

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

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- 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
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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)
[X1] 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

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