Distinguished iNANO lecture of the week
- open to all

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University of Edinburgh
Edinburgh, Scotland

Title: Making the Tiniest Machines

Time: Friday 3 February 2012, at 11.35 a.m.

Location: AUD 1, Dept. of Chemistry,

Abstract: Over the past few years some of the first examples of synthetic molecular level machines and motors — all be they primitive by biological standards — have been developed. These molecules respond to light, chemical and electrical stimuli, inducing motion of interlocked components held together by hydrogen bonding or other weak molecular interactions. Perhaps the best way to appreciate the significance of controlled molecular-level motion is to recognise that nanomotors and molecular-level machines lie at the heart of every significant biological process. When chemists learn how to build artificial structures that can control and exploit molecular level motion, and interface their effects directly with other molecular-level structures and the outside world, it will potentially impact on every aspect of functional molecule and materials design. An improved understanding of physics and biology will surely follow.