



Greening of Chemistry Curriculum at K12 Level: Need of the Day

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Abstract:

Chemistry is very much required and responsible for industrial development and technological advancement. Green chemistry¹ is nothing but an extension of chemistry principles to serve the sustainability of the environment. It has the potential to address the challenges threatening the sustainable civilization. It is a set of 12 principles given by Paul Anastas and John Warner to serve the society with a modern version of chemistry which is less toxic less hazardous, highly efficient and non-polluting.² Unfortunately, the education system especially in developing countries is not very enthusiastic and welcoming towards acceptance of green chemistry in their curriculum. In many countries, students, as well as teachers, are not even aware of the philosophy and the applications of green chemistry in daily life.

They don't know its benefits in industrial development. Therefore, it is quite an unfortunate situation and a challenging one at the same time. Green chemistry does not feature yet in any K12 curriculum in India and students start learning about it the first time at the college level only. The only direct reference to environmental chemistry topics the closest to green chemistry is found in the syllabi of K12 schools but still there is a lot of confusion between these 2 terms. Therefore it is the need of the day that K12 chemistry curriculum allows sufficient space for fundamental principles of green chemistry and its applications which not only will be helpful to the teenage students in their day-to-day learning but also will be an added advantage to them in becoming a responsible citizen as well as a seasoned professional. In the present talk, I would try to discuss the need and the necessity of greening of chemistry curriculum at K12 level. I'm sure it would be beneficial for not only students but also the teachers as well.

Biography:

Fellow of Royal Society of Chemistry, UK. Professor & Associate Dean, Research at JECRC University, Jaipur, India. Also, Series Editor for Springer's Book Series- "Green Chemistry for Sustainability", and authored several books and research papers of international repute so far.