KONSTANTINOS FIRGIOLAS
CHEMICAL ENGINEER

PERSONAL DETAILS

DATE OF BIRTH
29/05/1997
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kostas7firgiolas@gmail.com
ADDRESS
28th Oktovriou 229, Athens
MILITARY SERVICE
Hellenic Navy 11/2021 - 5/2022

SKILLS

• Inventive and innovative in finding solutions to problems.
• Organisational, hardworking and adaptable in the workplace.
• Flexible, with a team spirit.
• Communicative, positive, ambitious.

LANGUAGES

• English, intermediate (FCE Cambridge B2)
• French, intermediate (DELF B2)
• Portuguese, elementary (University of Porto)
• Greek, native

VOLUNTEERING & HOBBIES

• Athens Science Festival (2016-2019)
-Member of the NTUA's Experiment Design team
-Experiment Execution Responsible
• Participant in Erasmus Youth Exchanges
- Turkey-2017, Romania-2018, Spain-2020
• Traditional greek dance, basketball, photograph

WORK EXPERIENCE

Research Asssistant, 05/2023 - Today

Institute of Nanoscience and Nanotechnology (INN) of the National Center for Scientific Research (NCSR) "Demokritos" Athens, Greece

Studies on nanoporous materials (Carbons, MOFs, etc):

- Characterization with methods such as N_2 and Argon porosimetry and assessment of their properties for gas storage and separation using volumetric and gravimetric high and low pressure adsorption techniques.
- Characterization with spectroscopic (FT-IR, TG-MS, TDS), microscopic (SEM) and scattering (SAXS-WAXS) techniques.

Research Asssistant, 03-07/2021

University of Porto, Department of Chemical Engineering, Porto, Portugal

- Synthesized graphene from agricultural wastes, immobilized on membranes for degradation of anti-depressant molecule using characterization techniques (TG-MS, FT-IR, HPLC).

Undergratuate Trainee, 10/2019

Institute of Nanoscience and Nanotechnology (INN) of the National Center for Scientific Research (NCSR) "Demokritos" Athens, Greece

- Proactively participated in the preparation of porous materials (Carbon Nanotubes, porous carbon and silica particles, organic-inorganic membranes).
- Familiarized with basic characterisation techniques, such as nitrogen porosimetry, membrane permeability-selectivity measurements, SEM, SAXS, etc.

Private Tutor in mathematics and physics, 2017-2021 & 2022-2024

Back office assistant, 10/2015 - 10/2017

Analysis S.A, Athens, Greece

- Secretarial Service
- Composition of reports in MS Office environment
- Classification and archiving of tax/ insurance files of customers

EDUCATION

PhD Candidate in Nanomaterials & Nanotechnology, 5/2025 - Today
National Technical University of Athens, Greece
Thesis Title: Utilization of nanoporous materials in gas storage and separation processes

MEng Chemical Engineering, National Technical University of Athens, Greece, 10/2015 - 10/2021, GPA: 7.9/10
Direction of Materials and Nanotechnology
Thesis Title: Synthesis and Characterization of carbon nanostructures from agricultural waste, GPA: 10/10

CERTIFICATIONS

Certificate in Microscopy Techniques: Theory and Applications, INN, NCSR "Demokritos", Athens (Greece), 2019

Optical - Confocal Microscopy, Electron Microscopy, Atomic Force Microscopy, Scanning Probe Microscopy, Microscope Image Analysis and Nanometrology

Certificate in Informatics and Computer Operation, NTUA, 2021

Computer Programming and Basic Software tools (MS Office), Technical Drawing (AutoCAD/CAM), Process Control, Computational Methods for Engineers, Statistics for Engineers (SPSS)

SOLIDWORKS Associate Certificate, AlfaSolid SA, 2025