

Title (en)
SYSTEMS AND METHODS FOR DETERMINISTIC EMITTER SWITCH MICROSCOPY

Title (de)
SYSTEME UND VERFAHREN FÜR DETERMINISTISCHE EMITTER-SWITCH-MIKROSKOPIE

Title (fr)
SYSTÈMES ET PROCÉDÉS DE MICROSCOPIE DÉTERMINISTE À COMMUTATION D'ÉMETTEURS

Publication
EP 2769417 A1 20140827 (EN)

Application
EP 12842617 A 20121018

Priority

- US 201161549046 P 201111019
- US 201161562551 P 201111122
- US 201261591570 P 20120127
- US 201261624647 P 20120416
- US 2012060735 W 20121018

Abstract (en)
[origin: WO2013059404A1] Techniques for deterministic switch microscopy include resolving at least one nitrogen vacancy center in a diamond structure. A magnetic field can be applied across the diamond structure and the nitrogen vacancy centers can be optically excited. The nitrogen vacancy centers can be switched from a dark state to a bright state or a bright state by a dark state by applying at least one microwave pulse. A fluorescent response of each nitrogen vacancy center can be detected and a nitrogen vacancy center can be resolved based on the fluorescent response of each nitrogen vacancy center as it corresponds to the orientation of the nitrogen vacancy center relative to the applied magnetic field.

IPC 8 full level
H01L 29/66 (2006.01); **G01N 21/64** (2006.01)

CPC (source: EP)
G01N 21/6458 (2013.01); **G01N 21/6489** (2013.01)

Cited by
US9829545B2; US9853837B2; US10126377B2; US10371760B2; US10006973B2; US10168393B2; US10466312B2; US10241158B2; US10338163B2; US10520558B2; US10012704B2; US10088336B2; US10359479B2; US10277208B2; US10345396B2; US10379174B2; US10408889B2; US9823314B2; US9910105B2; US10725124B2; US9835694B2; US9835693B2; US10145910B2; US10274550B2; US9823313B2; US9845153B2; US10281550B2; US9824597B2; US10317279B2; US10338164B2; US9638821B2; US9823381B2; US9910104B2; US10088452B2; US10228429B2; US10345395B2; US10120039B2; US10338162B2; US10571530B2; US9614589B1; US10330744B2; US10333588B2; US10371765B2; US10408890B2; US10459041B2; US10527746B2; US10677953B2

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 2013059404 A1 20130425; EP 2769417 A1 20140827; EP 2769417 A4 20150527

DOCDB simple family (application)
US 2012060735 W 20121018; EP 12842617 A 20121018