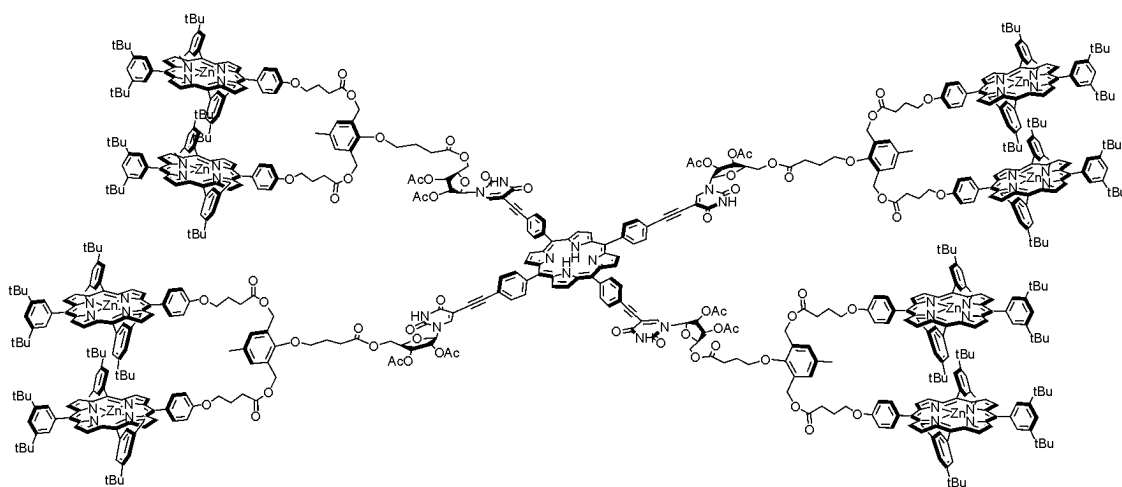


## 2. **Arborescent Multi-Porphyrins and Supramolecular Devices :**

Mimicking of the antenna effect of the photosynthetic system.

The synthesis of high molecular weight arborescent multi-porphyrins is also a major concern for us. In particular, we synthesized a penta- and a nona-porphyrins constituted of a free-base porphyrin surrounded by respectively four and eight Zn(II) porphyrins. Increasing the number of chromophores around one single energy acceptor enhances the probability to capture a photon and thus to transfer energy towards the central chromophore, thus reproducing the antenna effect occurring in the photosynthesis process. Nucleosidic linkers have been chosen for their ability to establish hydrogen bonds with complementary unities. We indeed intend to take advantage of these hydrogen bonding pattern to increase the number of peripheral Zn(II) porphyrins by self-assembling processes.



**Figure.** Arborescent nona-porphyrin with nucleosidic spacers.