Pharmaceuticals photodegradation by Zirconium-Porphyrin MOF

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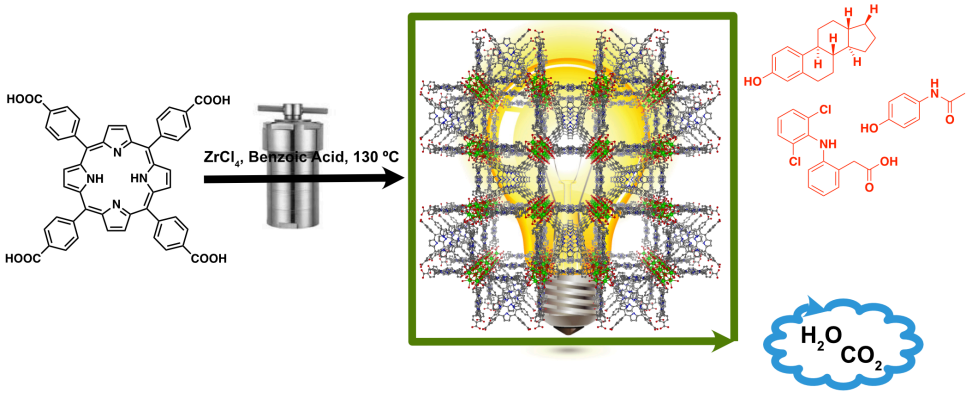
There are a wide range of pharmaceuticals used to treat many medical conditions. Though being a positive aspect of modern society when it comes to healthcare, it poses nevertheless a serious environmental problem as an increasing volume of pharmaceutical compounds are being detected as contaminants in wastewaters and, concomitantly, in water reserves.[1,2] It is imperative to develop and implement effective and efficient ways to treat water by removing or, at least, transforming this type of pollutants into more environmental benign species. Advanced Oxidation Processes (AOPs) have shown to be an interesting solution to rapidly oxidize these organic pollutants to less hazardous products[3], and porphyrin-based Metal-Organic Frameworks have been found to be effective as catalysts to this end.[4,5] In this context we prepared PCN-224 (see Figure) and tested its photocatalytic activity in the degradation of different pharmaceutical compounds.[6] Our main results will be presented.



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