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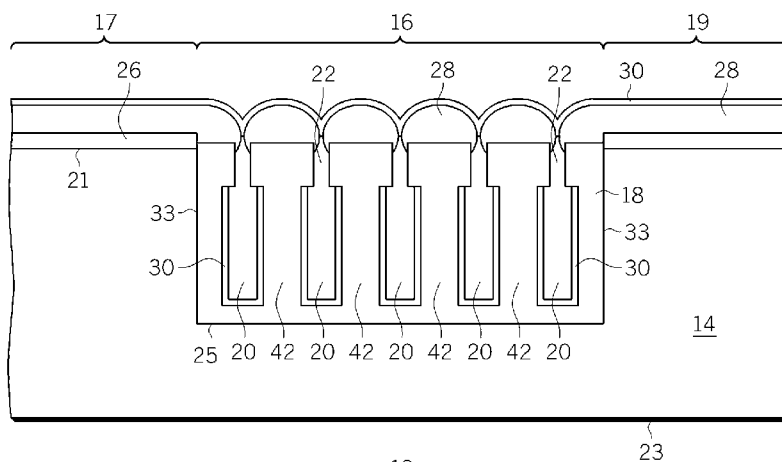


FIG. 1

(57) Abstract: In various embodiments, semiconductor structures and methods to manufacture these structures are disclosed. In one embodiment, a method to manufacture a semiconductor structure includes forming a cavity in a substrate. A portion of the substrate is doped, or a doped material is deposited over a portion of the substrate. At least a portion of the doped substrate or at least a portion of the doped material is converted to a dielectric material to enclose the cavity. The forming of the cavity may occur before or after the doping of the substrate or the depositing of the doped material. Other embodiments are described and claimed.

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**A. CLASSIFICATION OF SUBJECT MATTER****H01L 27/04(2006.01)i, H01L 21/31(2006.01)i**

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

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS (KIPO internal) "trench", "cavity", "void", "inductor", "recess"

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6274920 B1 (PARK, M. et al.) 14 August 2001 See abstract, claims 1-3, figures 1-7.	1-31
A	US 2006/0258037 A1 (FISCHER, F. et al.) 16 November 2006 See abstract, claims 1-22, figures 1-4.	1-31
A	US 2002/0052092 A1 (LACHNER, R.) 02 May 2002 See abstract, claims 1-8, figures 1-17.	1-31
A	JP 2007-273993 A (TOSHIBA CORP.) 18 October 2007 See abstract, claims 1-16, figures 1-45.	1-31

 Further documents are listed in the continuation of Box C. See patent family annex.

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Information on patent family members

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