

Promising experimental approach in the intermediate energy region of relativistic nuclear collisions.

Existing experimental data and possible research tasks for the NICA JINR accelerator complex.

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The analysis of specific features of secondary particle production with account of collective effects in nuclear matter is performed based on the vast experimental material obtained in the experiments with the bubble chambers. A unified form of self-similarity description of inclusive pi meson distributions in the cumulative and non-cumulative energy region is presented. Promising experiments at the energies of the accelerator complex NICA are considered. Optimal kinematical conditions for finding new regularities in multi-particle relativistic nuclear collisions are discussed.