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How to distinguish coalescence from thermal production of light nuclei

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There are discussed two methods to distinguish the coalescence from thermal production of light nuclei. At first the hadron-deuteron correlation function is shown to carry information about an origin of deuterons, whether they are emitted from a fireball together with all other hadrons or formed due to final state interactions after nucleons left the fireball. Secondly, it is proposed to measure the yield of an exotic nuclide ^{4}Li and compare it the yield of ^{4}He. The coalescence and thermal models predict a significantly different ratio of the yields of ^{4}Li to ^{4}He. A measurement of ^{4}Li is discussed.

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