ΠΑΝΕΠΙΣΤΗΜΙΟ UNIVERSITY OF CRETE



ΚΡΗΤΗΣ

ΤΜΗΜΑ ΕΠΙΣΤΗΜΗΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑΣ ΥΛΙΚΩΝ

DEPARTMENT OF MATERIALS SCIENCE AND TECHNOLOGY

Ηράκλειο 18/10/2021

Η ΠΑΡΟΥΣΙΑΣΗ ΛΙΠΛΩΜΑΤΙΚΗΣ ΕΡΓΑΣΙΑΣ

Του φοιτητή Κοσμά Γιάνναρη, θα γίνει τη

<u>Παρασκευή 22/10/2021</u> και ώρα 10:00

στην Β2 του Κτιρίου Χημείας

Θέμα Διπλωματικής:

« Investigation of graphitic - Carbon Nitride (g-C₃N₄) dispersibility in Common Solvents»

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

Abstract:

This thesis intends to investigate the dispersion behavior of graphitic – Carbon Nitride $(g-C_3N_4)$ in different solvents. In this context, twenty (20) different solvents were utilized covering a broad range of physical properties (polarity, boiling point etc.). In the beginning, $g-C_3N_4$ was characterized by Attenuated Total Reflectance (ATR FT-IR), Ultraviolet-visible (UV-vis) and Raman spectroscopy, as well as X-ray diffraction (XRD). Following its characterization in powder form, dispersions were prepared through the tip ultrasonication method, followed by centrifugation. In that way, the stable supernatant was separated from the sediment and the final concentration in each solvent was determined through the Beer-Lambert law. It should be highlighted that this is the first study in the literature that the investigated $g-C_3N_4$ dispersions were prepared by tipultrasonication. Finally, the Hansen Solubility Parameters (HSP) of the material were calculated.

ΑΠΟ ΤΗ ΓΡΑΜΜΑΤΕΙΑ

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