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The thermodynamic properties of oxide-fluoride melts $Na^+, Al^{3\,+}/\!/ O^{2-}, F^-$

© Svetlana E. Pratskova

Department of Analytical and Physical Chemistry. Chelyabinsk State University. Br. Kashirinykh St., 129. Chelyabinsk, 454136. Russia. Phone: +7 (351) 799-70-69. E-mail: se pratskova@mail.ru.

Keywords: oxide-fluoride melts, generalized model of "regular" ionic solutions, activity of components, functions of mixing, excess function.

Abstract

The this paper calculated the functions of mixing and excess functions of oxide-fluoride melts of system $NaF-Na_2O-Al_2O_3-AlF_3$ in the temperature range from 1073-1473 to 1773-2073 K. Thermodynamic properties consistent with the most reliable experimental data on the thermodynamic characteristics of melting pure oxides and fluorides, Gibbs energy of the reaction of exchange and phase diagrams.