



Ηράκλειο, 2 Νοεμβρίου 2021

ΑΝΑΚΟΙΝΩΣΗ

Η ΠΑΡΟΥΣΙΑΣΗ ΤΗΣ ΔΙΠΛΩΜΑΤΙΚΗΣ ΕΡΓΑΣΙΑΣ

Του φοιτητή **Ιορδάνη Καλόφωνου**, θα γίνει τη

Πέμπτη 4/11/2021 και ώρα **12:00**

στην αίθουσα A210 στο Κτήριο Μαθηματικού

Θέμα Διπλωματικής:

“Designing and testing a 3D printed photoreactor with ultrasound assisted deposition of TiO₂ for the degradation of micro-pollutants”

Για την παρακολούθηση της παρουσίασης δια ζώσης, το κοινό θα πρέπει να έχει τα απαραίτητα δικαιολογητικά (πιστοποιητικό εμβολιασμού, νόσησης ή rapid test).

Abstract:

3D Printed microfluidic chips have attracted a lot of attention in recent years due to their versatility and low cost of production. In this work, the wall coated reactor model was used as the chip was designed to perform photocatalysis on the inside of its channels. The catalyst TiO₂ that was used for this work was synthesized by using an ultrasound assisted method and characterized by X-Ray Diffraction and Scanning Electron Microscope. The chip was prepared by a low-end 3D Printer by using Polylactic Acid which was selected for its overall ease of printing, and consists of one solid block with a continuous channel of 1mm diameter. The catalyst was deposited inside the 3D Printed channels via a mechanical means under ultrasound. Finally the chips were tested as photocatalytic reactors by loading them with a model pollutant, that being methylene blue which was photocatalytically degraded under UV irradiation.