Epreuve orale spécifique Baccalauréat général Académie d'Amiens durée : 20min SECTION EUROPEENNE Sciences Physiques Langue anglaise

GREEN CHEMISTRY AND SUSTAINABLE DEVELOPMENT

As for 'sustainable development', there have been many definitions of 'green chemistry' which relate to the synthesis of environmentally benign molecules and materials, new chemical (energy efficient) processes and new quality control technologies which reduce effluent and waste. These definitions imply that 'green chemistry' and 'sustainable chemistry' are closely inter-related(1) since the vision of green chemistry is aligned with environmental sustainability. With its direct linkages to other major science disciplines, and its indirect linkages to economics and ethics, together with its principal aim to provide benefits to society, green chemistry is rapidly changing the negative public image of chemistry which has prevailed for decades.

The guiding principles of green chemistry offer significant challenges for chemical education, since the mindset of students and researchers has to be changed to think and learn in terms of environmental sustainability rather than in terms of 'pure chemical sustainability'. Traditionally these new terms and concepts have not been included in chemistry education. If the 'benign by design' philosophy is introduced progressively into chemical education pedagogy at all levels, this will greatly assist in the production of trained personnel for sustaining the chemical enterprise.

(1): inter-dépendant



From : http://www.theaic.org/pub_thechemist_journals/Vol-86-No-1/Vol-86-No1-Article-5.html

Using your knowledge and the documents, explain the role of green chemistry.