

## **Zápis z obhajoby disertační práce**

konané dne 14.9.2022

na ČVUT Fakultě strojní v Praze od 13:00 hodin

disertant **Ing. Viktor Vajc**

na téma: **„Pool Boiling of Water-Glycerin Mixtures“**

Studijní program Strojní inženýrství, obor Konstrukční a procesní inženýrství

### **Brief assessment of the course of the defence:**

The defence was conducted in English due to its preparation in English and the review and participation of a foreign opponent. The Dean, on the proposal of the chairman of the branch council, approved, according to Study and Examination Rules for Students of CTU, the supervisor's involvement via online participation due to current illness. The thesis deals with the theory of bulk boiling and the determination of the heat transfer coefficient during bulk boiling of model aqueous solutions of glycerin on the surface of various structural materials (copper block, nickel-plated copper block, thin titanium foils). The results enhance the theoretical knowledge of bulk boiling and provide engineering insights. The dissertation results have been published in archival journals (5) and conference proceedings (7)

-2020-Var-01.

Detailed review reports were prepared, and all three referees participated in the defence doc.

(Technical University of Lodz). All three opinions were positive and recommendatory. The candidate answered the questions and commented on the comments of the opponents. The opponents accepted his explanations and appreciated the way of argumentation.

An extensive general discussion followed (15 questions and comments in total). Ing. Vajc demonstrated a deep knowledge of the issues and extraordinary erudition to answer the questions correctly and accurately.

In the final part, the committee highly appreciated both the submitted work and the course of the defence, as well as the fact that its elaboration was initiated by international cooperation with the University of Ljubjana where part of the experiments was carried out. The committee agreed with the proposal of the foreign opponent to propose the thesis for the **Rector's Prize**.

Result of the secret ballot:

Voting result: number of ballots cast: 10, invalid ballots: 0, 10 votes for and 0 against. The Commission unanimously recommends to the Dean of the Faculty of Mechanical Engineering of CTU in Prague to award the degree of "Doctor" to Ing. Vajc in the study program "Design and Process Engineering".

The defence was closed at 15:21.

Prof. Ing. Pavel Ditzl, DrSc.  
Chairman of the Commission

### **Questions and comments:**

See attached written questions and interviewer comments with their signatures.