

Clustering with ^4He nucleus participation

We renewed the analysis of emulsion irradiations by ^{22}Ne , ^{24}Mg , ^{28}Si , and ^{32}S nuclei at a 4.5A GeV/c momentum.

We are planning to search for and investigate fragmentation of these nuclei by observing the final states containing a few α -particles.

Search for states considered as nuclear molecules is of special interest.

Our approach will enable us to make the choice between the definition of this resonance as a configuration of a few bound α -particles or a resonance arising only in a nuclear scattering.