

IN²UB INTERNATIONAL RESEARCH SEMINARS

TiO₂ based nanocomposites as photoelectrodes for degradation of organic pollutants

Photoelectrocatalysis (PEC) is an effective and environmentally friendly technology for the degradation of persistent and harmful environmental pollutants such as pharmaceuticals. One of the challenges in research into PEC degradation is finding the appropriate photoanode material, which has a significant impact on the efficiency of the process. Among all others, photoelectrodes based on an ordered TiO₂ nanotube arrays are a promising material due to well-developed surface area and efficient charge separation. In the presented study, photoelectrodes based on TiO₂ nanotubes which were sensitized with quantum dots of narrow band semiconductors were applied for photoelectrocatalytic removal of selected anticancer drugs. The effect of structure and morphology of photoelectrodes on degradation efficiency were investigated and the mechanism of photoelectrocatalytic degradation of anticancer drugs were proposed.



The IN²UB invites you to the seminar by

Dr. Aleksandra Pieczyńska

Department of Environmental
Technology,
Faculty of Chemistry, University of
Gdansk, Poland

SAVE THE DATE

July 15th, 2021 at 12.00h.

[Webinar](#)



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