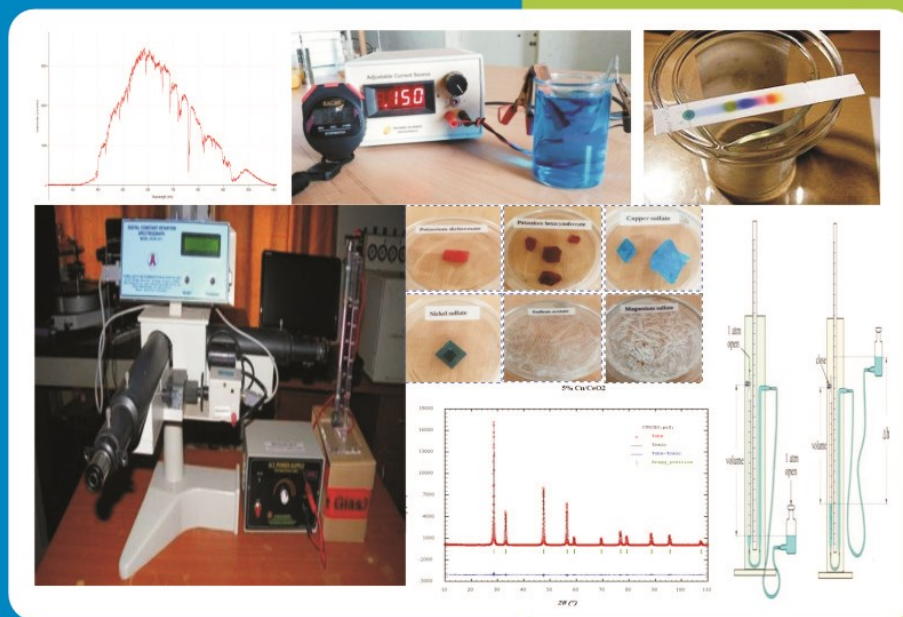


XI-XII

Chemistry Experiments



Centre of Excellence in Science and
Mathematics Education
Indian Institute of Science, Challakere Campus
at Kudapura
Under Pandit Madan Mohan Malviya
National Mission on Teachers and Training
MHRD, Govt. of India



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Preface

National Council of Education Research and Training (NCERT) is the nodal agency of Govt. of India, MHRD which is bringing out text books of 11 and 12th classes in India. The text books contains the basic topics a student must know. But the teacher has enough freedom to go beyond the books to make the students excited. Excitement in science is experienced by doing experiments and observations. By performing experiments, students acquire skill which will be helpful in their career.

Students start doing science experiments in 11th class. It is a fact that if a student did an experiment he is able to grasp the theory behind it more easily than just visualizing the idea. We have designed a large number of experiments required to understand the science subject. In each subject a number of experiments have been developed. Teachers attending the IN-HOUSE training for 10 days do these experiments and learn how to teach science with the help of experiments and demonstrations.

Chemistry is generally perceived as a difficult subject. If a teacher showed how to make chlorine and students smell the gas, they will not forget chlorine smell in entire life time! The experiments the students do presently in 11 and 12 class chemistry are far and few. New subjects are added in the text books but experiments on those topics are not introduced in the laboratory. Therefore, there is an urgent need to add new experiments to train the students to acquire skill.

Over 80 new experiments related to 11 and 12 class chemistry subject in the NCERT books have been designed, developed in TDC, IISc-Challakere campus. Experiments cover the entire chemistry taught in 11 and 12 classes. PU college teachers both from Karnataka State and Jawahar Navodaya Vidyalaya from all over India attending 10 days in-house training are performing these experiments. The experiments are directly helpful to learn theory subjects. As it stands, teachers have not done most of these experiments in their career. Now that the teachers are taught, they should be able to demonstrate the experiments to their students by creating these experimental facilities in their schools. Many of these experiments can be added to a small list of the experiments the students presently are doing in 11 and 12 classes. It is hoped that the teachers will take interest to show the experiments they have done here in TDC and improve the standard of PU chemistry education and NCERT will take note of it.

We are grateful to MHRD, Govt. of India for instituting a Center of Excellence in Science and Mathematics Education under Pandit Madan Mohan Malaviya National Mission for Teachers and Training at IISc Challakere campus.

Vasudev Bhat, B. Shrikanth and M. S. Hegde

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