

NEUTRON STUDIES OF THE NaBr  
IMPURITY INFLUENCE ON MICELLE  
FORMATION IN THE HEAVY WATER–  
TETRADECYLTRIMETHYLAMMONIUM  
BROMIDE SYSTEM

*L.A. Bulavin*<sup>1</sup>, *V.I. Gordeliy*<sup>2,3</sup>, *O.I. Ivankov*<sup>1,2</sup>,  
*A.Kh. Islamov*<sup>2</sup>, *A.I. Kuklin*<sup>2</sup>

<sup>1</sup>Taras Shevchenko National University of Kyiv,  
Faculty of Physics  
(2, Academician Glushkov Ave., Bld. 1,  
Kyiv 03022, Ukraine),

<sup>2</sup>I.M. Frank Laboratory of Neutron Physics,  
Joint Institute for Nuclear Research  
(6, Joliot-Curie Str., 141980 Dubna,  
Moscow region, Russia),

<sup>3</sup>Institut de Biologie Structurale J.P. Ebel  
(41, Jules Horowitz Str., F-38027 Grenoble, France)

S u m m a r y

Micelle formation in the triple liquid system tetradecyltrimethylammonium bromide–heavy water–NaBr has been studied by means of small-angle neutron scattering (SANS). The rescaled mean-spherical approximation by Hayter–Penfold has been used to treat the small-angle neutron diffraction data on charged micelles. The dependences of the micelle size and aggregation number on the liquid system temperature and NaBr concentration have been found.