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(54) **DRIFT TUBES**

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(57)

ABSTRACT

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Disclosed include a drift tube for particle detection, a detection system including one or more of the drift tubes, a method of producing a drift tube, and a detection method using a drift tube and/or a detection systems. The drift tube may include: a housing tube extending along a longitudinal axis and structured to include a first end, a second end, and an internal surface configured as a cathode, a first end cap and a second end cap hermetically engaged to and electrically isolated from the first end and the second end of the housing tube, respectively; a detection gas enclosed inside the housing tube and configured for undergo ionization by charged particles; and an anode wire traversing the housing tube along the longitudinal axis and being configured to detect the ionization that indicates a track of the charged particles inside the drift tube.

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