US 20230231016A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0231016 A1**

Tanamoto (43) **Pub. Date: Jul. 20, 2023**

(54) **QUANTUM DEVICE**

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(21) Appl. No.: **17/928,807**

(22) PCT Filed: **May 28, 2021**

(86) PCT No.: **PCT/JP2021/020364**

§ 371 (c)(1),
(2) Date: **Nov. 30, 2022**

(30) **Foreign Application Priority Data**

Jun. 12, 2020 (JP) 2020-102530

Publication Classification

(51) **Int. Cl.**
H01L 29/12 (2006.01)
H01L 29/06 (2006.01)

(52) **U.S. Cl.**
CPC ***H01L 29/125*** (2013.01); ***H01L 29/0669*** (2013.01); *H01L 31/035218* (2013.01)

(57) **ABSTRACT**

A quantum device includes a transistor structure section having a source, a drain, and a gate, one or more quantum dot structure sections in which a charge is localizable, and a quantum bit control current line configured to change a state of the charge in the quantum dot structure section.