

Shri R.L.T. College of Science, Akola

DEPARTMENT OF CHEMISTRY

'Crystal Club'

Report

It is with great pleasure I share with you the annual report of chemistry department for the session 2019-2020 of Shri R.L.T. College of Science, Akola. Department is contributing significantly in creating and disseminating knowledge in various areas through undergraduate, postgraduate and doctoral programmes and providing an education through practically focused, multidimensional, quality teaching-learning process in excellent academic environment. In our pursuit of excellence, we persistently seek and adopt innovative methods to improve the quality of education. The benchmarks we set for ourselves in the field of teaching and research propel us in our journey towards excellence. Faculty of the department comprises qualified and goal-oriented members and always at forefront to organize various academic activities to inculcate effective learning abilities and research skills, to extend the intellectual depth, to make students creative, innovative and self-reliant.

To expose the students in the frontier areas in chemistry and to enhance employability skill of them, department is always ahead in performing the various academic activities. The important academic activities and the programmes organized by the department of chemistry during the session 2019-20 are as mentioned below.

Inauguration of 'CRYSTAL Club'-

To enhance the academic activity of student and to increase the participation of student in social activity, department of chemistry has decided to establish one student club and in view of this our department establishes '**CRYSTAL Club**' (*Chemical Research by Young Scientist & Technicians Aborting Lacking of Society*) which was inaugurated on 7th September 2019. **Principal Dr. V. D. Nanoty** was the president for this function and Dr.U.K.Bhalkar Head, Department of Microbiology was the inaugurator for the function. Presence of head's of various departments had been added grace to this function. Ms.

Roshni Gallani was the student President of this club and students from M.Sc. I & II year are the members of this club with some officiating body.

Poster Presentation Competition:

On occasion of Golden Jubilee year of The College, Department of Chemistry's CRYSTAL Club Organizes Intercollegiate poster Exhibition cum Competition on the topic Green Chemistry and properties of elements . Also the students of M.Sc.II year Represented different elements their importance and properties on occasion of International year of periodic table dated on 19th October 2019. 20 Students from various colleges of SGB Amravati University participated in the Poster competition. Dr. V.D. Nanoty sir, Principal Shri R.L.T. College of Science was the President, Dr. M.T. Sangole, Asst. Professor Shri Shivaji College, Akola and Mrs. Sakhare , Sinha College Patur were the Jury for te Programme. Many students visited the Exhibition and got benefited by this Programme. All the staff members and members of crystal club organized the event successfully.

The aim of the poster Presentation Competition was to bring the Environment awareness among the students and also to cover their academic syllabus. This activity also motivates the student to participate in various co-curricular activities and also develop self confidence in them.

First position: Ku. Komal S. Pote Shri Shivaji Arts, Commerce & Science College, Akola

Second position: Ku. Sonali S. Wakode, Shri R.L.T. College of Science, Akola

Third position: Ku. Pratiksha H. Mhatre, Shri R.L.T. College of Science, Akola

1st Consolation prize: Poonam V. Guhe, & Mayuri S. Nawalkar, Shri Shivaji Science College, Akot.

2nd Consolation prize: Shruti A. Panchbhai, Shri R.L.T. College of Science , Akola

The results of “Oral Presentation of Periodic Properties of the Element”,

First position: Ku Supriya Sahu, Shri R.L.T. College of Science, Akola

Second position: Ku. Shubhangi G. Dhole, Shri R.L.T. College of Science, Akola.

The important academic activities of department of chemistry during the session 2019-20 are as highlighted below.

- **Seminars and group discussions** - The seminars and group discussions of B.Sc.-II & III students were conducted in the months of September, October-2019 and February, March-2020 under the supervision of **all the staff members of the department.**

- **Organization of Online Chemistry Aptitude Test (Quiz Competition) for B.Sc.- Students:**

Department of Chemistry Developed e-module of online test conduction and conducted the online aptitude quiz test of B.Sc-I students on 10st March 2020. The student who stood first was given a text book in the form of gift. Total 70 students participated in this test. Dr. Aashish Sarap Shri V.D. Deotale and Dr. P.T. Agrawal

- ***Atchem*... aptitude test in chemistry** - To create interest in chemistry, assess the conceptual understanding and to upgrade the subject knowledge, aptitude test in chemistry was conducted for B.Sc.-III year students on 4th March 2020. Ms. Megha A. Pawar and Ms. Monal N. Bhoje have achieved the 1st and 2nd position respectively. Students were given Cash Prize of Rs. 501/- and 301/- respectively for 1st and 2nd Position. Total 356 students were participated in this test. Test was co-ordinated by Dr. Pradip P. Deohate.

- **Poster Competition on Periodic Table:**

On the occasion of Golden Jubilee Year of Shri RLT College of Science Akola and International Year of Periodic Table of Chemical Elements, Department of chemistry organized the Poster competition on **Periodic Table** on **February 4 2020** in Room No. 5 at 2.00 pm . Dr. V. D. Nanoty, Principal, Shri R.L.T. College of Science, Akola had inaugurated the Poster competition, Dr. P. T. Agrawal, Head, Department of chemistry was the chief guest the event and all the faculties were present to encourage the students. As a part of curriculum and Celebration of Golden Jubilee Year of Shri RLT College of Science, in all 114 students were presented the poster on Periodic Table prepared by their own in a group of five. They had illustratively explained the s-block, p-block, d-block, f-block and properties of metals and non metals etc. The two groups were awarded with first and second prize and felicitated by the hands of Dr. V. D. Nanoty sir, Dr. P. T. Agrawal and Dr. P.P. Deohate Sir by offering books and certificate and Dr K. M. Heda, Mr. S. C. Zyate Sir were worked as judges for the poster competition. On the occasion student also celebrated the

birthday of Dr. P. P. Deohate Sir wishing him healthy life and prosperity in 2020. DR. Pravin Kawle was the Incharge for this activity.

General Aptitude Test in Chemistry:

On the occasion of Golden Jubilee Year of Shri RLT College of Science Akola and International Year of Periodic Table of Chemical Elements, Department of chemistry organized the **General Aptitude Test in Chemistry** on February 26 2020 in digital class room at 2.00 pm. Dr. V. D. Nanoty, Principal, Shri R.L.T. College of Science, Akola and Dr. P. T. Agrawal, Head, Department of chemistry had visited and encourage the students. In order to create interest among the students about chemistry and celebration of Golden Jubilee Year of Shri RLT College of Science, in all 26 students from B.Sc-III had been participated for the test. The AUCTA used to felicitate the top three students every year and they will be awarded with first, second and third prize with medal in annual meet of AUCTA.

Mr. S. C. Zyate Sir and Mr. Jaiswal Sir had conducted the test and worked as invigilators for the test, Ms. Bhandari Madam had evaluated the answer sheet of the students and Dr. Pravin Kawle, Asst. Professor, Department of Chemistry, Incharge, GAT 2020 and teaching staff also took efforts in conducting the test.

Educational Study Tour :

On the occasion of golden jubilee year celebration, the B.Sc.-II (B1) & B.Sc.-III (P1 to P6) year Students from Physics & Chemistry department of Shri R.L.T. College of Science, Akola, visited CSIR-Indian Institute of Chemical Technology (IICT) Hyderabad, Telangana, on National Science Day 28th February 2020. The National Science Day programme was organized by CSIR-IICT, which was attended by the students and faculties of the college. It was great opportunity to listen Shri P. Raghvendra Rao, IAS, Secretary, Department of Chemical and Petrochemical, Ministry of chemical and Fertilizers, Govt. of India, who was emphasized the chemical export and women empowerment in India. He also commented that India would become leading nation in producing antibiotics in near future. The woman has to play vital role in the field of research and development in science. Dr. Chandrasekhar, Director, IICT has also explained the significant contribution of IICT in the discovery of pheromones during the educational visit. He expressed the contentment for working efficiency of women of IICT who representing as a head of five different divisions of research laboratory in IICT. The students and faculties had also visited x-ray machine,

PP2, Semi chemicals, NMR Machine, Applied biology, BEES Lab & few other labs. A group of students interacted with scientist and researchers of various laboratories.

Apart from this students accompanied with faculties also visited Birla planetarium and Museum, Salar Jung Museum on 29 February 2020 and collected some useful information regarding space science and historical objects. The department of Physics and Chemistry of Osmania University was also became a part of educational tour, where students gone through X-ray diffraction techniques and UV-Visible spectrophotometer technique operation on 01/03/2020. Dr. Prasad, H.O.D. of dept. of Physics, Prof. Ravindra, B.O.S. chairman in the subject of Physics and Dr. Venkiah, H.O.D. dept. of Chemistry, have encouraged the students to pursue post graduation in relevant subject and work for betterment of society. The journey started on 27th February 2020 and come to an end on 2nd of March 2020. In all 38 students and 4 faculties participated in the tour.

The entire tour was planed and organised by Mr. Shailesh Jaiswal Asst. Professor, dept. of Physics and **Dr. Pravin Kawle** Asst. Professor, **Mr. Sankesh Zyate** Asst. Professor and Miss. Nikita Zyate madam from dept. of Chemistry under the guidance of Principal Dr. V.D. Nanoty, Shri R. L. T. College of Science College, Akola and all faculty members of the college.

- **Consultancy services** - Consultancy services like analysis of drinking water, irrigation water, determination of physico-chemical parameters and different types of estimations of samples of projects of school and college students are engaged.

The important achievements of the faculty members of department of chemistry during the session 2019-20 are as highlighted below.

- **Dr. Pradip P. Deohate** has published 5 research papers in national and international journals. He has participated in 4 conferences, 1 workshop and presented 4 research papers. Under his guidance 1 student is doing the Ph.D. research work. He has guided 2 students for research project.
- **Dr. Poonam T. Agrawal** has published 4 research papers in international journal. She has participated in 5 conferences, 1 workshop and presented 5 research papers. She has guided 3 students for research project and one student for Avishkar. She worked as a course coordinator for the four days soft Skill development workshop organized by Shri R.L.T. College of Science, Akola in collaboration with S.G.B. Amravati University Amravati.

She has worked as a resource person and jury member for various academic and scientific programmes. She delivered guest lecture at Shankarlal Khandelwal College, Akola on occasion of Science day on 28th February. She was the course coordinator for Pre-Ph.D course work. She has conducted Trained the Trainer workshop for Avishkar coordinator of various colleges of Akola District. She work as a District Coordinator for District level Avishkar Festival of Sant Gadge Baba Amravati University, Amravati.

- **Dr. Pravin R. Kawle** has published 3 research papers international journals. He has participated in 4 conferences, 2 workshops and presented 4 research papers. He has guided 3 students for research project and one student for Avishkar. He has completed ARPIT Refresher course in Chemistry. He has worked as Jury for Oral Competition of Motivational Science Workshop organized by AUCTA at Chikhaldhara.
- **Dr. Kavita M. Heda** has published 3 research papers in national and international journals. She has participated in 4 conferences, 1 workshop and presented 4 research papers. She has guided 3 students for research project. She has worked as a Coordinator for poster competition programme. She has completed ARPIT Refresher course in New Skills for New Education Architecture.
- **Dr. Aashish G. Sarap** has published 1 research papers in international journal. He has participated in 2 conferences and presented 2 research papers. He has guided 3 M.Sc. students for research project.
- **Mr. Vinod D. Deotale** has published 2 research papers in international journal. He has participated in 2 conferences and presented 2 research papers. Guest lecture in He has guided 3 M.S. students for research project.
- **Mr. Shankesh C. Zyate** has Presented 2 research paper in conference. He has started the NET/SET Coaching class for the M.Sc. Students of our department. He has guided 3 M.Sc. students for research project.
- **Mr. Ankit N. Mishra, and Ms. Kalpana A. Palaspagar** are working for Ph.D. degree in research laboratory of department of chemistry. They have also published research papers in national and international journals, attended the conferences and presented research papers. **Dr. Pravin Kawle, Mr. Sankesh Zyate & Ms. Nikita Awazare** has completed Pre-Ph.D. Course and has applied for Ph.D. from our centre.

Students are at the centre of all endeavors in department of chemistry. During the session 2018-19, additions to the students' achievements are as follows.

- **Ms. Namrata Lohiya** (B.Sc.-III) stood 9th Merit in the Merit list of Sant Gadge Baba Amravati University, Amravati in summer 2019.
- **Ms. Shraddha Akhare** has participated in district and university level research festival "Avishkar" and achieved the colour coat of S.G.B. Amravati University, Amravati guided by **Dr. P.T. Agrawal**.
- **Ms. Shraddha Akhare** (M.Sc.-II) has been achieved 2nd prize of Oral Presentation in National conference on multidisciplinary Research in Science And Technology for Healthy Life style management dated on 24th January.
- **Ms. Shraddha Akhare** (M.Sc.-II) has been achieved 1st prize in university level intercollegiate Research poster competition organized by Shri Shankarlal Kandelwal CollegeeSkola in Collaboration with AUCTA on 3rd March 2020.
- **Ms. Shrutika V. Kadam** (M.Sc.-I) has been achieved 1st prize in State level intercollegiate seminar competition organized by M.S.P.Arts, Sciencee & K.P.Tt Commerece College Manora, on 28th February 2020.
- **Ms. Ankita Koagde** (M.Sc.-I) have been participated in university level intercollegiate Seminar competition organized by Rathod College Murtizapur in collaboration of AUCTA.

Dr. Poonam T. Agrawal
Head, Department of Chemistry
In-charge, P.G. Department of Chemistry.
Shri R.L.T. College of Science, Akola