

Title (en)
RADIATION ANALYSIS SYSTEM AND METHOD

Title (de)
STRAHLUNGSANALYSESYSTEM UND VERFAHREN

Title (fr)
SYSTÈME ET PROCÉDÉ D'ANALYSE DE RAYONNEMENT

Publication
EP 2917849 A4 20160817 (EN)

Application
EP 13858849 A 20131112

Priority

- US 201213674649 A 20121112
- US 2013069682 W 20131112

Abstract (en)
[origin: WO2014085081A1] A radiation analysis system/method that automatically optimizes the efficiency calibration of a counting system based on benchmark data and variable parameters associated with radiation source/sensor/environment (RSSE) combinations is disclosed. The system/method bifurcates RSSE context (SSEC) model parameters into WELL-KNOWN (fixed) parameters (WNP) and NOT-WELL-KNOWN (variable) parameters (NWP) The NWP have associated lower/upper limit values (LULV) and a shape distribution (LUSD) describing NWP characteristics. SSEC models are evaluated using randomized statistical NWP variations or by using smart routines that perform a focused search within the LULV / LUSD to generate model calibration values (MCV) and calibration uncertainty values (UCV) describing the overall SSEC efficiencies.

IPC 8 full level
G06F 17/17 (2006.01); **G01T 1/36** (2006.01); **G01T 7/00** (2006.01); **G01V 5/00** (2006.01)

CPC (source: EP)
G01T 1/167 (2013.01); **G01T 1/36** (2013.01); **G01T 7/005** (2013.01); **G01V 5/281** (2024.01)

Citation (search report)

- [XI] MENAA N ET AL: "Mathematical efficiency calibration with uncertain source geometries using smart optimization", ADVANCEMENTS IN NUCLEAR INSTRUMENTATION MEASUREMENT METHODS AND THEIR APPLICATIONS (ANIMMA), 2011 2ND INTERNATIONAL CONFERENCE ON, IEEE, 6 June 2011 (2011-06-06), pages 1 - 7, XP032153535, ISBN: 978-1-4577-0925-8, DOI: 10.1109/ANIMMA.2011.6172913
- See references of WO 2014085081A1

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

DOCDB simple family (publication)
WO 2014085081 A1 20140605; EP 2917849 A1 20150916; EP 2917849 A4 20160817

DOCDB simple family (application)
US 2013069682 W 20131112; EP 13858849 A 20131112