

Activity Data for NaF-AlF₃-Al₂O₃

Important in calculations concerning

- Cell voltage (reversible cell voltage, overvoltages at anode and cathode)
- Vapour pressure
- Sodium in aluminium
- Melt structure

During EXPOMAT/PROSMAT: Derived activity data for NaF/AlF₃ molar ratios in the range 1.4-3.0 and Al₂O₃ from 0 to saturation

Derivation based on equations fulfilling the requirements of the Gibbs-Duhem equation. Parameters adjusted by fitting

- Liquidus temperature
- Vapour pressure
- Emf data from different concentration cells
- Alumina solubility
- Integral and partial heats of mixing

A. Solheim and Å. Sterten, "Activity Data for the System NaF-AlF₃", Ninth International Symposium on Light Metals Production, Tromsø-Trondheim, Norway, August 18 - 21, 1997 (Proceedings, pp. 225/34).

A. Solheim and Å. Sterten, "Activity of Alumina in the System NaF-AlF₃-Al₂O₃ at NaF/AlF₃ Molar Ratios Ranging from 1.4 to 3", Light Metals 1999, pp. 445/52 (Proceedings, 128th TMS Annual Meeting, San Diego, California, 1999).

