

DSM Science & Technology Awards (SOUTH) 2008

Name	Jonathon Beves
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Jonathon Beves is researching within the field of nanoscale science, and is applying supramolecular chemistry to nanotechnology. He uses the so-called 'bottom up approach' which starts with well-defined molecular species (building blocks) and uses their inherent coding to assemble larger molecular architectures. The strategy is based upon the use of well-understood chemical interactions (metal–organic bond formation as well as weaker interactions between atoms in different molecules) in order to control the assembly of molecular species to nanometric or micrometric scales. The controlled construction of nano- and micro-porous materials is an important stage in the development of storage media for small molecules or as microreactors. Jonathon is especially interested in making materials with useful photonic and electronic properties. For example, excitation of a suitable molecular system is followed by emission of light, the (wavelength) colour of which can be tuned by making subtle changes to the molecular building blocks.