Title (en)

DEVICE AND METHOD FOR USING DIAMOND NANOCRYSTALS HAVING NV COLOUR CENTRES IN CMOS CIRCUITS

Title (de)

VORRICHTUNG UND VERFAHREN ZUR VERWENDUNG VON DIAMANT-NANOKRISTALLEN MIT NV-FARBZENTREN IN CMOS-SCHALTKREISEN

Title (fr)

DISPOSITIF ET PROCÉDÉ D'UTILISATION DE NANOCRISTAUX DE DIAMANT COMPORTANT DES CENTRES DE COULEURS NV DANS DES CIRCUITS CMOS

Publication

EP 3977147 A1 20220406 (DE)

Application

EP 20730177 A 20200517

Priority

- DE 102019114032 A 20190525
- DE 2020100430 W 20200517

Abstract (en)

[origin: WO2020239172A1] The application relates to quantum-technological, micro-electro-optical, electronic or photonic systems and methods for the production thereof. Preferably, NV centres and diamond nanocrystals and CMOS circuits are used. However, the proposed technical teaching is not expressly limited thereto. The core concept is connecting such colour centres securely to a semiconductor circuit or to a thick-film circuit.

IPC 8 full level

G01R 33/032 (2006.01); **C30B 29/04** (2006.01); **G01R 33/24** (2006.01); **H01L 27/15** (2006.01); **H01L 33/00** (2010.01); **H10N 99/00** (2023.01)

CPC (source: EP US)

C30B 29/04 (2013.01 - EP); **G06N 10/40** (2022.01 - EP); **H01L 27/15** (2013.01 - EP); **H01L 33/0004** (2013.01 - EP US); **H01L 33/58** (2013.01 - US); G01R 33/032 (2013.01 - EP); G01R 33/26 (2013.01 - EP)

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102019009145 A1 20201126; CN 113874743 A 20211231; DE 102019009126 A1 20201126; DE 102019009126 B4 20240606; DE 102019009133 A1 20201126; DE 102019009133 B4 20240606; DE 102019009136 A1 20201126; DE 102019009136 B4 20240606; DE 102019121028 A1 20201126; DE 102019121028 B4 20230615; DE 102019121029 A1 20201126; DE 102019121029 B4 20231012; DE 112020002588 A5 20220310; EP 3977147 A1 20220406; US 2022231185 A1 20220721; WO 2020239172 A1 20201203

DOCDB simple family (application)

DE 102019009145 A 20190804; CN 202080039101 A 20200517; DE 102019009126 A 20190804; DE 102019009133 A 20190804; DE 102019009136 A 20190804; DE 102019121028 A 20190804; DE 102019121029 A 20190804; DE 112020002588 T 20200517; DE 2020100430 W 20200517; EP 20730177 A 20200517; US 202017613750 A 20200517