

Petition for Inter Partes Review Of
U.S. Patent No. 8,245,764
Decl. of Georgios Karamanis, Ph.D.

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHENZHEN APALTEK CO., LTD.

Petitioner,

v.

ASETEK DANMARK A/S,

Patent Owner

Case No. IPR2022-01317
U.S. Patent No. 8,245,764

DECLARATION OF GEORGIOS KARAMANIS, PH.D.

Dated: August 1, 2022

Respectfully submitted,



Georgios Karamanis, Ph.D.

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I, Georgios Karamanis, Ph.D., declare as follows:

I. INTRODUCTION AND QUALIFICATIONS

1. Counsel for Shenzhen Apaltek CO., LTD. (“Apaltek”) has retained me as an expert to offer my opinion regarding the validity of U.S. Patent No. 8,245,764 (“’764 patent”). I submit this declaration based on my personal knowledge and in support of Apaltek’s *inter partes* review Petition against the ’764 patent.

2. In 2018, I received my Ph.D. from Tufts University in Mechanical Engineering. My Ph.D. thesis was entitled “Nusselt Numbers for Superhydrophobic Microchannels and Shrouded Longitudinal-Fin Heat Sinks.”

3. In October 2018, I began working at Transport Phenomena Technologies, LLC (TPT) in Medford, MA where I am co-founder and managing member.

4. I am currently a Chief Engineer at TPT and responsible for R&D in the area of thermal management of electronics and heat/mass/momentum transfer modeling.

5. I am the PI on a National Science Foundation Phase I and its successor Phase II SBIR award (#2025882) and before that on a Massachusetts Clean Energy Center Catalyst award (Spring 2019) relevant to development of software and hardware for thermal management of electronics.

6. I have 10 journal publications most of which are related to thermal

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management of electronics and liquid cooling. A copy of my Curriculum Vitae (“CV”) is submitted herewith as Appendix A, which describes my education, training, and experience in greater detail.

7. My primary consulting client is Apaltek, acting as an expert on thermal management in general, including liquid cooling to cool CPUs.

8. I have not previously testified as an expert witness in any court or administrative proceeding.

9. I am billing my work in this matter at \$200 per hour, with reimbursement for actual expenses. My payment is not contingent upon my testimony or the outcome of the case. I have no personal interest in the outcome of the case.

II. MATERIALS CONSIDERED

10. The analysis provided in this declaration is based on my education as well as my experience in the field. In addition to relying upon my knowledge based on written materials and other information that was known as of May 6, 2005, I have considered the exhibits to the Petition (Exs. 1001-1015), shown below.

Exhibit	Description
1001	U.S. Patent No. 8,245,764 (“764 patent”)

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