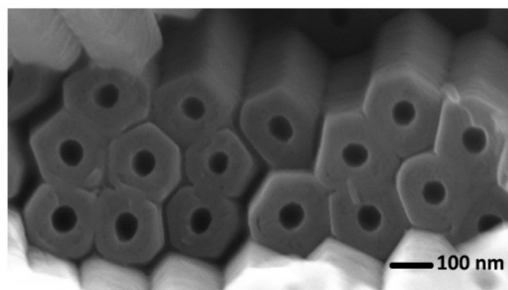




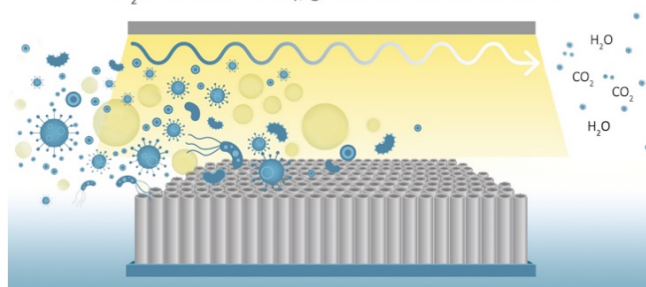
Open PhD position:

»Development and testing of photo-electro-catalytic materials for water and air purification«

The main objective of the research work within the proposed PhD position is to study degradation of selected organic pollutants in either waste waters and/or air by the use of nanostructured oxide catalysts obtained by various processing methods, including anodic oxidation. The work will encompass the study of basic processes during the process of photocatalysis, photoelectrocatalysis and electrocatalysis, modelling and calculation of kinetics of degradation of selected pollutants and design of different types of reactors based on microfluidics. We offer excellent working conditions for laboratory work as well as state-of-the-art analytical facilities for complete structural and chemical characterization of all used catalysts as well as for monitoring and studying all relevant processes during catalysis. Interdisciplinary studies and collaborations on the national and international level will be strongly supported as well as participation at national and international scientific events.



TiO<sub>2</sub> nanotubular array, grown with anodic oxidation.



Schematic presentation of organic pollutants degradation.

The work will take place at the [Department for Nanostructured Materials](http://www.nano.ijs.si/), at the Jožef Stefan Institute. A four-year PhD position is a fully-funded by the Slovenian Research Agency, starting in October 2021.

Minimum requirements for application:

- MSc in either chemistry, chemical engineering, materials science, or similar
- Experience in catalyst synthesis, characterization and testing
- Grade point average above 8 (exams and lab classes excluding the undergraduate thesis).
- Age up to 28 years and fluent in spoken and written English.

Criteria for assessment of candidates:

- Grade point average in all courses,
- Awards or prizes received,
- Participation in research work,
- Scientific articles published,
- Assessment of an interview with the candidate.

Web page: <https://nano.ijs.si/>

Interested candidates must submit the required documentation as described in the links below by 2<sup>nd</sup> of July 2021:

- [Call for Tenders applicable to young researcher candidates with selected mentors in 2021](#) (ENG)
- [Javni razpis za kandidate za mlade raziskovalce pri izbranih mentorjih v letu 2021](#) (SLO)

Ljubljana, 10<sup>th</sup> of June 2021