

## Seminar "Study of plasma and materials interactions"

**Dates and Place:** 11 September 2013 at Tallinn University, room A-121. 12.00-16.00

**Hosts:** Institutes of Mathematics & Natural Sciences, Tallinn University

**Sponsors:** Estonian Center of Excellence "Mesosystems – Theory and Applications".

**Main Objective:** Discuss and communication about high temperature plasma and material physics problems, heat and particle propagation problems in mesosystems.

**Target Audience:** Ph.D. students and researchers from different universities in Estonia.

**Seminar Format:** It consists of oral presentations by international and domestic speakers and Informal discussion with the workshop participants. We will use a format that encourages exchange of ideas and interactions between research scientists and students.

### Major Topics for Discussion:

- Problems of investigation of deuterium and hydrogen plasma's interaction with alloys
- Domestic and international collaborations of research projects

### Specific Topics and Speakers currently planned

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|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.30-12.00 | Visit to Tallinn University's plasma laboratory                                                                                                                                                                                       |
| 12.00-12.05 | Opening of the Seminar<br><b>Tõnu Laas</b> , Professor, Institute of Mathematics and Natural Sciences, Tallinn University, Estonia                                                                                                    |
| 12.05-12.50 | Research of plasma and materials interaction in Karlsruhe Institute of Technology<br><b>Boris Bazylev</b> , Associate Professor, Karlsruhe Institute of Technology, Germany                                                           |
| 12.50-13.35 | Investigations of tungsten and hydrogen plasma interactions using plasma assecelator QSPA<br><b>Vadym Mahklaj</b> , PhD, Head of the Laboratory of Plasma Accelerators, Kharkov Institute of Physics and Technology, Kharkov, Ukraine |
| 13.35-14.00 | Coffee break                                                                                                                                                                                                                          |
| 14.00-14.45 | Application of dense plasma-focus device for investigation of high temperature deuterium plasma and tungsten interaction<br><b>Tõnu Laas</b> , Professor, Institute of Mathematics and Natural Sciences, Tallinn University, Estonia  |
| 14.45-15.30 | Determination of inhomogeneity of metal samples by electrical conductivity measurement<br><b>Martin Parker</b> , PhD student, Tallinn University of Technology/AS Metrosert                                                           |
| 15.50-16.00 | Discussion                                                                                                                                                                                                                            |

