

Title (en)
METHOD AND DEVICE FOR IDENTIFYING ATOMIC SPECIES EMITTING X- OR GAMMA RADIATION

Title (de)
VERFAHREN UND VORRICHTUNG ZUR IDENTIFIZIERUNG VON ATOMAREN SPEZIES, DIE X- ODER GAMMASTRAHLUNG EMITTIEREN

Title (fr)
PROCEDE ET DISPOSITIF D'IDENTIFICATION D'ESPECES ATOMIQUES EMETTANT UN RAYONNEMENT X OU GAMMA

Publication
EP 3977175 A1 20220406 (FR)

Application
EP 20727669 A 20200528

Priority

- FR 1905682 A 20190528
- EP 2020064790 W 20200528

Abstract (en)
[origin: WO2020239884A1] Disclosed is a method for identifying emitting species (S1 – SN) emitting X- or gamma radiation in a scene, in which a spectrum of the radiation is provided as input of a first set (CBNN_ID) of a plurality of convolutional neural networks, each convolutional neural network of the first set being associated with at least one atomic species to be identified and having at least one output (CS) indicative of the presence or absence of the atomic species in the scene. Advantageously, a second set (CBNN_PRO) of a plurality of convolutional neural networks makes it possible to determine a signal proportion of each emitting species present in the X- or gamma radiation emanating from the scene. A device for implementing such a method is also disclosed.

IPC 8 full level
G01T 1/167 (2006.01); **G01T 1/169** (2006.01)

CPC (source: EP KR US)
G01T 1/167 (2013.01 - EP KR); **G01T 1/169** (2013.01 - EP KR); **G01T 1/36** (2013.01 - KR US); **G06N 3/08** (2013.01 - US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2020239884 A1 20201203; CN 114008489 A 20220201; EP 3977175 A1 20220406; FR 3096782 A1 20201204; FR 3096782 B1 20221007; JP 2022533815 A 20220726; JP 7545415 B2 20240904; KR 20220014329 A 20220204; US 2022252744 A1 20220811

DOCDB simple family (application)
EP 2020064790 W 20200528; CN 202080045734 A 20200528; EP 20727669 A 20200528; FR 1905682 A 20190528; JP 2021565764 A 20200528; KR 20217042736 A 20200528; US 202017614276 A 20200528