

## **Nuclear spallation**

Studies of proton induced disintegration mechanisms of nuclei at 100 – 230 MeV energy

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Mechanisms of disintegration of nuclear system after its collision with the light projectile of energy from a few to several hundreds of MeV remains a challenging theoretical issue over last decades. Due to complication of the examined many-body quantum system the firmly established theory is nowadays still not possible. Instead the effective models are used in order to understand the experimental data. They are successful in qualitative description of only the simplest quantities like the particles yields. But models fail when compared to more specific observables like the energy or angular distributions. The progress in the theoretical description of involved processes is induced by increase of availability and quality of experimental data.

The experimental studies of the proton induced spallation processes in their lowest energy region conducted at the Cyclotron Centre Bronowice of Institute of Nuclear Physics PAN in Kraków will be presented as a complementary contribution to the broader experimental program performed in recent years in Europe. The experimental conditions demanded for successful research and the possible development of the relevant infrastructure will be discussed.