

Cooperative loading and release behavior of a metal-organic receptor



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There are strong parallels between artificial receptors and biomacromolecules proteins, and considerable effort has been made to develop synthetic analogues of important biochemical processes. Inspired by the dioxygen-transport protein haemoglobin, we currently found a metal-organic receptor, constructed through subcomponent self-assembly, which has been designed to reversibly and cooperatively bind and release pairs of oxocarbon anions. Its cooperative behavior allows the receptor to carry a greater payload than would be possible in a non-cooperative analogue.

