40th NARECOM – NAnoEnviCz REsearch COmmunity Meeting

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20

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0

1

2

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200

400

600

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100 K

200 K

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*T*

 = 10 K

100 K

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**± EP //**

$$\left[01\overbar{1}0\right]$$

13th November 2024 at 2:30 p.m.

**Photocatalysis – Principle and Application in Water and Air Purification**

**Dr. Eliška Mikysková**

*J. Heyrovský Institute of Physical Chemistry of the CAS, Center for Innovations in the Field of Nanomaterials and Nanotechnologies*

**Abstract:**

Heterogeneous photocatalysis is one of the advanced oxidation processes proposed for water and air purification. Through its action, degradation of organic and inorganic chemicals, along with bacteria, viruses, and fine dust particles, occurs on the surface of a photocatalyst exposed to ultraviolet or visible radiation. The lecture will briefly explain the principle of photocatalytic processes. In the second part of the lecture, we will focus on the practical application of photocatalysis in water and air purification, including a demonstration of ongoing research in this field conducted in Center for Innovations in the Field of Nanomaterials and Nanotechnologies.

**Graphical Abstract:**



**1 µm**