THERMODYNAMIC MODELS FOR SLAGS, OXIDES, MATTES AND SALTS

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Since 1988, NPL has been involved in an international industrially funded research project aimed at the development of a comprehensive thermodynamic database for solid and liquid slags, oxides and sulphides for use with MTDATA. The project has been a great success as demonstrated by the wide variety of processes which have benefited. A number of models were investigated to identify those best suited to represent thermodynamic properties accurately and which permit extrapolation into systems with a higher number of components. In this paper, based on this experience, a number of these models are reviewed and their limitations and strengths explored.