Dimitrios Kosmidis

Nationality: Greek

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ABOUT ME

Synthetic chemistry, nano-material processing, graphene chemistry, surfactants, thin films, engineering, ocular diseases, photo-catalysis.

WORK EXPERIENCE

MSc in the field of organic electronics and applications

HMU [11/2017 – 01/2020]

City: Heraklion

Country: Greece

1. Synthesis of graphene oxide.
2. Synthesis of reduced graphene oxide via common and “green” methods.
3. Synthesis and characterization of graphene-related materials for photovoltaic applications.
4. Synthesis and characterization of three different perylene-dye derivatives for photovoltaic applications.
5. Synthesis of surfactants to optimize the dispersibility of graphene in aqueous solutions.
6. Doping of graphene oxide with alkalimetals.
7. Optimization of ultra-sonication time during the preparation of graphene oxide dispersions.
8. Application of ultra-sonication for the preparation of graphene-oxide dispersions in various organic solvents.
9. Synthesis and characterization of nitrogen-doped reduced graphene oxide.
10. Preparation of a custom spraying base, designed for the successful homogenous deposition of graphene inks onto solid substrates.
11. Incorporation of the spray-gun deposition method into the preparation of fewlayered graphene membranes.
12. Incorporation of the spray-gun deposition method into the preparation of fewlayered graphene-oxide membranes.
13. Incorporation of the spray-gun deposition method into the preparation of fewlayered reduced-graphene-oxide membranes.
14. Incorporation of the spray-gun deposition method into the preparation of fewlayered reduced-graphene-oxidemembranes.
15. Preparation of graphene oxide thin films via vacuum filtration.
16. Graphene, graphene oxide, and reduced graphene oxide as delivery matrices for the treatment of glaucoma.
17. Baerveldt shunt glaucoma treatment method.
18. Participation in the synthesis of a Benzothiadiazole Based material with the aim of increasing the efficiency of ternary photovoltaics.

Undergraduate researcher
ITE-FORTH [08/2016 – 04/2017]

City: Heraklion

Country: Greece

1. Synthesis and characterization of the photo-catalytic polymer.
2. Preparation of the photo-catalytic filament, used for the 3D-printing, via the use of a custom designed extruder.
3. Characterization of the photo-catalytic three-dimensional structures via UVVisible and FT-IR spectroscopies.
4. Writing and presentation of the undergraduate thesis.

EDUCATION AND TRAINING

MSc in the field of organic electronics and applications
Hellenic Mediterranean University [11/2017 – 01/2020]

Address: Estauromenos, Heraklion,

Bachelor of science in Chemistry
University of Crete

Address: Boutes, Heraklion,

LANGUAGE SKILLS

Mother tongue(s):

Greek

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** B2

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

German

LISTENING A2 **READING** B1 **WRITING** A2

SPOKEN PRODUCTION B1 **SPOKEN INTERACTION** B1

DIGITAL SKILLS

Microsoft Office / Zoom / Organic Chemistry / ChemDraw Ultra 12.0 / NMR / MNova MestreLab / FT-IR / Raman Spectroscopy / UV-vis / Photoluminescence / Cyclic Voltammetry (CV) / OriginPro 8.5