

InCorr for Windows

R. Naraparaju, V. B. Trindade, H.-J. Christ

Institut für Werkstofftechnik
Universität Siegen, Germany

Abstract

InCorr is a simulating software which can simulate the internal corrosion phenomena at high-temperatures and in different atmospheres. It works basically by solving two-dimensional diffusion equation having within certain conditions and integrates the local thermodynamical equilibrium calculations using ChemApp (commercial software by GTT-technologies). The simulation time is reduced by applying some parallel computing techniques such as PVM. The developed software initially was done in Linux environment. So the software needs to be run in Linux system which is not more user-friendly. Most of the latest soft wares are being used in Windows and they are more user-friendly. So the main aim of this work was to change the complete InCorr in to windows. Most important point regarding InCorr is that it can deal grain boundary diffusion and bulk diffusion differently. Currently, the work is going on to include the effect of shotpeening and water vapour in InCorr. Then using InCorr, one can solve many high-temperature corrosion problems effectively.