

Fraser Stoddart / Biosketch 273 words

Fraser Stoddart, presently a Board of Trustees Professor of Chemistry at Northwestern University, was previously the Saul Winstein Professor of Chemistry at UCLA before holding the Fred Kavli Chair of NanoSystems Sciences while Director of the California NanoSystems Institute. Stoddart has pioneered the development of molecular recognition and self-assembly processes in template-directed protocols for the synthesis of two-state mechanically interlocked molecules including bistable catenanes and rotaxanes. His areas of expertise embrace artificial molecular switches and artificial molecular machines that operate away-from-equilibrium.

Sir Fraser obtained all his degrees (BSc, PhD, DSc) from Edinburgh University and has spent time at Queen's University in Canada, Imperial Chemical Industries' Corporate Laboratory, as well as at the Universities of Sheffield and Birmingham in the UK before moving to the United States in 1997. He was made a Knight Bachelor by Her Majesty Queen Elizabeth II in her 2007 New Year's Honors List for his services to chemistry and molecular nanotechnology. He is a Fellow of the Royal Society of London as well as an Honorary Fellow of the Royal Society of Edinburgh and the Royal Society of Chemistry. His many awards include the King Faisal International Prize in Science, the Albert Einstein World Prize in Nanotechnology, the Feynman Prize in Nanotechnology, and the Royal Medal of the Royal Society of Edinburgh. He is an elected Member of the American Academy of Arts and Sciences, the National Academy of Sciences, and a Foreign Member of the Chinese Academy of Sciences and the Australian Academy of Science. In 2016, he shared the Nobel Prize in Chemistry for the design and synthesis of molecular machines with Ben Feringa and Jean-Pierre Sauvage.