

## **A database and a multi-stage SimuSage Model for the investigation of deposit formation in coal fired power plants (VerSi)**

K. Hack<sup>1</sup>, T.Jantzen<sup>1</sup>, M. Dohrn<sup>2</sup>, M. Müller<sup>2</sup>

<sup>1</sup>GTT-Technologies, Herzogenrath, Germany

<sup>2</sup>FZJ IEK-2, Jülich, Germany

The VerSi-project is structured into the three major tasks (1) Data and Model for Hard Coal fired Power Plant, (2) Data and Model for Lignite fired Power Plant and (3) Model adaptation for use in plant environment. In the first stage the development of a database for hard coal fired power plants was in the focus of our work. It turned out that the database from the project HotVeGas (see there, Elena Yazhenskikh) formed already an excellent basis for further work. The major missing component in this database was established to be TiO<sub>2</sub>. The first steps of integrating this component will be reported. Furthermore, it was necessary to develop a SimuSage bases process model which goes beyond the model already developed in co-operation with RWE (see earlier User Meetings, e.g. 2014 and 2015). This work was undertaken in close co-operation with the partner FZJ IEK-2 (see contribution by Matthias Dohrn et al.). First steps of the model development will be presented.