ABSTRACT

The present disclosure discloses a detector device comprising a plurality of detector assemblies. Each detector assembly comprises at least one detection crystal units having a first energy response and those having a second energy response, which are both arranged along a first direction at intervals, each detection crystal unit having a first/second energy response including at least one detection crystals having a first/second energy response arranged along a second direction. . The at least one detection crystal units having a first energy response and the at least one detection crystal units having a second energy response are, at least partially, alternatively arranged along the first direction when viewed from an incidence direction of the X-ray. The present disclosure also discloses a dual energy CT system having the detector device and a CT detection method using this system.

(Fig. 3(a))

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(Fig. 3(a))