

Using Computational Thermochemistry in Metallurgical Plants

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Abstract

In this presentation we focus on a few applications using thermodynamic calculations with the *FactSage* software and databases. Particularly, in steel plants most of the processing is based on experience only. Nevertheless, we will try to introduce predictive software in these processes. In applying and/or using *FactSage* software we experienced large discrepancies between what science want and what metallurgical plants want. We will highlight a few examples of applying thermochemical software in such experienced driven environment. Sometimes we need to relax the exact approach of thermodynamics and use less accurate approximations to please operators or process technologists. Examples of 'how to treat' blast furnace slags, converter slags etc. are presented. In most cases this implies the use of special designed, but very simple, software. It means the use of *ChemApp* instead of *FactSage 6.2*.