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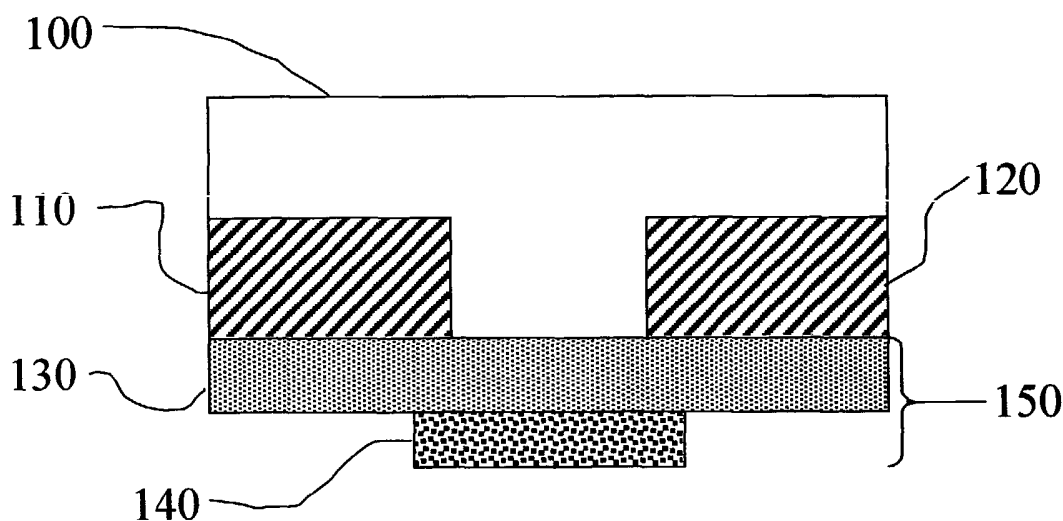
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(54) Title: FIELD EFFECT CHALCOGENIDE DEVICES



(57) Abstract: Multi-terminal field devices comprising a chalcogenide material. The devices include a first terminal, a second terminal and a field effect terminal. Application of a gate signal to the field effect terminal modulates the current passing through the chalcogenide material between the first and second terminals and/or modifies the holding voltage or current of the chalcogenide material between the first and second terminals. The devices may be used as interconnection devices in circuits and networks to regulate current flow between circuit or network elements.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/12351

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : H01L 47/00 US CL : 257/2, 3, 4, 5 According to <u>International Patent Classification (IPC)</u> or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>  Minimum documentation searched (classification system followed by classification symbols) U.S. : 257/2, 3, 4, 5, 66, 629, 636, 673, 615, 777  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3,872,492 A (ROBBINS) 18 March 1975 (18.03.1975) see entire document.	1-4, 9, 10, 12-18, 20, 22-24
Y	US 5,760,462 A (BARRON et al) 02 June 1998 (02.06.1998) see entire document.	1-4, 9, 10, 12-18, 20, 22-24
Y, P	US 2003/0096497 A1 (MOORE et al) 22 May 2003 (22.05.2003) see entire document.	1-4, 9, 10, 12-18, 20, 22-24
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	
"P" document published prior to the international filing date but later than the priority date claimed		
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer <i>[Signature]</i> Jose Dees Telephone No. 571-272-1850	

**INTERNATIONAL SEARCH REPORT**

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**Continuation of B. FIELDS SEARCHED Item 3:**

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