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## Two source emission behavior of projectile fragments alpha in $^{84}\text{Kr}$ interactions at around 1 GeV per nucleon

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The emission of projectile fragments alpha has been studied in  $^{84}\text{Kr}$  interactions with nuclei of the nuclear emulsion detector composition at relativistic energy below 2 GeV per nucleon. The angular distribution of projectile fragments alpha in terms of transverse momentum could not be explained by a straight and clean-cut collision geometry hypothesis of Participant – Spectator (PS) Model. Therefore, it is assumed that projectile fragments alpha were produced from two separate sources that belong to the projectile spectator region differing drastically in their temperatures. It has been clearly observed that the emission of projectile fragments alpha are from two different sources. The contribution of projectile fragments alpha from contact layer or hot source is a few percent of the total emission of projectile fragments alphas. Most of the projectile fragments alphas are emitted from the cold source.

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