

THE FLOWS OF NEUTRONS OF SPACE RADIATION AND FROM TERRESTRIAL CRUST

Vol.(1);Zak.(1);Kuz(1);Nec.(1);Pod.(1);Chub.(2);Shep.(2);Ant.(3)
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The experimental researches on Northern Tyan'-Shan' were carried out at height 3340 m above a sea level (Zhusalykesen' pass, high-mountainous scientific station Physical Institute RAS) in August and December, 1999. The neutrons and alpha-particles were measured. The data from the neutron monitor and counters of the secondary cosmic charged particles located there were attracted also. The data set has allowed to estimate a share of thermal and slow neutrons near to ground caused by processes in terrestrial crust, in total of neutrons making a neutron background. Dynamics of change of a flow of neutrons connected with the tide forces in terrestrial crust during a complete solar eclipse of August 11, 1999 and new Moon of December 7, 1999 also was observed. The contribution of neutrons from terrestrial crust has made 20-25 % from a total neutron background. The flow alpha-particles which form additional flow of neutrons had the top limit $0.12(+/-)0.08 \text{ min}^{-1}\text{m}^{-2}$. The experiment has confirmed, that one of the reasons of the neutron burst appearances can be influence on the Earth of the Moon and the Sun.