

**HIGH ENERGY EXCITATION REGION OF  $^{24}\text{Mg}$   
IN THE  $^{12}\text{C}(^{16}\text{O}, ^{16}\text{O}, ^8\text{Be})\alpha$  REACTION STUDY**

**Z. Bazrak, D. Vincheguera, O. Yu. Goryunov, S. Zilner, M. Lattuada,  
V. V. Ostashko, S. Tudisco, A. Tumino, S. Romano, C. Spitaleri, P. Figuera**

The  $^{24}\text{Mg}$  states in the energy excitation from 35 to 52 MeV were observed in complete kinematical study of 4-particle  $^{16}\text{O}+^{12}\text{C} \rightarrow ^{16}\text{O} + 3\alpha$  reaction. These states correspond to excitation of  $^{16}\text{O}_{\text{g.s.}}+^8\text{Be}_{\text{gs}}$  system. The energy widths of these states are around 1MeV. It cannot describe all states only one rotation sequence with the moment of inertia 93 keV, which can be treated as possible manifestation of different deformations in  $^{24}\text{Mg}$  in this reaction.