



## VIRTUAL SEMINAR

Thursday, 25.11.2021 at 13:00

### Photocatalysis - Previous Experiences and Further Challenges

**Belisa Alcantara Marinho, Jožef Stefan Institute**

Photocatalysis is a promising technique that can be used for the degradation of organic compounds metal oxidation/reduction, water splitting, inactivation of microorganisms, CO<sub>2</sub> reduction, etc. However, commercial photocatalysts, such as TiO<sub>2</sub>, ZnO, CeO<sub>2</sub>, ZrO<sub>2</sub>, WO<sub>3</sub>, V<sub>2</sub>O<sub>5</sub>, CdS and ZnS, possess a low quantum efficiency and low activity under visible radiation (e.g., TiO<sub>2</sub> can only be activated when irradiated with wavelengths of less than 385 nm). In addition, they are mainly used in slurry conditions, requiring a post-filtration step to take out the photocatalysts after the reaction. The fundamentals of photocatalysis, its drawbacks and some strategies to overcome them will be the topics of this seminar.

Kindly invited.