

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
2 October 2003 (02.10.2003)

PCT

(10) International Publication Number
WO 03/081602 A1

(51) International Patent Classification⁷: **G11C 11/22**,
5/02, H01L 27/01, 23/48

I. [NO/NO]; Jongsstubben 19, N-1337 Sandvika (NO).
GUDESEN, Hans, Gude [NO/BE]; 17 rue Fulton, B-1000
Brussels (BE).

(21) International Application Number: PCT/NO03/00097

(74) Common Representative: **LEISTAD, Geirr, I.**; Thin
Film Electronics ASA, P.O. Box 1872 Vika, N-0124 Oslo
(NO).

(22) International Filing Date: 21 March 2003 (21.03.2003)

(25) Filing Language: English

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

(26) Publication Language: English

(30) Priority Data:
20021466 25 March 2002 (25.03.2002) NO

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

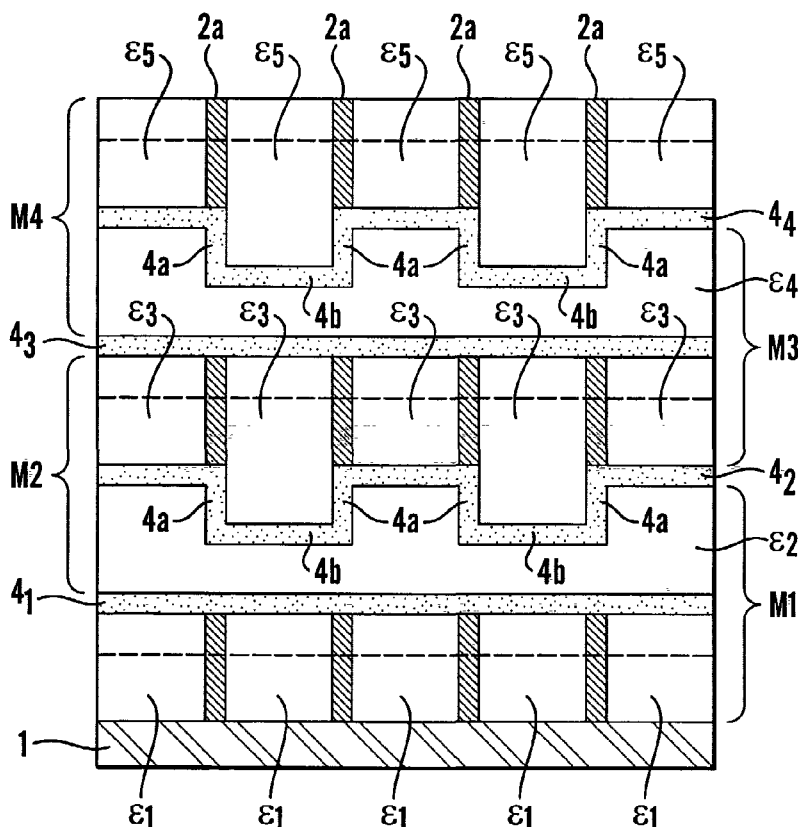
(71) Applicant (*for all designated States except US*): **THIN
FILM ELECTRONICS ASA** [NO/NO]; P.O. Box 1872
Vika, N-0124 Oslo (NO).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LEISTAD, Geirr,**

[Continued on next page]

(54) Title: A VOLUMETRIC DATA STORAGE APPARATUS COMPRISING A PLURALITY OF STACKED MATRIX-ADDRESSABLE MEMORY DEVICES



(57) Abstract: In a volumetric data storage apparatus comprising a plurality of stacked matrix-addressable memory devices (M) electrode means (E) are provided so as to form alternating word and bit line means (WL; BL) for the memory devices, whereby the number of the electrode means is only one more than the number of memory devices. Moreover adjoining electrode means (E_k , E_{k+1}) are arranged in such a manner as to furnish a high proportion of memory cells (6) which can be switched in two or more directions, thus yielding a much higher output when addressed and having an improved signal-to-noise ratio. Each memory device (M) can, due to having a dense electrode arrangement, be provided with an attainable memory cell fill factor approaching unity and half the memory cells can in case be provided switchable in two or more directions, such that the fill factor of these in any case shall approach 0.5. A volumetric data storage apparatus with a very high storage density can hence be obtained, while several of the problems encountered with prior art stacked memory devices are obviated.



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:

— *with international search report*