

**STUDY OF  ${}^6\text{He} - d$  REACTIONS  
AT THE ACCULINNA-2 SEPARATOR**

Zalewski B.<sup>1,2</sup>, Belogurov S.G.<sup>1,3</sup>, Bezbakh A.A.<sup>1,4</sup>, Chudoba V.<sup>1,5</sup>,  
Fomichev A.S.<sup>1,6</sup>, Gazeeva E.M.<sup>1,6</sup>, Golovkov M.S.<sup>1,6</sup>, Gorshkov A.V.<sup>1,4</sup>,  
Kaminski G.<sup>1,2</sup>, Krupko S.A.<sup>1,4</sup>, Mauryey B.<sup>1,7,8</sup>, Muzalevskii I.A.<sup>1,5,6</sup>,  
Napiorkowski P.<sup>2</sup>, Nikolskii E.Yu.<sup>1,9</sup>, Piątek W.<sup>2</sup>, Pluciński P.<sup>2</sup>, Rusek K.<sup>2</sup>,  
Serikov A.<sup>1,6</sup>, Sidorchuk S.I.<sup>1</sup>, Slepnev R.S.<sup>1</sup>, Sharov P.G.<sup>1,4</sup>, Sokołowska N.<sup>10</sup>,  
Ter-Akopian G.M.<sup>1,6</sup>, Trzcińska A.<sup>2</sup>, Wolski R.<sup>1,11</sup>

<sup>1</sup> Flerov Laboratory of Nuclear Reactions, JINR, Dubna, Russia; <sup>2</sup> Heavy Ion Laboratory, University of Warsaw, Warsaw, Poland; <sup>3</sup> National Research Nuclear University, MEPhI, Russia; <sup>4</sup> SSC RF ITEP of NRC "Kurchatov Institute", Russia; <sup>5</sup> Institute of Physics, Silesian University in Opava, Czech Republic; <sup>6</sup> Dubna State University, Russia; <sup>7</sup> Institute of Nuclear Physics, Kazakhstan; <sup>8</sup> L.N. Gumilyov Eurasian National University, Kazakhstan; <sup>9</sup> National Research Center "Kurchatov Institute", Russia; <sup>10</sup> Faculty of Physics, University of Warsaw, Poland; <sup>11</sup> Institute of Nuclear Physics PAN, Poland  
E-mail: zalewski@slcj.uw.edu.pl

Measurement of reactions of  ${}^6\text{He}$  with deuterium target was performed in inverse kinematics at the beam energy of 160 MeV. The measurement was performed at the ACCULINNA-2 fragment separator, Joint Institute for Nuclear Research, Russia using  ${}^6\text{He}$  beam delivered by U400M cyclotron. Both energies and angles of the ejectiles were detected in a range from 30 to 80 degrees in the laboratory frame. Preliminary data analysis of elastic scattering in terms of optical model will be presented.