The Molar Volume of Molten Mixtures of MCl-LnCl$_2$
(M = Alkali Metals, Ln = Lanthanoides)

Alexei Potapov$^a$, Vladimir Khokhlov$^a$, and Nina Korosteleva$^b$

$^a$ Institute of High Temperature Electrochemistry, Ekaterinburg, Russia
$^b$ Ural State Technical University, Ekaterinburg, Russia

Reprint requests to Prof. A. P.; E-mail: A.Potapov@ihte.uran.ru


Empirical equations for the density and molar volume of molten binary mixtures of MCl-LnCl$_2$ and MCl-MeCl$_2$ (M = alkali metals; Ln = lanthanoides; Me = Ca, Sr, Ba) based on the density of individual components are suggested. The equations, taking into account the deviations of the molar volumes from their additive values, are applicable to all binary systems involving known rare earth dichlorides.

Key words: Molten Salts; Rare Earth Elements; Dichlorides; Density.