VA 3: Desorption

Time: Monday 14:40–15:00 Location: H6

VA 3.1 Mon 14:40 H6

Influence of the pre-treatment on outgassing — •Katharina Battes and Volker Hauer — Karlsruhe Institute of Technology (KIT), 76344 Eggenstein-Leopoldshafen, Germany

As outgassing plays an important role in vacuum technology, it is essential to know the outgassing rates of the different materials being used in vacuum systems.

In literature for plenty of materials outgassing rates can be found. But because of different treatments of the sample before measurement, the outgassing rates often differ over some decades. An important issue here is the baking temperature and time, but also surface treatments like cleaning, electro-polishing and coating as well as the pump down history vary and have a high influence on the results.

To further examine how the diverse treatments are taken into account, outgassing measurements of variably treated stainless steel samples (SS 304) are performed at the new Outgassing Measurement Apparatus (OMA) at KIT. At OMA the difference method is used so that with the subtraction of the chamber outgassing also very small outgassing rates can be measured.

The configuration of the Outgassing Measurement Apparatus as well as the results of the measurements in comparison with those obtained from literature will be presented within this talk.