

PUBLIC LECTURE EVALUATION

Masaryk University

Faculty	FACULTY OF SCIENCE
Procedure field	Plasma Physics
Applicant	Mgr. Jaroslav Hnilica, Ph.D.
Lecture date	9.11.2023
Lecture topic	Temporally and spatially resolved studies of high power impulse magnetron sputtering discharge
Persons present (number)	51
Designated evaluators (board members)	prof. RNDr. Mirko Černák, CSc. (on-site) doc. Mgr. Tomáš Hoder, Ph.D. (on-site) doc. RNDr. Ondřej Kylián, Ph.D. (on-site) Assoc. prof. Daniel Lundin, Ph.D. (online)

The habilitation lecture of Jaroslav Hnilica was a hybrid event with 38 participants present in the lecture room and 13 participants connected via MS Teams. 3 members of the committee and 2 of 3 reviewers attended the lecture. One committee member was connected via MS Teams and actively intervened in the discussion that followed the lecture.

Dr. Jaroslav Hnilica has shown his profound understanding in the scientific field of the lecture topic and that he is able to give such lecture contributing both to understanding of present experts as well as broader public. Dr. Hnilica presented mainly results of his own work contributing to spatiotemporal diagnostics of magnetron discharges. In depth, he answered several questions including the questions of reviewers. The reviewers asked four questions regarding the diagnostics of argon and sputtered species in HiPIMS and multipulse HiPIMS. The committee members' questions were related to the presence of the clusters in HiPIMS discharge and multipulse HiPIMS. Moreover, the advantages and expected results of applying multipulse HiPIMS were discussed. The questions from the audience were related to the presented results, namely the ionized density fraction in non-reactive and reactive atmospheres. The lecture was well prepared and fulfilled the expectations on habilitation lecture both in a formal as well in didactic way.

Conclusion

The lecture delivered by Jaroslav Hnilica, entitled Temporally and spatially resolved studies of high power impulse magnetron sputtering discharge and delivered as part of the habilitation procedure, **demonstrated** sufficient scholarly qualifications and pedagogical capabilities expected of applicants participating in a habilitation procedure in the field of Plasma Physics.

All designated evaluators are familiar with the text of evaluation and agree with it.

Date: 9.11.2023

prof. RNDr. Mirko Černák, CSc.

doc. Mgr. Tomáš Hoder, Ph.D.

doc. RNDr. Ondřej Kylián, Ph.D.