

Title (en)

ELECTRON TRANSPORT GATE CIRCUITS AND METHODS OF MANUFACTURE, OPERATION AND USE

Title (de)

ELEKTRONENTRANSPORT-GATE-SCHALTUNGEN UND HERSTELLUNGSVERFAHREN, BETRIEB UND VERWENDUNG

Title (fr)

CIRCUITS DE PORTE DE TRANSPORT D'ÉLECTRONS ET PROCÉDÉS DE FABRICATION, DE FONCTIONNEMENT ET D'UTILISATION

Publication

**EP 3701568 A4 20210804 (EN)**

Application

**EP 18869562 A 20181029**

Priority

- US 201762578483 P 20171029
- US 201762581766 P 20171105
- US 201762584898 P 20171112
- US 201762590632 P 20171126
- US 201862614412 P 20180106
- US 201862641382 P 20180311
- US 2018057959 W 20181029

Abstract (en)

[origin: WO2019084537A1] A circuit is disclosed that includes a first electrode, a second electrode and a plurality of quantum dot devices disposed between the first electrode and the second electrode. An impedance is coupled to the second electrode and has a value selected to conduct or block conduction of current when a coherent electron conduction band is formed by one or more of the quantum dot devices, such as with quantum dot devices in an adjacent circuit.

IPC 8 full level

**H01L 29/68** (2006.01); **H01L 51/00** (2006.01); **H01L 51/05** (2006.01)

CPC (source: EP)

**B82Y 10/00** (2013.01); **H01L 29/127** (2013.01); **H01L 29/66977** (2013.01); **H01L 29/68** (2013.01); **H10K 10/20** (2023.02); **G06N 3/045** (2023.01); **G06N 3/065** (2023.01); **H01L 27/0814** (2013.01); **H01L 29/861** (2013.01)

Citation (search report)

No further relevant documents disclosed

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 2019084537 A1 20190502**; CN 111357118 A 20200630; EP 3701568 A1 20200902; EP 3701568 A4 20210804

DOCDB simple family (application)

**US 2018057959 W 20181029**; CN 201880070919 A 20181029; EP 18869562 A 20181029