# **Departmental Seminar**

#### Speaker: Prof. Tulsi Mukherjee

# Affiliation:

Ex-Director, Chemistry Group, Bhabha Atomic Research Centre, Mumbai

## Title of the Talk:

Energy Security in India : Role of Materials in Self-Sufficiency of Nuclear Energy and its Societal Applications

## Abstract:

India's energy security depends on a judicious planning involving all forms of energy production. Among these, nuclear energy is undoubtedly the cleanest and most compact energy source. As a result of indigenous developments as well as resources availability from the member countries of the Nuclear Suppliers Group due to the signing of the 123 Agreement between India and USA, Indian nuclear status has improved by leaps and bounds. India is on the verge of attaining success in the second stage of the three-stage nuclear programme after many years of fruitful research. A detailed analysis of the development of nuclear energy in India will be presented.

Development of very sophisticated materials and techniques are at the root of the great advancement of nuclear energy in India. A brief outlook will be presented.

In view of the Fukushima accident in Japan in 2011 and the organized outcry against few upcoming nuclear establishments, it is imperative to understand the implication of such events on the future of India's power scenario and to allay public fear about nuclear radiation.

The Indian public is blissfully unaware of a large number of beneficial effects and utilities of radiation and the nuclear energy, besides the generation of electric power and testing of nuclear detonation for peaceful purposes. Nuclear capability is also a deterrent against external threats. These aspects will form the concluding part of the talk.

**Date & Time:** 22.01.2014 at 4.00 P.M.

Venue: Fermion

Organised by: CBMS Dept.

All are cordially invited to attend the Talk.