Practical Applications of FactSage at VOEST Donawitz

Alexander Paul

Voestalpine Stahl Donawitz GmbH, Leoben, Austria

Steel applications with high dynamic stress need a control of the secondary metallurgy treatment, especially with regard to the chemical analyse of non-metallic inclusions (NMI). For this purpose it is necessary to understand the thermodynamic background of the treatment.

Calculation variations were made for the chemical evolution of the NMI during RH-degassing process. The differences of the results between pressure and total oxygen content variation are shown and compared with SEM/EDX measurements on total oxygen samples (TOS). Furthermore the chemical refractory wear is implemented in the calculation and compared with the wear of the ladle refractory.