

## PUBLIC LECTURE EVALUATION

### Masaryk University

<b>Faculty</b>	Faculty of Science
<b>Procedure field</b>	Physics of Plasma
<b>Applicant</b>	doc. Mgr. Pavel Souček, Ph.D.
<b>Lecture date</b>	29.1. 2025
<b>Lecture topic</b>	From machining to sustainable energy supported by thin film research
<b>Persons present</b> (number)	2 onsite + 3 online
<b>Designated evaluators</b> (board members)	prof. RNDr. Mirko Černák, CSc. Faculty of Science, Masaryk University prof. RNDr. Ivan Ohlídal, DrSc. Faculty of Science, Masaryk University prof. Paul Heinz Mayrhofer Faculty of Mechanical and Industrial Engineering, Technische Universität Wien, Austria prof. Ing. Tomáš Polcar, Ph.D. Katedra řídicí techniky, ČVUT v Praze

Pavel Souček gave his lecture titled "From machining to sustainable energy supported by thin film research" on 29.1. 2025 at 10:00 CET in lecture room F1 at the DPPT, Faculty of Science, MUNI. The entire committee was present at the lecture, 2 members onsite and 3 members online. 33 further guests also participated in the audience + 10 online. The committee rated the lecture as of very high quality. Pavel Souček presented the relations between plasma parameters – coating structure and coating properties for several different systems, namely nanocomposites, nanolaminates and high entropy ceramics. Then, he showed how these systems can be used in industry. Lastly, he showed coating systems for the research of next-generation lithium-ion batteries. He clearly showed what his contribution is to the current state of knowledge. The lecture was clear and concise and supported by references to his work. The talk was followed by a discussion, where he answered all the questions of the committee and the guests.

### Conclusion

The lecture delivered by Pavel Souček, titled "From machining to sustainable energy supported by thin film research" and delivered as part of the professor appointment procedure, **demonstrated** sufficient scholarly qualifications and pedagogical capabilities expected of applicants participating in a professor appointment procedure in the field of Physics of Plasma.

The lecture took place in a hybrid form at 10:00 CET, 29.1.2025. The above-mentioned members of the board attended the lecture and provided its evaluation. All designated evaluators are familiar with the text of the evaluation and agree with it.

Date: 29.1. 2025

prof. RNDr. Mirko Černák, CSc

prof. RNDr. Ivan Ohlídál, DrSc.