## THE ANGULAR DISTRIBUTIONS OF THE VECTOR $A_y$ AND TENSOR $A_{yy}$ , $A_{xx}$ , $A_{xz}$ ANALYZING POWERS IN THE $dd \rightarrow^3 Hp$ and $dd \rightarrow^3 Hen$ REACTIONS AT Ed = 200 and 270 MeV

 $\frac{A.K. \ Kurilkin}{A.K. \ Kurilkin}^{(a,*)}, \ M. \ Janek^{(a,e,**)}, \ T. \ Saito^{(b)}, \ V.P. \ Ladygin^{(a)}, \ T. \ Uesaka^{(c)}, \ T.A. \ Vasiliev^{(a)}, \ M. \ Hatano^{(b)}, \ A.Yu. \ Isupov^{(a)}, \ H. \ Kato^{(b)}, \ N.B. \ Ladygina^{(a)}, \ Y. \ Maeda^{(c)}, \ A.I. \ Malakhov^{(a)}, \ J. \ Nishikawa^{(d)}, \ T. \ Ohnishi^{(f)} \ H. \ Okamura^{(h)}, \ S.G. \ Reznikov^{(a)}, \ H. \ Sakai^{(b,c)}, \ N. \ Sakamoto^{(f)}, \ S. \ Sakoda^{(b)}, \ Y. \ Satou^{(g)}, \ K. \ Sekiguchi^{(f)}, \ K. \ Suda^{(c)}, \ A. \ Tamii^{(g)}, \ N. \ Uchigashima^{(b)}, \ K. \ Yako^{(b)}$ 

(a) LHE-JINR, 141-980 Dubna, Moscow region, Russia

(b) Department of Physics, University of Tokyo, Bunkyo, Tokyo 113-0033, Japan

(c) Center for Nuclear Study, University of Tokyo, Bunkyo, Tokyo 113-0033, Japan

(d) Department of Physics, Saitama University, UraWa 338-8570, Japan

(e) University of P.J. Safarik, 041-54 Kosice, Slovakia (f) RIKEN, Wako, Saitama 351-0198, Japan

(g) Research Center for Nuclear Physics, Osaka University, Ibaraki 567-0047, Japan
(h) CYRIC, Tohoku University, Sendai, Miyagi 980-8578, Japan

The data on the vector  $A_y$  and tensor  $A_{yy}$ ,  $A_{xx}$ ,  $A_{xz}$  analyzing powers for the  $\overrightarrow{d} d \rightarrow {}^3Hp$  and  $\overrightarrow{d} d \rightarrow {}^3Hen$  reactions at  $E_d = 200$  and 270 MeV are presented. The data demonstrate large values of analyzing powers and their strong variation versus the scattering angle. The observed negative sign of the tensor analyzing powers for these reactions at small angles clearly demonstrate the sensitivity to the D/S ratio of the  ${}^3H$  and  ${}^3He$  wave functions, respectively. The calculations performed within one-nucleon exchange model with the use of the standard three-nucleon bound state wave functions fail to reproduce the data on the tensor analyzing powers.

E-mail: akuril@sunhe.jinr.ru, janek@sunhe.jinr.ru