Title (en)

X-RAY DETECTOR HAVING INCREASED RESOLUTION, ARRANGEMENT, AND CORRESPONDING METHODS

Title (de)

RÖNTGENSTRAHLENDETEKTOR MIT ERHÖHTER AUFLÖSUNG, ANORDNUNG UND VERFAHREN HIERZU

Title (fr)

DÉTECTEUR DE RAYONS X AYANT UNE RÉSOLUTION ACCRUE, AGENCEMENT, ET PROCÉDÉS CORRESPONDANTS

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Application

EP 21839025 A 20211208

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Abstract (en)

[origin: WO2022122824A1] The invention relates to an arrangement (10) consisting of an X-ray detector (20) and a shielding element (30) that shields X-rays (RX) and is intended for increasing the spatial resolution of the X-ray detector (20), wherein the X-ray detector (20) comprises at least one detector array (22) having at least one detector element (24) which is arranged along the detector array (22), the shielding element (30) comprises one or more regions (31) that are opaque to X-rays (RX) and at least one region (32) that is transparent to X-rays (RX), the shielding element (30) is arranged above the reception surface (23) for the X-rays (RX) of the at least one detector element (24), and the shielding element (30) and the at least one detector element (24) are movable relative to one another such that the effective reception surface for X-rays (RX) of the at least one detector element (24) can be changed accordingly. The invention also relates to an X-ray inspection system (100) comprising the arrangement (10), as well as to methods for increasing the spatial resolution of the X-ray detector (20) arranged in the arrangement (10), and to a processing apparatus (300) for carrying out the methods, and to a system (400) consisting of the X-ray inspection system (100) and the processing apparatus (300).

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