

Towards dynamic artificial protein containers

Jonathan G. Heddle

1. Abstract

In recent years, a number of artificial protein cages have been designed and demonstrated. Typically, these employ native-like protein-protein interactions to hold constituent proteins in place. However, it is challenging to endow such interactions with dynamics which, in the context of a protein cage, means the ability to disassemble in conditions of choice. An alternative approach is to supplement or replace protein-protein interactions with simple bonds whose properties can be more easily controlled. Here we introduce the TRAP-cage system and outline the progress made towards its programmed disassembly under defined conditions.