Oligoadducts of C60: Synthesis, Physical- and Supramolecular Properties

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Fullerenes exhibit unprecedented chemical, physical and materials properties. The use of these carbon allotropes as new building blocks for nano-science is challenging. For this purpose chemical functionalization allowing for a further design of their property profile is an important requirement. The most powerful functionalization methods are exohedral additions to the conjugated p-system. A variety of strategies for the highly regioselective synthesis of multiple adducts of C60 is reported. Properties such as photo-induced charge separation, liposome formation and biological activity can be achieved.