

BSc/Msc: Design, synthesis and applications of fluorescent probes based on perylenes

Perylene dyes are the most stable organic chromophores known to man. These compounds can be functionalised at the so-called peri- and the bay positions. We have developed the synthetic methodology to achieve independent substitution at all positions in an easy, efficient and straightforward manner. Here we want to exploit this knowledge by attaching up to five independent receptor groups at the perylene scaffold. The resulting molecule will be able to detect five different analytes simultaneously and can thus be regarded as a “lab on a molecule”.

