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(72) Inventor: **Tetsufumi Tanamoto**, Utsunomiya-shi (JP)**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)(73) Assignee: **Teikyo University**, Tokyo (JP)(21) Appl. No.: **17/928,807**(22) PCT Filed: **May 28, 2021**(86) PCT No.: **PCT/JP2021/020364**

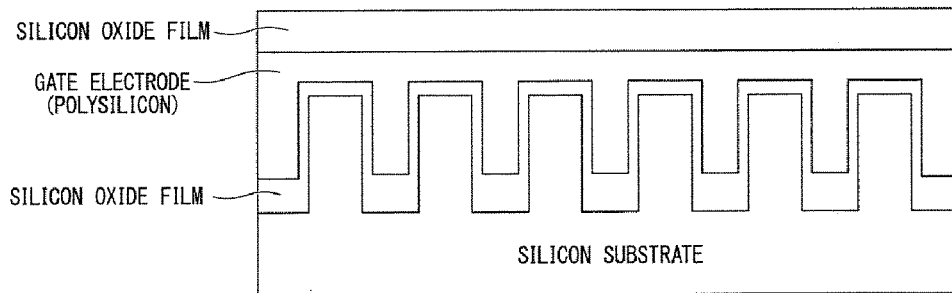
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ABSTRACT

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.

(A) RELATED-ART FINFET STRUCTURE**(B) FIRST EMBODIMENT**