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(71) Applicant: UNIVERSITÉ CATHOLIQUE DE LOUVAIN [BE/BE]; Place de l'Université, 1, 1348 Louvain-la-Neuve (BE).

(72) Inventors: RASKIN, Jean-Pierre; UNIVERSITÉ CATHOLIQUE DE LOUVAIN, Place de l'Université, 1, 1348 Louvain-la-Neuve (BE). RACK, Martin; UNIVERSITÉ CATHOLIQUE DE LOUVAIN, Place de l'Université, 1, 1348 Louvain-la-Neuve (BE).

(74) Agent: DEN BRABER, Gérard Paul; PROXIP, 3, rue de l'Arrivée, 75749 Paris cedex 15 (FR).

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(54) Title: INTEGRATED CIRCUIT DEVICE AND METHOD OF MANUFACTURING THEREOF

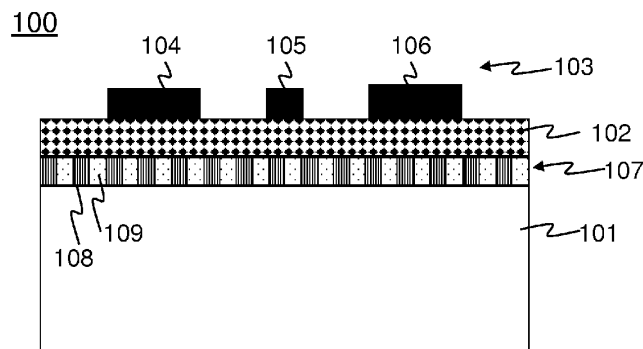


FIG. 1

(57) Abstract: An integrated circuit device (100) comprises a semiconductor substrate (101) having a resistivity of at least 100 $\Omega \cdot \text{cm}$. An electrically insulating layer (102) contacts the semiconductor substrate (101). The electrically insulating layer (102) is susceptible of inducing in the semiconductor substrate (101) a parasitic surface conduction layer that interfaces with the electrically insulating layer (102). An electrical circuit (103) is located on the electrically insulating layer. The electrical circuit (103) comprises a section (105) capable of inducing an electrical field in the semiconductor substrate. The integrated circuit device (100) comprises a depletion-inducing junction (108, 109) of which at least a portion is comprised in the semiconductor substrate (101). The depletion-inducing junction (108, 109) can autonomously induce in the semiconductor substrate (101) a depleted zone that interfaces with a section of the electrically insulating layer (102) that lies in-between two sections (104, 105) of the electrical circuit (103).

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