THE NATURE AND KINETICS OF ALUMINA-REFRACTORY DISSOLUTION DURING CHROMITE REDUTION

M.B.C. Tsomondo

The refractory lining wear during chromite reduction experiments at 1620-1680C was analysed in terms of the nature of the reactions taking place within the alumina holding crucible. The lining wear is influenced by both physical and chemical factors. Variations in slag composition, and hence reduction characteristics, were found to play a dominant role in refractory wear. The influence of marangoni interfacial flows on flux-line erosion became significant during the latter stages of the chromite reduction experiments. Conditions that omptimise the reduction kinetics were found to minimise refractory wear.