

## **Green Chemistry: The Missing Elements**

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Imagine a world where all segments of society demanded environmentally benign climate neutral products! Imagine if all consumers, all retailers and all manufacturers insisted on buying and selling only non-toxic truly sustainable materials! The unfortunate reality is that, even if this situation were to occur, our knowledge of materials science and chemistry would allow us to provide only a small fraction of the necessary products and materials that our economy is based upon. Unfortunately, the way we learn and teach chemistry and materials science in academia is for the most part void of any information regarding mechanisms of toxicity and environmental harm. Green Chemistry is a science that seeks to reduce or eliminate the use of hazardous materials at the design stage of a materials process. It has been demonstrated that materials and products CAN be designed with negligible impact on human health and the environment while still being economically competitive and successful in the marketplace. This presentation will describe the history and background of Green Chemistry and discuss the opportunities for the next generation of materials designers to create a safer and more sustainable future.