

RADICAL CHEMISTRY IN THE DESIGN AND SYNTHESIS OF ARTIFICIAL MOLECULAR MACHINES

Sir James Fraser Stoddart

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Sir James Fraser Stoddart works in the area of supramolecular chemistry and nanotechnology. Stoddart has developed highly efficient syntheses of mechanically-interlocked molecular architectures such as molecular Borromean rings, catenanes and rotaxanes utilizing molecular recognition and molecular self-assembly processes. He has demonstrated that these topologies can be employed as molecular switches. His group has even applied these structures in the fabrication of nanoelectronic devices and nanoelectromechanical systems (NEMS).



Stoddart shared the Nobel Prize in Chemistry together with Ben Feringa and Jean-Pierre Sauvage in 2016 for the design and synthesis of molecular machines. ^[1]

[1] Wikipedia, https://en.wikipedia.org/wiki/Fraser_Stoddart (as of June 17, 2019)