

Title: Photocatalytic valorization of bio-based fatty acids

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The project targets the photocatalyzed conversion under visible light of biomass into valuable products, particularly for the development of new materials. In an international, national and regional context oriented towards the development of green chemistry, the substitution of petroleum-sourced products by natural oil-sourced products is strategically of the greatest interest. The latest advances in the field of photocatalysis on the functionalization of deactivated carbon-carbon unsaturations or on oxidative decarboxylations allow us to envisage their application in the valorization of fatty acids. Although many efforts have been made, the main photocatalysts used so far are still organometallic complexes of scarce, expensive transition metals such as ruthenium or iridium. **The proposed project will also seek to develop organic or organometallic photocatalysts based on the use of abundant and non-toxic transition metals.**

