IMPLEMENTATION OF A THERMODYNAMIC FORMULA OF NUCLEUS-NUCLEUS COLLISIONS IN EAS DATA ANALYSIS

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A thermodynamic description of nucleus interactions is made on the basis of recent accelerator data. The thermodynamic formula for the momentum spectra of the secondary mesons in p-p collisions, e^+e^- annihilation and DIS is adjusted for nucleus collisions. It allows extrapolating accelerator data to the high-energy region of the EAS in cosmic rays. A precise parametrisation of the fragmentation properties is derived for estimation of the mass composition of primary cosmic rays on the basis of EAS data.