Title: **Synthesis of 5,10,15-tri(*tert*-butyl)porphyrin**

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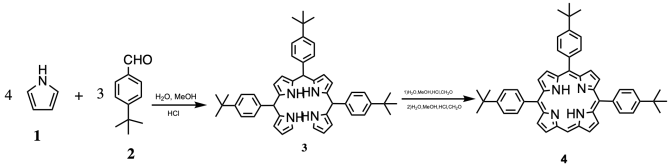
As a word, porphyrin is of Greek origin: *porphura* that means violet. This meaning might have a direct reflection to that porphyrins are colored molecules. Porphyrins can be synthesized but it is important to mention that they already exist in nature. They are one of the essential chemical units in many transcendental biological processes for life, such as transporting and storing oxygen (heme group) or photosynthesis (chlorophyll).

Porphyrin derivatives present a series of very specific structural characteristics, such as their high aromaticity, symmetry and planarity. These characteristics make reference porphyrins in many areas of chemistry, such as diverse applications like materials science, supramolecular chemistry, optics, catalysis. For that reason, the functionality of porphyrin ring with different substituents has received considerable attention from the scientific community, as these types of modifications alter the steric and electronic nature of porphyrins, they can lead to new molecules with interesting properties.

In this TFG we have attempted the synthesis of a *meso*-substituted porphyrin, 5,10,15-tri(*tert*-butyl)porphyrin from Bilane **3**.



Reaction of the shytesis of our porphyrine

The stability of the Bilane **3** is strongly dependent of the nature of the substituent in the aromatic rings. There are studies that have carried out the reaction with other R groups and have acceptable yields around 60%.

The reaction was carried out by the Lindsey method, where a mixture of porphyrins was obtained and we tried to separate. The methods for condensation will be explained briefly.

Keywords: Porphyrin, Bilane, pyrrole, substituents, Lindsey method, condensation.