

Filippos Harlaftis

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EDUCATION/WORK EXPERIENCE

03/2023 – present **Research Assistant, NCSR “Demokritos” (INN)**

2021-2022 **MPhil in Physics – University of Cambridge, UK**

- **Diploma Thesis:** “Trapping plasmonic nanoparticles with radio-frequency electric fields”
- **Article :** “Trapping plasmonic nanoparticles with MHz electric fields” (Applied Physics Letters, 17 May 2022)

2016-2020 **BSc in Physics - National and Kapodistrian University of Athens**

Grade: 8.55/10

- **Diploma Thesis:** “An analytical study of the dispersion properties and optical forces in plasmonic and metamaterial waveguides”.

RELATED RESEARCH/LABORATORY EXPERIENCE

Research: Plasmonics, colloidal gold, gold nanostructures, dielectrophoresis, microfluidics, AC electric fields and colloidal gold interaction in microgap configurations, perovskite solar cells

Lab experience:

- Basic chemistry and lab skills (solvent handling, chemical waste disposal, centrifuging, sonication, spincoating)
- Photolithography
- Microfluidic systems fabrication
- Plasma treatment
- Dark field spectroscopy
- Scanning Electron Microscopy (SEM)
- Development of laboratory rig: Selection, organization, connection, communication and coordination (programmed with python) of laboratory equipment modules for a functional experimental system.
- Electrical characterization of solar cells (J-V, Impedance spectroscopy, transient photo-current/voltage)
- Stability of solar cells (thermal, illumination, humidity stressing)
- Glovebox
- Spectrofluorometer, Raman spectrometer, UV-vis, Paios & Litos characterization system, thermal evaporator

Lab Training:

- Laser Safety
- Oracle iProcurement
- Python programming

IT AND LANGUAGE SKILLS

Languages: Greek (Native), English (IELTS C2 level)

Programming skills: Python, Matlab, HTML, JavaScript

Other programmes: CAD, Microsoft Office.

Diplomas:

- **Certified Project Management Associate IPMA® Level D** (ID: D-1189)

-**IELTS (Academic), C2** (score: 8.5), ID 20GR002511CHAF005A

- (E-Learning University of Athens, Greece)

- **Advanced project management** (10/2022 – 03/2023)
- **HTML5 KAI JAVASCRIPT** (12/2022-01/2023)