**Review on the project**

**"Development of the tagged neutron method for identification of the elemental structure of a substance and the study of nuclear reactions"**

The proposed project is a extension of the project TANGRA which has been started in 2014. The project is the implementation of the tagged neutron method (TNM) for experimental studies in fundamental and applied research for the next three years (2017-2019).

An important advantage of TNM is the ability to monitor the flux of tagged neutrons with almost 100% efficiency. The advantages of this project are achieved by using a neutron generator ING-27 with a 64-pixel alpha detector that fixes the direction of neutron emission and a multi-detector system of the “Romashka”, approaching 4π-geometry both in the gamma-ray and neutron detection mode and having high efficiency.

One of objectives is to improve existing nuclear data, primarily for the nitrogen, oxygen, carbon, silicon and phosphorus nuclei by using the TNM. Fundamental research includes the study of angular distributions of γ-rays and neutrons produced in the inelastic neutron scattering reactions with energy of 14 MeV on the nuclei of the above chemical elements, as well as the measurement of excitation cross sections for a number of nuclear levels.

The authors from several institutes and laboratories reasonably presents a justification for expanding the experimental facility - both through the use of new neutron and gamma-ray detectors and the improvement of electronics. The requested funds for the implementation of the project TANGRA for the next three years (2017-2019) seem reasonable.

Project evaluation:  
A -Scientific, methodologicalor technicalimportance (in the range of0-10points):9 points;  
B- Competitiveness(in the range of 0-5 points):5 points;  
C- Project implementationprobability (in the range of0-1 point(s)): 1 point;  
D- Complianceof resourcesto Project importance(in the range of0-1 point(s)): 1 point;  
E- Qualificationof the authors andpersonnelavailability (in the range of0-5points):5 points;  
F-Total score(in the range of0-20 points): 19points;

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