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SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 21 89 00 29

Classification of the application (IPC):
A61N 5/10, A61N 5/00, G01T 1/161, G01T 1/29, G01T 1/20, G01T 1/40

Technical fields searched (IPC):
A61N, G01T

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	WO 2020033250 A1 (INTEGRATED SENSORS LLC [US]) 13 February 2020 (2020-02-13) * paragraphs [0039], [0043], [0047], [0085] - [0091], [0106], [0129], [0134] - [0135], [0143] - [0147]; figures 8-14 *	1-3, 5-9, 11-15
X	BERG F ET AL: "A non-invasive ultra-thin luminophore foil detector system for secondary beam monitoring" <i>ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853</i> , 28 May 2019 (2019-05-28), DOI: 10.1016/J.NIMA.2019.163298, XP081588328 * §2, §2.3, §3.1; figures 2,9 *	1, 4, 15
X	US 2002070365 A1 (KARELLAS ANDREW [US]) 13 June 2002 (2002-06-13) * paragraphs [0176], [0182]; figure 25A *	9, 10, 15
X	YOGO KATSUNORI ET AL: "Scintillator screen for measuring dose distribution in scanned carbon-ion therapy" <i>RADIATION MEASUREMENTS, ELSEVIER, AMSTERDAM, NL</i> , 01 October 2019 (2019-10-01), vol. 129, DOI: 10.1016/J.RADMEAS.2019.106207, ISSN: 1350-4487, XP085928282 * §2.1; figure 1 *	9, 15
X	US 7352840 B1 (NAGARKAR VIVEK V [US] ET AL) 01 April 2008 (2008-04-01) * column 11, lines 21-35; figure 9 * * column 16, lines 48-67 *	9, 15
X	US 2016116607 A1 (HORIUCHI HIROSHI [JP] ET AL) 28 April 2016 (2016-04-28) * paragraph [0098]; figure 19 *	9, 15
X	US 2020309973 A1 (WHITE BRIAN [US] ET AL) 01 October 2020 (2020-10-01) * paragraphs [0069] - [0070], [0080] - [0084]; figures 4, 8, 9 *	9, 15

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search The Hague	Date of completion of the search 19 July 2024	Examiner Johnstone, John
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CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
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Application number:
EP 21 89 00 29

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	JP 2020160079 A (HAMAMATSU PHOTONICS KK) 01 October 2020 (2020-10-01) * paragraphs [0037] - [0038]; figure 1 *	9, 15

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search The Hague	Date of completion of the search 19 July 2024	Examiner Johnstone, John
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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-15

All searchable inventions.

1.1. claims: 1-8(completely); 15(partially)

An ionizing-radiation beam monitoring system comprising an enclosure structure containing a thin scintillator comprising an inorganic phosphor layer; a UV-LED calibration system; and a pixelated imaging system oriented at an angle of incidence of 45 ? 35 degrees to a surface of the scintillator.

1.2. claims: 9-14(completely); 15(partially)

An ionizing-radiation beam monitoring system comprising an enclosure structure containing a thin scintillator comprising a GOS material; a machine vision camera with a lens and a mirror close to the lens, having a projection of its optical axis oriented at an angle of incidence of 45 ? 35 degrees to a surface of the scintillator, and a computing system that processes and analyzes image data streaming in real-time from the machine vision camera system.

Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search The Hague	Date of completion of the search 19 July 2024	Examiner Johnstone, John
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**ANNEX TO SUPPLEMENTARY EUROPEAN
SEARCH REPORT**

 Application number:
EP 21 89 00 29

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 19-07-2024.
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