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Green chemistry in a changing landscape - Isn't green chemistry simply good chemistry?

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Green chemistry means different things to different people, and to some it means nothing at all. Can it simply be looked at as chemistry with a social conscience? This presentation looks at the language of Green Chemistry, its principles and how green chemistry fits into the wider scientific and industrial landscape. Along the way the author will investigate some examples of green chemistry practice and try to tease out what makes green chemistry green rather than just good chemistry. Aspects of the author's experiences in exploring bioinspired processes will be discussed as nature employs specific instructed processes to produce thermodynamically stable structures at the cellular and sub-cellular levels from smaller components without the need for over-complicated chemistry. These components act in either a structural or functional manner. The latter part of this lecture focuses on using these concepts and a series of simple molecular building blocks, to form functioning systems using a non-covalent approach emphasizing thermodynamic processes.

Biography

Steven J Langford received his PhD from the University of Sydney in 1994. After Postdoctoral work in the UK under the auspices of a Ramsay Memorial Fellowship investigating the formation of topologically interesting molecular assemblies for molecular device development, and at the University of UNSW investigating electron transfer processes in giant multichromophoric systems, he joined the School of Chemistry at Monash University in 1998. He was appointed Professor of Organic Chemistry in 2006 and Head of School of Chemistry (2010-present) at Monash. He is currently Director, Green Chemical Futures. His research interests focus on concept transfers from nature, particularly in the areas of solar energy conversion, fluorescence and molecular device functionality. He has published over 150 research articles and is the recipient of many national and international awards.

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