

## Accepted Manuscript

Physico-chemical properties of the system (LiF-NaF)eut-LaF<sub>3</sub> – Phase equilibria, density and volume properties, electrical conductivity and surface tension

Blanka Kubiková, Jarmila Mlynáriková, Ondřej Beneš, Eva Mikšíková, Jozef Priščák, Alberto Tosolin, Miroslav Boča



PII: S0167-7322(18)31963-9  
DOI: doi:[10.1016/j.molliq.2018.07.114](https://doi.org/10.1016/j.molliq.2018.07.114)  
Reference: MOLLIQ 9435

To appear in: *Journal of Molecular Liquids*

Received date: 13 April 2018

Revised date: 27 July 2018

Accepted date: 30 July 2018

Please cite this article as: Blanka Kubiková, Jarmila Mlynáriková, Ondřej Beneš, Eva Mikšíková, Jozef Priščák, Alberto Tosolin, Miroslav Boča , Physico-chemical properties of the system (LiF-NaF)eut-LaF<sub>3</sub> – Phase equilibria, density and volume properties, electrical conductivity and surface tension. Molliq (2018), doi:[10.1016/j.molliq.2018.07.114](https://doi.org/10.1016/j.molliq.2018.07.114)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**Physico-chemical properties of the system (LiF-NaF)<sub>eut</sub>-LaF<sub>3</sub> – phase equilibria, density and volume properties, electrical conductivity and surface tension**

Blanka Kubíková<sup>a</sup>, Jarmila Mlynáriková<sup>a</sup>, Ondřej Beneš<sup>b</sup>, Eva Mikšíková<sup>a</sup>, Jozef Priščák<sup>a</sup>, Alberto Tosolin<sup>b,c</sup> and Miroslav Boča<sup>a,\*</sup>

<sup>a</sup> *Institute of Inorganic Chemistry, Slovak Academy of Sciences, Dúbravská cesta 9, SK-845 36 Bratislava, Slovakia*

<sup>b</sup> *European Commission, Joint Research Centre, Directorate G – Nuclear Safety & Security, 76125 Karlsruhe, Germany*

<sup>c</sup> *Politecnico di Milano, Department of Energy, Via La Masa 34, 20156, Milan, Italy*

\*Corresponding author. Tel.: +421 2 59410 400; fax: +421 2 59410 444

*E-mail address: miroslav.boca@savba.sk*

**Abstract**

A detailed physico-chemical investigation of molten system (LiF-NaF)<sub>eut</sub>-LaF<sub>3</sub> up to 15 mol% of LaF<sub>3</sub> has been done. The phase equilibria were measured by two independent methods (TA and DSC) and consequently Calphad modelling and calculation was performed in order to interpret obtained experimental data. Additional physico-chemical properties like density, electrical conductivity and surface tension were measured. It was found that all investigated properties reflect the ionic changes in the melt providing consistent data, i.e. the most significant changes in these properties are observed at ca 10 mol% LaF<sub>3</sub>. The volume properties were calculated, as well, providing information about volume expansion. Also

Download English Version:

<https://daneshyari.com/en/article/7841873>

Download Persian Version:

<https://daneshyari.com/article/7841873>

[Daneshyari.com](https://daneshyari.com)