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Study of the reactions 78Kr+40Ca and 86Kr+48Ca at 10 AMeV

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In this work, the principal results of data analysis of the reactions 78Kr +40 Ca and 86Kr +48Ca at laboratory energy of 10 AMeV, will be presented.
The experiment has been carried out at INFN-Laboratori Nazionali del Sud, with the 4π multidetector CHIMERA, which is used for the first time in this low energy regime, thanks to the implementation of its identification capabilities (pulse shape discrimination on silicon detectors).
The isospin influence on the reaction mechanisms in central and semi-central collisions has been investigated, with particular attention to Evaporation, and Fission-like processes following Fusion and to the break-up mechanism of the Projectile-like Fragment.
The dynamical or statistical nature of the mentioned reaction mechanisms has been studied through the analysis of fragments kinematics features and a dependence on the isopin of the involved system has been found.
The energy spectra of alpha particles have studied in order to obtain information about the temperature of their emission source in the two systems.
Finally, a comparison of the experimental data with the results of some theoretical models will be presented.

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