**Thermodynamic modelling of the Pt-Al-Cr-Ni alloy system**

Platinum base alloys with room temperature ductility and creep, oxidation and corrosion resistance have been developed for high temperature applications. A thermodynamic model of the Pt-Al-Cr-Ni system will be presented with special focus on the Pt-rich side. The Cr-Pt binary system has been reassessed with the CALPHAD method, based on experimental data and first principles calculations. The four ternary alloy systems will be discussed based on available experimental data. A four sublattice model has been applied to describe the ordering reactions between the high temperature fcc phase and the low temperature L12 and L10 phases.

For more information contact Dr. Rebecca Janisch, rebecca.janisch@rub.de