bhattacharjee
Status of Research in Physics in North-East India, (2015) ISBN 978-93-81631-38-6.

7) Mechanics of nano – clay layers: saponite and hectorite Mechanics of nano – clay layers: saponite and hectorite
Syed Arshad Hussain*
Proceedings of the Conference on Conference on Recent Trends of Research in Physics (CRTRP) Organized by Department of Physics, Tripura , -4 Feb., 2012 (Research India Publications New Delhi) ISBN: 978-81-904362-9-8 (2013)

6) Adsorption behavior of Rhodamine B and laponite in ultra thin films by LBL method
Syed Arshad Hussain*
Proceedings of the Conference on Conference on Recent Trends of Research in Physics (CRTRP) Organized by Department of Physics, Tripura University, 3-4 Feb., 2012 (Research India Publications, New Delhi) ISBN: 978-81-904362-9-8 (2013)

5) Molecular logic gates using FRET phenomenon
JabaSaha, D. Bhattacharjee, **Syed Arshad Hussain***
Conference on Recent Trends of Research in Physics (CRTRP) Organized by Department of Physics, Tripura University, 3-4 Feb., 2012 (Research India Publications, New Delhi) ISBN: 978-81-904362-9-8 (2013)

4) Formation of dimer in Layer-by-Layer self assembled films of Oxazine 4 Perchlorate
D. Bhattacharjee, **Syed Arshad Hussain***

Proceedings of the Conference on Conference on Recent Trends of Research in Physics (CRTRP)
Organized by Department of Physics, Tripura University, 3-4 Feb., 2012 (Research India
Publications, New Delhi) ISBN: 978-81-904362-9-8 (2013)

3) Incorporation of a laser dye onto lipid matrix at air-water interface

MituSaha, **Syed Arshad Hussain**, D. Bhattacharjee

Proceedings of the Conference on Conference on Recent Trends of Research in Physics (CRTRP)
Organized by Department of Physics, Tripura University, 3-4 Feb., 2012 (Research India
Publications, New Delhi) ISBN: 978-81-904362-9-8 (2013)

2) Study of nano dimensional hybrid organo-clay Langmuir-Blodgett films

S. Chackraborty, D. Bhattacharjee, **Syed Arshad Hussain***

Proceedings of the Conference on Conference on Recent Trends of Research in Physics (CRTRP)
Organized by Department of Physics, Tripura University, 3-4 Feb., 2012 (Research India
Publications, New Delhi) ISBN: 978-81-904362-9-8 (2013)

1) Fabrication and characterization of polymer-clay nanocomposites using electrostatic layer-by-layer (LbL) self assembled technique.

D. Bhattacharjee, **Syed Arshad Hussain***

Proceedings of the Conference on Recent Trends of Research in Physics (CRTRP) Organized by
Department of Physics, Tripura University, 3-4 Feb., 2012 (Research India Publications, New
Delhi) ISBN: 978-81-904362-9-8 (2013)

Annexure - E

Training Courses, Teaching-learning-Evaluation Technology Program, Faculty Development Program

1. Refresher course in Experimental Physics

08.03.2015 to 23.03.2015

Tripura University, Tripura

2. Orientation program on “Information Technology and RTI”

23.10.2008 to 15.11.2008

Academic Staff College, Manipur University

3. Refresher course in Environmental Science

24.12.2012 to 13.01.2013

Academic Staff College, Gauhati University, Assam

4. Saksham – IT Training Program

21.11.2011 to 01.12.2011

Tripura University, Tripura

Paper presented in National / International Conference/Seminar:

66. “International Conference on Nanotechnology for Better Living NBL-2” (Keynote lecture)

Organized by NIT Srinagar, Jammu & Kashmir 7-11, 2021

Title of the talk: Organo – clay hybrid films: promising candidate for optoelectronics applications [11 click here](#)

65. “National Science Day – 2021” celebration (Invited Talk)

Organized by ADB College, Nagaon, Assam on 6th March, 2021

Title of the talk: Future of STI: Impacts on Education, Skills, and Work with introduction about Nanotechnology

64. “National Science Day – 2021” celebration (Keynote lecture)

Jointly by Women’s College, Agartala & Tripura Council for Science and Technology, Govt. of Tripura on 26.02.2021

Title of the talk: Future of STI: Impacts on Education, Skills, and Work

63. “International Webinar on Nanoscience and Nanomaterials” organized by Department of Physics, Assam University, Silchar, Assam during 16-17 November, 2020. (Invited Talk)

Title of the talk: Nano dimensional Clay minerals: the ideal host material to manipulate the properties of organic molecules

62. “National Webinar on Recent Advances in Materials Science-2020” organized by Department of Physics, Govt. Degree College Kamalpur, Tripura on 19th September, 2020. (Invited Talk)

Title of the talk: Introduction of Nanotechnology with a glimpse of future applications.

61. “International Web Conference on Advance Research in Science, Humanities and Social Science (IWCARSHSS 2020)” organized by MBB University, Tripura, India during 9-10 July, 2020. (Invited Talk)

Title of the talk: Organo-clay hybrid Films: Suitable for Optical memory, Switching & sensing applications

61. Celebration of International Science Day by M.B.B. University, Agartala, Tripura on 28th Feb., 2020

Title of the talk: Beauty of Nanotechnology with glimpse of probable future applications (Invited Talk)

60. 31st MRSI AGM cum 2nd materials conclave (Invited Talk)

Organized at CGCRI, Kolkata during 11-14th February, 2020.

Title of the talk: Clay minerals – the ideal host material to manipulate the properties of organic molecules

59. National conference on “Application of Nanotechnology and Biotechnology in daily life (NSW-ANBDL)” to be held from 26th to 28th September 2019 at Sibsagar College, Joysagar, Assam, India.

Title of the talk: Organo – clay supramolecular assemblies with colour switching properties. (Invited Talk)

58. Attended International webinar on Quantum Materials and Nanoparticles for Advanced Applications organized by Kamraj College, Tamilnadu, India; Date: 06.08.2020

57. Attended International webinar, Recent Trends in Condensed Matter Physics & Applications (RTCMPA)-2020 organized by the Department of Physics, Kulti College in collaboration with IQAC, Kulti College. Date: 22.08.2020 (3.00 PM-6.00PM)

56. Attended webinars on “Research Projects: Conceptualisation to Implementation organized by American Chemical Society (ACS)

By Professor Sandeep Verma, Secretary, Science and Engineering Research Board, DST, Govt. of India
4th July, 2020 (6.00 – 7.00 PM)

55. Organo-clay hybrid Films: Suitable for Optical memory, Switching & sensing applications
“International Web Conference on Advance Research in Science, Humanities and Social Science (IWCARSHSS 2020)” organized by MBB University, Tripura, India during 9-10 July, 2020.

54. Beauty of Nanotechnology with glimpse of probable future applications

Celebration of International Science Day by M.B.B. University, Agartala, Tripura on 28th Feb., 2020

53. Clay minerals – the ideal host material to manipulate the properties of organic molecules

31st MRSI AGM cum 2nd materials conclave click for details

Organized at CGCRI, Kolkata during 11-14th February, 2020.

52. Organo – clay supramolecular assemblies with colour switching properties

National Seminar and Workshop on Applications of Nanotechnology and Biotechnology in Daily Life (NSW-ANBDL)

26-28 September, 2019, Sibsagar College, Sibsagar, Assam, India.

51. Clay mineral as the ideal host material to prepare organin – inorganic hybrid supramolecular assembly (Invited Talk)

National Conference on Atomic, Molecular and Nano Sciences (NCAMNS-2019)

Organized by Department of Physics, Aliah University, Kolkata, India, 3 – 4 April, 2019

50. Beauty of Nano Technology: A glimpse of Future Application (Invited Talk)

Induction Training Programme of Faculty, organised by Faculty Development Center, Tripura University.

1 – 30 November, 2017

49. The Beauty of Material Science with special emphasis on Nanotechnology (Invited Talk)

Faculty Development Program on Nanotechnology: Applications in Science & Engineering in Women’s Polytechnic, 16-18, October, 2017

48. The Beauty of Material Science (Invited Talk)

Research Scholar’s Training Program” organized by Faculty Development Centre, Tripura University, 28th April to 4th May, 2017

47. Thin Films and Nanoscience – glimpse of recent developments (**Invited Talk**)

Workshop on PHOTONICS, ELECTRONICS, NANOTECHNOLOGY, INTEGRATED CIRCUITS AND SYSTEMS (PHOENICS-2016), February 29 – March 4, 2016
A UGC Networking Resource Center in Physical Sciences (UGC-NRCPS) Program
Organized jointly by Institute of Radio Physics & Electronics, University of Calcutta and Department of Electrical Engineering, Tripura University

46. Nano – clay Laponite as Host Template to Enhance the Mechanical Stability of SHG active Thiocyanine Dye in ultrathin films **(Invited Talk)**
16th Asian Chemical congress **(International Conference)**
Organized by Federation of Asian Chemical Societies (FACS) which comprises of 33 chemical societies of the nations in the Asia Pacific region held at Dhaka, Bangladesh during 16 – 19 March, 2016

45. Organo – Clay Hybrid Nano Films **(Invited Talk)**
National Seminar on “Recent Trends on Material Science” at DDM college, khowai, Tripura on 1st March, 2016

44. FRET based sensors **(Invited Talk)**
National Conference NCRTRP-2015 Women’s College, Agartala, Tripura during 23-24 July, 2015

43. Higher Education – Research and developments **(Invited Talk)**
National Science Day celebration at Women’s college, Agartala, Tripura on 28th February, 2015

42. Nanodimensional Organo-Clay Hybrid Films with Improved Functionality **(Invited Talk)**
International conference on “Organic Devices: The Future Ahead” at Bhabha Atomic Research Centre, Mumbai, India during March 3-6, 2014. **(International)**

41. Nano-mechanics of single clay sheet **(International)**
International conference on Material Science (IS2013) Feb 21-23, 2013
Department of Physics, Tripura University, Tripura

40. Construction of basic and universal molecular logic gates on the basis pH sensitiveness of dsDNA
National conference on recent trends of research in Physics Feb 3-4, 2012
Department of Physics, Tripura University, Tripura

39. Clay sheets: the natural nano materials **(International)**
33rd annual conference of the Institute of Indian Geographers & International seminar on population, development & disaster management Feb 8-11, 2012
Department of Geography & Disaster Management, Tripura University, Tripura

38.
(i) Effect of Nano-Clay Layers on Fluorescence Resonance Energy Transfer Between Organic Dyes
(ii) Mechanical properties of nano-dimensional Clay Mineral Layers
Euroclay – 2011 held at ANTALYA June 26 – July 1, 2011 **(International)**
European Clay Groups Association (ECGA) & Turkish National Committee on Clay Science

37. Mechanics of nano-dimensional Clay mineral Sheets **(International)**
International conference on emerging areas of chemistry Jan 12-14, 2011
Department of Chemistry, Tripura University, Tripura

36. Nano dimensional organo – clay hybrid films
Fifteenth national conference on surfactants, emulsions and biocolloids – 2011 Dec 27-29, 2011
Department of Chemistry, Tripura University, Tripura

35. Langmuir-Blodgett films of Nano dimensional organo-clay hybrid films **(Invited Talk)**
International Science Seminar organized by The Asiatic Society of Bangladesh, Dhaka, during 28-29 Nov., 2011 **(International)**

- 34.** Preparation and characterization of nano-clay hybrid monolayer films
21st Annual General meeting of Material research Society of India to be held on 9-11 Feb., 2010 at Sardar Patel University.
- 33.** Hybrid Langmuir-Blodgett Monolayers of Nano Clay: An Infrared and Atomic Force Microscopy Study.
International Conference on fundamental and applications of Nanoscience & Technology Dec 9-11, 2010
School of Materials Science & Nanotechnology, Jadavpur University, Kolkata, India. **(International)**
- 32.** Organic molecules adsorbed onto nano-clay and Langmuir-Blodgett (LB) films: trace of FRET
97th Indian Science Congress, January, 3- 7, 2010, University of Kerala
- 31.** Organo-clay hybrid films: An AFM and spectroscopic investigations
7th National Conference in Physics held at Department of Physics, Manipur University Oct 5-6, 2010
Department of Physics, Manipur University, Manipur, India
- 30.** An AFM investigations of hybrid organo-clay films
Seminar on "Frontier Areas of Chemistry" Sept 3, 2010
Department of Chemistry, Tripura University
- 29.** Influence of MgCl₂ on the organization of nano-clay sheet in the organo-clay hybrid films
National Seminar on Condensed Matter Physics (SCMP2010) Feb 16, 2010
Department of Physics, Tripura University
- 28.** Mechanics of Clay Mineral Sheets: Hectorite and Saponite
International Clay Conference, June, 14 – 20, 2009; Castellaneta marina (TA) Italy **(International)**
- 27.** Spectroscopic characterization of Layer-by-layer self-assembled films of Oxazine 4 (Ox4) and effects of nano-clay platelets incorporation into the LbL films.
Discussion meeting on Statistical and Condensed Matter Physics, 31st Oct – 1st Nov, 2009, organized by Department of Physics, Guwahati IIT, assam.
- 26.** Effect of nano-clay platelets on the J-aggregation of thiocyanine dye organized in Langmuir-Blodgett films.
CMDAYS-09, August 26-28, 2009, Department of Physics, Jadavpur University West Bengal
- 25.** Direct observation of reaction-kinetics of Organo-Clay hybrid films at air-water interface by in-situ Infrared Reflection Absorption Spectroscopy and AFM
VI th National Conference of the Physics Academy of North East on Physics research in North East, April 2-4 (2009), Department of Physics, Tripura University, Suryamaninagar
- 24.** Molecular self assembly of Ultra-thin films by Electrostatic Layer by Layer (ELBL) Technique
VI th National Conference of the Physics Academy of North East on Physics research in North East, April 2-4 (2009), Department of Physics, Tripura University, Suryamaninagar
- 23.** Nano dimensional aggregates of schicago sky blue onto solid substrate
96th Indian Science Congress, January, 3- 7, 2009, NEHU, Shillong
- 22.** Hybrid Langmuir-Blodgett Monolayers of Nano Clay: An Infrared and Atomic Force Microscopy Study.
96th Indian Science Congress, January, 3- 7, 2009, NEHU, Shillong
- 21.** Investigation of a two dimensional phase separation between RhB and NK by fluorescence imaging microscopy
Organized by Department of Physics, karimganj College, Assam, India

- 20.** Spectroscopic characterizations of layer – by – layer self assembled DNA films
International Workshop and Conference on: Statistical Physics Approaches to Multi-disciplinary Problems
January 07 – 13, (2008), Department of Physics, IIT Guwahati, India
- 19.** Fabrication and characterizations of rosebengal self assembled films
Condensed Matter Days-2007, August 29-31, 2007 organized by N.I.T, Rourkela, Orissa
- 18.** Langmuir-Blodgett films of water soluble DNA molecules
Condensed Matter Days-2007, August 29-31, 2007 organized by N.I.T, Rourkela, Orissa
- 17.** Formation of stable Langmuir and Langmuir-Blodgett (LB) films of 2-(4-Biphenyl)-5 phenyl-1,3,4-oxadiazole and their spectroscopic characterizations
V th PANE conference, 1-2 March, 2007, Organized by Department of Physics, Gauhati University, Assam, India.
- 16.** Miscibility of two components in the binary mixture of 9-phenyl anthracene mixed with stearic acid and polymethyl methacrylate at the air-water interface
V th PANE conference, 1-2 March, 2007, Organized by Department of Physics, Gauhati University, Assam, India.
- 15.** Interaction kinetics of rosebengal and CTAB with stearic acid at the air-water interface
V th PANE conference, 1-2 March, 2007, Organized by Department of Physics, Gauhati University, Assam, India.
- 14.** Layer-by-layer self assembled films of DNA
National Conference on Disperse Systems, November 23-25, 2006, Organized by Department of Chemistry, Assam university.
- 13.** Evidence of dimer formation in the mixed LB films of p-terphenyl in different matrices
National Conference on Disperse Systems, November 23-25, 2006, Organized by Department of Chemistry, Assam university.
- 12.** Photophysical studies of Layer-by-Layer Multilayer assemblies of Amaranth PAH Self assembled Films
National Conference on Disperse Systems, November 23-25, 2006, Organized by Department of Chemistry, Assam university.
- 11.** Slippage Effect and immobilization of DNA in Layer-by-Layer self assembled films
National Conference on Disperse Systems, November 23-25, 2006, Organized by Department of Chemistry, Assam university.
- 10.** Formation of stable Langmuir monolayer of water soluble *N – Cetyl N, N, N* -trimethyl ammonium bromide due to the interaction with SA molecules at the air-water interface
S. Deb, S. A. Hussain and D. Bhattacharjee
PANE conference – 2004, November 5 & 6, 2004, Department of Physics, Gurucharan College, Silchar-788004, Assam
- 9.** Photophysical studies of mixed Langmuir-Blodgett films of 2 – 2' – *Biquinolene* molecules mixed with two different matrices.
PANE conference – 2004, November 5 & 6, 2004, Department of Physics, Gurucharan College, Silchar-788004, Assam
- 8.** Time dependent change in mixed Langmuir-Blodgett films of 9-Phenyl Anthracene in PMMA and SA matrices
National Symposium on Impact of Chemistry on Life and Society (NSICLS)
October 1-3, 2004, Department of Chemistry, Tripura University, Suryamaninagar-799130, Tripura

- 7.** Spectroscopic characterizations of mixed Langmuir Blodgett films of PBBO molecules.
National Symposium on Impact of Chemistry on Life and Society (NSICLS)
October 1-3, 2004, Department of Chemistry, Tripura University, Suryamaninagar-799130, Tripura
- 6.** Formation of stable Langmuir films of water soluble *N* – *Cetyl N,N,N* -trimethyl ammonium bromide at the air-water interface
National Symposium on Impact of Chemistry on Life and Society (NSICLS)
October 1-3, 2004, Department of Chemistry, Tripura University, Suryamaninagar-799130, Tripura
- 5.** Langmuir-Blodgett technique a unique tool for fabrication of Ultrathin Organic Films.
CMDAYS-04, August 25-27, 2004, Department of Physics, NEHU, Shillong-793022
- 4.** Ageing effect of mixed Langmuir-Blodgett film of 9-Phenyl Anthracene in PMMA and SA matrices.
CMDAYS-04, August 25-27, 2004, Department of Physics, NEHU, Shillong-793022
- 3.** Photophysical characteristics of mixed Langmuir Blodgett films of PBBO molecules.
CMDAYS-04, August 25-27, 2004, Department of Physics, NEHU, Shillong-793022
- 2.** Langmuir Blodgett films: An organized assemblies of molecules.
Third Regional Conference on Physics Research in North East India.
November 09, 2002, Organized by Department of Physics, Dibrugarh University
Dibrugarh-786004, Assam, INDIA.
- 1.** Spectroscopic study of nonamphiphilic buPBD assembled onto Langmuir-Blodgett Films.
Third Regional Conference on Physics Research in North East India.
November 09, 2002, Organized by Department of Physics, Dibrugarh University
Dibrugarh-786004, Assam, INDIA.

Annexure - F

Books authored / edited

1. Langmuir-Blodgett Films [click for more details / purchase information](#)

Author: **Dr. S. A. Hussain**

Paperback: 64 pages

Publisher: Grin Verlag GmbH (29 December 2011)

ISBN-10: 3656089442

ISBN-13: 978-3656089445

2. Proceedings of the Conference on Recent Trends of Research in Physics (CRTRP) Proceedings of the Conference on Recent Trends of Research in Physics (CRTRP-2012) [click for more details / purchase information](#)

Edited by **Dr. S. A. Hussain**; Dr. A. Guha; Prof. D. Bhattacharjee; Prof. B. K. De; Dr. S. Chattopadhyaya

Publisher: Research India Publications, New Delhi (Edition : 2012)

Pages 177

ISBN: 978-81-904362-9-8

3. Research in Physics in north-East India [click here for more details](#)

Edited by **Dr. S. A. Hussain**; Dr. A. Guha; Prof. D. Bhattacharjee; Prof. B. K. De; Dr. S. Chattopadhyaya

Publisher: acb publications, Kolkata, India (2010)

ISBN No: 81-87500-53-0

4. Text of class IX SCIENCE based on TBSE new syllabus “AdhunikBigganSashtra” [click here for details](#)

Author: **Dr. S. A. Hussain**

Publisher: Goodluck Publisher, Agartala, Tripura (2016)

5. Special Issue on “Material Science” published in Invertis Journal of Science and Technology, Vol. 7, No. 2, 2014. [click here to download the full issue](#)

Editor: **Dr. S. A. Hussain**

6. Special Issue of the journal Physics Express (Cognizure), vol. 4 (2014) [see details](#) [click for full text pdf.](#)

Editor: **Dr. S. A. Hussain**

7. Special Issue of the journal Indian Journal of Physics (Springer), June 2010 volume 84 (6).

Editor: **Dr. S. A. Hussain**

Annexure - G

Edited special issues in journals:

1. Edited a special issue in Elsevier journal “Materials Today: Proceedings” Volume 5, Issue 1, Part 2, Pages 2023-2400 (2018). [click here](#) new
2. Served as the Guest Editor of Special Issue on “Material Science” published in Invertis Journal of Science and Technology, Vol. 7, No. 2, 2014. [click here](#) to download the full issue
3. Served as the Guest Editor of Physics Express (Cognizure), vol. 4 (2014) – Special issue – proceedings of the ICMS2013 conference organized by Department of Physics, Tripura University during 21-23, February, 2013. see details [click for full text pdf](#).
4. Served as one of the Guest Editors of Indian Journal of Physics (Springer), June 2010 volume 84 (6) [click here](#)

References:

<p>Dr. D.K. Aswal Director National Physical Laboratory Dr. K.S. Krishnan Marg New Delhi – 110012, India Prof. D. K. Aswal, Head, Thin Films Devices Section, Technical Physics Division, Bhabha Atomic Research Center (BARC), Mumbai. Mobile: 98 19 54 53 01 Email: dkaswal@nplindia.org dkaswal@yahoo.com</p>	<p>Prof. Amir Berman Department of Biotechnology Engineering Room 220, Building 39 Ben-Gurion University of the Negev Israel Email: aberman@bgu.ac.il</p> <p>Prof. Juraj Bujdak Dept. of Physical & Theoretical Chemistry Faculty of Natural Sciences Comenius University in Bratislava Slovakia juraj.bujdak@uniba.sk</p>
<p>Prof. Robert A. Schoonheydt Centre for Surface Science and Catalysis K. U. Leuven, Belgium 14-18 February, 2010 robert.schoonheydt@kuleuven.be</p>	<p>Prof. Jun Kawamata Department of Chemistry Faculty of Science Yamaguchi University, Japan 20 -24 February, 2013 j_kawa@yamaguchi-u.ac.jp</p>
<p>Dr. MRINAL PAL Principal Scientist Sensor & Actuator Division CSIR-Central Glass & Ceramic Research Institute Council of Scientific & Industrial Research Kolkata-700032, Government of India palm@cgcric.res.in / mrinalp@yahoo.com</p>	<p>Prof. Tanusri Saha-Dasgupta F.A.Sc., F.N.A., F.N.A.Sc., etc. Senior Professor & Satyendra Nath Bose Chair Head, Center for Mathematical, Computational and Data Science Indian Association for the Cultivation of Science t.sahadasgupta@gmail.com</p>