

Fuelling Fullerene-based Reaction Centers with Novel Multichromophoric Antennas

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Based on the unique electronic and structural properties, carbon nanostructures are promising candidates for the constructions of advanced multidimensional organic architectures. Therefore a detailed understanding of the chemical and physical properties of these all-carbon structures is crucial for the further and targeted development of advanced materials. The main purpose of our work is to design and investigate new classes of carbon nanostructures with defined structural, physical, and chemical properties which are suitable as functional materials, *e.g.* in the field of organic conductors, photonic applications, and biological applications.

Herein we report the recent progresses achieved in our laboratory on the synthesis, characterization, and physical studies of new classes of [60]fullerene-based reaction centers equipped with new chromophoric antennas.