

## DEPARTMENTAL HIGHLIGHTS (2020)

### ❖ AWARDS AND RECOGNITIONS

#### WON BY FACULTY

**Subit K Saha:** Chairperson in a technical session under Physical Chemistry Section in online 57<sup>th</sup> Annual Convention of Chemists, 2020 & International Conference on Recent Trends in Chemical Sciences during 26<sup>th</sup> to 29<sup>th</sup> December, 2020 organized by Indian Chemical Society, Kolkata.

**Jayanti S:** Invited as Judge for “20<sup>th</sup> Annual Research awards” KVRSS 2019-2020, on **13-06-2020**.

**Jayanty S:** Invited as a Panel of Judge for the “9th SPARK-Innovation awards” for school children of southern states held on **08-02-2020** at Hyderabad.

Amit Nag: Co-Principal Investigator of an ongoing CSIR project. Has been the Principal Investigator of a completed DST project.

#### WON BY STUDENTS

1. Ms. Susmita Roy received the ACS Best Oral Presentation Award in SAIS Symposium 2020, at Indian Association for the Cultivation of Science, Kolkata.
2. Mr Thirupathi Reddu Penjarla has won best poster award in Recent Advances in Organic, Medicinal and Biological Chemistry”, 8-9th July 2020, VIT- Chennai.
3. Ms. Susmita Roy received the ACS Best Oral Presentation Award in SAIS Symposium 2020, at Indian Association for the Cultivation of Science, Kolkata.

### ❖ PATENTS FILED/PUBLISHED AND GRANTED

1. Patent Published on 24-07-2020 by Jayanty Subbalakshmi, Principal Inventor, Title: Compounds for use as anti-cancer agents and a process for synthesizing the same, Birla Institute of Technology and Science-Pilani, Hyderabad campus. Co-Inventors: Anwar Hussaini SD, Balaram Ghosh, Yamini Bobde. Application number, 201941002679

2. Patent Published on 27-11-2020 by Jayanty Subbalakshmi, Principal Inventor, Title: Novel Xanthene amides and processes for preparing the same, Birla Institute of Technology and Science-Pilani, Hyderabad campus. Co-Inventors: Himabindu Battula, Balaram Ghosh, Yamini Bobde. Application number, 201911020063

3. Patent Filed on 19-05-2020 by Jayanty Subbalakshmi, Principal Inventor, on Amide derivatives of Aminopentanoic acid. Birla Institute of Technology and Science-Pilani, Hyderabad campus.

### **CONFERENCES/WORKSHOPS/SEMINAR ATTENDED/PAPERS PRESENTED**

#### **❖ NATIONAL**

- K Sumithra attended a Half-day virtual meeting on Theoretical Chemistry at condensed phases (28 September, 2020) organized by BARC and IIT Bombay, 28<sup>th</sup> September, 2020.
- Sahithi and K. Sumithra poster: Band gap engineering in intrinsically doped bilayer graphene. National Conference on Frontiers in Medicinal Chemistry and Nanochemistry, Directorate of Higher Education, Government of Goa, 14<sup>th</sup> and 15<sup>th</sup> February 2020. (Poster).
- K Sumithra attended Three Days Virtual lecture workshop on “Simulation and modeling in Chemistry” from 2<sup>nd</sup> to 4<sup>th</sup> December 2020 Sponsored by Indian Academy of Science, Bengaluru, organized by NIT Surathkal.
- K Sumithra attended Global Meet organized by BITS, October, 2020
- N. Adinarayana, S. Srinivarao, N. Sridhar, S. Murugesan, and K. V. G. Chandra Sekhar. Design, synthesis and biological evaluation of 2-aminobenzimidazoles as Quorum Sensing inhibitors in *Pseudomonas aeruginosa*. 26<sup>th</sup> Indian Society for Chemists and Biologists Conference jointly organized with 5<sup>th</sup> Nirma Institute of Pharmacy International Conference, Ahmadabad, 22<sup>nd</sup>-24<sup>th</sup> January 2020.
- B. Karankumar, Faheem, G. Surajpyarelal, S. Murugesan, and K. V. G. Chandra Sekhar. In-silico target identification study of novel anti-leishmanial  $\beta$ -carboline agents.

26<sup>th</sup> Indian Society for Chemists and Biologists Conference jointly organized with 5<sup>th</sup> Nirma Institute of Pharmacy International Conference, Ahmadabad, 22<sup>nd</sup>-24<sup>th</sup> January 2020.

- Faheem, G. Surajpyarelal, B. Karankumar, S. Murugesan, and K. V. G. Chandra Sekhar. In-silico target identification study of novel anti-leishmanial agents. 26<sup>th</sup> Indian Society for Chemists and Biologists Conference jointly organized with 5<sup>th</sup> Nirma Institute of Pharmacy International Conference, Ahmadabad, 22<sup>nd</sup>-24<sup>th</sup> January 2020.
- Almas Shamaila Mohammed, Aniket Balapure, Mahammed Nanne Khaja, Ramakrishnan Ganesan and Jayati Ray Dutta, Naked-eye detection of Hepatitis C viral RNA from clinical samples - Virtual conference in CCMB, HySci-2020, 17-18 Dec, 2020, India.
- Almas Shamaila Mohammed, Aniket Balapure, Mahammed Nanne Khaja, Ramakrishnan Ganesan and Jayati Ray Dutta, Biosensing of Hepatitis C Viral RNA from Clinical specimens - National Virtual Conference on 'Current Trends and Challenges in Plant Biochemistry and Biotechnology', 20-21 Nov, 2020, BITS-Goa, India.
- Dr. Chanchal chakraborty, presented at SAIS Symposium 2020 (webinar), Organized by the School of Applied and Interdisciplinary Sciences, IACS, Kolkata India. 04-05 December, 2020
- Single crystal XRD structural studies of nickel complexes of 1,10-phenanthroline and isophthalic acid, Sabitha D., Krishnan Rangan, *National Symposium on Convergence of Chemistry & Materials (CCM 2019)*, December, 2019, BITS-Pilani Hyderabad Campus, Hyderabad.
- Crystal structure and spectroscopic studies of phendione and its cobalt complex, Ravallika Aluri, Krishnan Rangan, *National Symposium on Convergence of Chemistry & Materials (CCM 2019)*, December, 2019, BITS-Pilani Hyderabad Campus, Hyderabad.
- Towards rational design of functional KLVFF based amyloid material for toxic metal binding, Aishwarya Natarajan, Ramakrishna Vadrevu, Krishnan Rangan, *National Symposium on Convergence of Chemistry & Materials (CCM 2019)*, December, 2019, BITS-Pilani Hyderabad Campus, Hyderabad.

#### ❖ INTERNATIONAL

- **S K Saha** attended 57<sup>th</sup> Annual Convention of Chemists, 2020 & International Conference on Recent Trends in Chemical Sciences during 26<sup>th</sup> to 29<sup>th</sup> December, 2020 organized by Indian Chemical Society, Kolkata.
- **Anupam Bhattacharya** virtually participated in “Recent Advances in Organic, Medicinal and Biological Chemistry”, 8-9th July 2020, VIT- Chennai.”
- **Anupam Bhattacharya** presented an ePoster: Total synthesis of quinolineserrulatane alkaloid ( $\pm$ )-Microthecaline A: First example of a natural product bearing tricyclic quinoline-serrulatane scaffold.
- B. Karankumar, Faheem, S. Murugesan, and **K. V. G. Chandra Sekhar**. Preliminary investigation of drug repurposing as a direction towards anti-Leishmanial drug discovery, International Conference on Drug Discovery (ICDD2020), BITS-Hyderabad, 29<sup>th</sup> February-2<sup>nd</sup> March 2020.
- **Jayanty Subbalakshmi** participated in Wiley online seminar on “General Practices for Composing a High Impact Paper” July 30, 31, August 5. Received Certification of Completion

#### ❖ LIST OF BOOKS/ BOOK CHAPTERS PUBLISHED

Sustainable Chemistry Series: Volume 5 Solution Combustion Synthesis of Nanostructured Solid Catalysts for Sustainable Chemistry; Chapter: Solution combustion synthesis related to photocatalytic reactions; Sounak Roy, S. Challagulla, World Scientific (2020)

DOI: <https://doi.org/10.1142/q0257> ISBN: 978-1-78634-869-2 (Hard Cover)

#### ❖ INVITED TALKS GIVEN BY BITS FACULTY

1. N. Rajesh, delivered an invited talk on “*Realizing the significance of biopolymer composites and nano carbon adsorbents for toxic metals*” at First International Online Conference on Blends, Composites, Bio-Composites and Nanocomposites (ICNC–2020), Organized by MG University Kerala and Siberian Federal University, Russia.

2. K. Sumithra delivered an invited talk: Computational study of adsorption of some pollutant gases on chemically modified graphene surfaces, National Conference on Frontiers in Medicinal Chemistry and Nanochemistry, Directorate of Higher Education, Government of Goa, 14th and 15th February 2020.
3. K. Sumithra delivered an invited talk "Adsorption and sensing of some pollutant gases on chemically modified graphene surfaces", BITS Pilani Global meet on Computational Modeling and Simulation: Recent innovations, challenges, and perspectives. October 30, 2020.
4. Dr. Chanchal Chakraborty delivered the invited lecture in SAIS Symposium 2020, at Indian Association for the Cultivation of Science, Kolkata on December 4, 2020.
5. Prof. Ramakrishnan Ganesan presented an invited talk on the topic of 'Solid State Synthesis of Functional Nanomaterials' in an international symposium on 'Recent Advances in Electrochemical Sciences for Energy and Environment' organized by Sathyabama Institute of Science and Technology held on 15<sup>th</sup> June 2020.
6. Prof. Ramakrishnan Ganesan presented an invited talk on 'Solid State Synthesis of Photocatalytically Active Functional Nanocomposites' in the SPARC sponsored International Symposium organized by Defense Institute of Advanced Technology (DIAT), Pune on 17<sup>th</sup> September 2020.
7. Prof. Ramakrishnan Ganesan presented an invited lecture on the topic 'Colloids and Surfactants in Nanotechnology' in the refresher course conducted by the National Centre for Nanoscience and Nanotechnology, University of Madras on 9<sup>th</sup> October 2020.
8. Dr. Krishnan R; Green Chemistry, at the St. Francis College, Begumpet, Hyderabad.
9. Invited talk delivered by Jayanty S on 31st January, 2020 on "Polymers" at the Final Quiz Competition (South zone) organized by Dr. K.V.Rao Scientific Society for school students at our Campus.

10. Invited talk given by Jayanty S on "Career Development" for Intermediate College students on 09-02-2020 in F103 at our campus organized by Veda Scio Foundation.

❖ **INVITED TALKS/DISTINGUISHED LECTURES ARRANGED BY THE DEPARTMENT**

01. "Tweezers with a Twist: New Fluorescent Molecular Tweezers and the Surprizes Therein" by Professor Asheesh Srivastava from IISER, Bhopal on the topic on 5<sup>th</sup> Feb, 2020
02. "Chemistry of molecules in solid-state: mechanical effects" by Prof. C Malla Reddy from IISER, Kolkata on 30 June, 2020.
03. "Connecting the Dots: Bringing Ph back into the Ph.D" by Prof. Abijit Patra, IISER Bhopal, on July 24, 2020.
04. "JAGADISH CHANDRA BOSE: THE ROAD NOT TAKEN" by Professor Gautam Basu, Bose Institute Kolkata, on July 28, 2020
05. "Using Organic Chemistry to Generate a Smelly Gas", by Prof. Harinath Chakrapani, IISER Pune, on August 14, 2020
06. "Porous Molecular Solid for Separations"; by Dr. Tamoghna Mitra, School of Material and Chemical Engineering, Taizhou University, Taizhou, China, on September 26, 2020
07. "Green Chemistry and Engineering from a Societal Perspective" Dr. Ranjan Jana, Organic & Medicinal Chemistry Division, CSIR-Indian Institute of Chemical Biology, Kolkata, on October, 3, 2020
08. "Biomedical Applications and Biodegradability of Graphene Family Materials", Dr. Rajendra Kurapati, National University of Ireland, Galway, on October 31, 2020

❖ **DEPARTMENTAL ASSOCIATIONS ACTIVITIES**

Chemistry Association facilitated the following events:

Freshmen orientation for 2020 chemistry students: 4th December, 2020. The event was diligently organized by the members of Alchemy. It was held as a welcome party for the batch of 2019-2024 B2 students. The purpose of this event was to make every "fresher" feel welcome and an integral part of the BITS family and to give them the confidence they need to take on the challenges of their years ahead.

An interview session was held with Dr. Ruchi Jain Dey, Department of Biological Sciences on various virus related diseases, corona family and Covid-19.