



**NATIONAL TECHNICAL UNIVERSITY OF ATHENS**  
**SCHOOL OF CHEMICAL ENGINEERING**  
**Department of Materials Science and Engineering**  
**Professor Doros N. Theodorou**

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9 May, 2024

To Whom It May Concern

Letter of Recommendation for **Mr. Evangelos Patounas**

Dear Madam, dear Sir:

It is a pleasure for me to be writing this letter of recommendation for Mr. Evangelos Patounas, a recent graduate of our 10-semester programme of studies in Chemical Engineering who is interested in pursuing post-graduate studies at your Institution. With this opportunity, please accept my best regards and wishes.

I have known Mr. Patounas since October 2016. He took two classes from me: “Physical Chemistry II” in the fall semester of 2016, and “Structure-Property Relations in Materials” in the spring semester of 2019. In both classes his performance was excellent. He attended lectures with undivided attention, displayed genuine interest in the subject matter and came up with good questions. He worked diligently and systematically and strove to understand concepts in depth. His laboratory reports were among the best I have seen. His final grades in the two subjects he took from me were 8/10 and 9/10, respectively, and placed him within the top 10% of his class.

Mr. Patounas chose to carry out his Diploma Thesis under the direction of Vasileios Koutsos, Professor of Soft Materials and Surfaces at the Institute for Materials and Processes, School of Engineering, University of Edinburgh. He undertook this thesis in the context of the Erasmus programme. In Edinburgh Mr. Patounas conducted cryo-Scanning Electron Microscopy (cryo-SEM) measurements to identify and characterise oxygen and nitrogen nanobubbles in pure water and in water blended with magnetic liquids. As far as I know, it was the first time the cryo-SEM technique was applied to investigate nanobubbles. I served as liaison to NTUA for this diploma thesis, so I had ample opportunity to be exposed to Mr. Patounas’s research work. Despite the

challenges associated with applying a very advanced microscopic technique to phenomena which are still incompletely understood at the fundamental level, Mr. Patounas did a wonderful job visualising nanobubbles and probing how their size and morphology depend on pressure and on the medium in which they form. I was impressed by the diligence and intellectual independence he displayed throughout his thesis work. He played an active role in defining the goals of his diploma thesis and in coordinating efforts between the group in Edinburgh and researchers at NCSR “Demokritos” in Athens, who provided the samples. The CoViD-19 situation prevented him from carrying out all the measurements he and Prof. Koutsos had planned, yet he managed to collect a significant body of good, original experimental work and described it intelligently in a well-organised, informative thesis, which he completed on time. I had the pleasure of chairing his diploma thesis examination on October 8, 2020. His presentation and responses to questions were very successful and elicited highly laudatory comments from the examination committee. In June 2021, Mr. Patounas’s thesis was awarded as the best diploma thesis of our school in the area of Materials Science and Engineering for the year 2020.

As a person, Mr. Patounas is polite, respectful of others, unusually reliable, and very professional. His oral and written communication skills are very highly developed, in both English and Greek. He is well organised and persistent, adapts readily to new environments, and is able to face challenging situations successfully by planning ahead and intensifying his efforts, whenever needed. He expects a lot of himself and constantly strives to perform at his best.

I would be delighted to have a post-graduate student or research collaborator with the intellectual powers, scientific background, work ethic, and character of Mr. Evangelos Patounas. I recommend him to you strongly and without any reservations.

Yours very sincerely,



Doros N. Theodorou  
Professor