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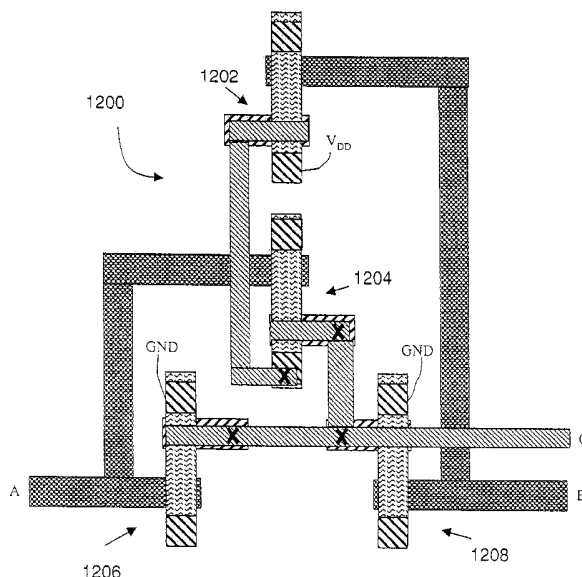
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(54) Title: NANOTUBE-BASED SWITCHING ELEMENTS AND LOGIC CIRCUITS



(57) Abstract: Nanotube-based switching elements and logic circuits. Under one embodiment of the invention, a switching element includes an input node (105), an output node (102), a nanotube channel element (103) having at least one electrically conductive nanotube, and a control electrode (101). The control electrode is disposed in relation to the nanotube channel element to controllably form an electrically conductive channel between the input node and the output node. The channel at least includes the nanotube channel element. The output node is constructed and arranged so that channel formation is substantially unaffected by the electrical state of the output node.

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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 U.S. : 326/104, 112, 101, 136; 257/E29.05, E29.173, E29.255, E29.166

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EAST: NANOTUBE, LOGIC, GATE, SWITCHING, ELEMENT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,759,693 B2 (VOGELI et al.) 6 July 2004 (06.07.2004), see entire document.	1-41
A	US 6,559,468 B1 (KUEKES et al.) 6 may 2003 (06.05.2003), see entire document.	1-41

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