



GREEN CHEMISTRY AS RESPONSIBLE STEWARDSHIP

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Chemistry as a fundamental science and as a scientific basis for a variety of technologies in different branches of industry is deeply involved in the progress of the modern society. Nature has always been a source of inspirations for chemists and material scientists. Chemists have a relationship with nature at a molecular level, learn from it, and attempt to copy its perfection. The Green Chemistry concept is one of the brightest practical manifestations of social responsibility of chemists. Chemical education can be effectively used for the dissemination of this concept. Some examples of formal educational programs will be given, based on the 10 years' experience of the Institute of Chemistry and Problems of Sustainable Development at D.Mendeleev University of Chemical Technology of Russia.

As the official environmental monitoring data show, the economic and industrial recovery of Russia and former Soviet republics is resulting now in the deterioration of the quality of the environment, due to old technologies used and little attention paid by the industry and policy decision makers to the rational use of energy and natural resources. The other emerging problem is the danger of chemical and biochemical terrorism. Recently in Russia and other countries of CIS, the cases of explosions (in which students of chemistry departments had been involved) have been investigated. Urgent measures are to be taken by the chemistry community (scientists, educators and the practitioners). Professional Codes of Conduct are being developed in order to withstand this problem. The examples of codes and some results the sociological surveys will be discussed.

The questions related to the public reaction to the problems of destruction of chemical weapons and risk assessments in chemical industry will be dealt with.

The outcomes of IUPAC-sponsored projects aimed at the enhancement of education in chemistry and advancement of public understanding of chemistry and the scientific method will be reviewed.