

Thermodynamic properties of zirconium hydroxo-complexes in aqueous solutions

O. N. Vasina¹, N. D. Shikina², E. V. Gurova¹, E. S. Popova¹, B. R. Tagirov², I. L. Khodakovskiy^{1,3}

¹ Dubna International University of Nature, Society, and Man, Dubna

² Institute of Ore Deposit Geology, Petrography, Mineralogy and Geochemistry RAS, Moscow

³ V. I. Vernadsky Institute of Geochemistry and Analytical Chemistry RAS, Moscow

medolik@list.ru

Experimental data on solubility of ZrO₂ in aqueous solutions of chloric acid at 150 and 250°C, the equations of the temperature dependences of equilibrium constants of dissolution reactions of ZrO₂ and thermodynamic properties of zirconium hydroxo-complexes and ion Zr⁴⁺ (aq) at 25°C are presented.

Key words: zirconium dioxide, solubility, aqueous solutions, hydroxo-complexes, a zirconium ion, thermodynamic properties

Citation: Vasina, O. N., N. D. Shikina, E. V. Gurova, E. S. Popova, B. R. Tagirov, I. L. Khodakovskiy (2012), Thermodynamic properties of zirconium hydroxo-complexes in aqueous solutions, *Vestn. Otd. nauk Zemle*, 4, NZ9001, doi:10.2205/2012NZ_ASEMPG.