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 - (71) Applicant (for all designated States except US): WOLFSON MICROELECTRONICS PLC [GB/GB]; Westfield House, 26 Westfield Road, Edinburgh EH11 2QB (GB).
 - (72) Inventors; and
 - (75) Inventors/Applicants (for US only): TRAYNOR, Anthony, Bernard [GB/GB]; 28 Thomson Green, Deer Park, Livingston EH54 8TA (GB). LAMING, Richard, Ian [GB/GB]; 20 Hermitage Drive, Edinburgh EH10 6BY (GB). HOEKSTRA, Tsjerk, Hans [NL/GB]; 7 Turner Avenue, Balerno, Edinburgh EH14 7BS (GB).
 - (74) Agent: REES, Simon, John, Lewis; Haseltine Lake LLP, Redcliff Quay, 120 Redcliff Street, Bristol BS1 6HU (GB).
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(54) Title: MEMS PROCESS AND DEVICE

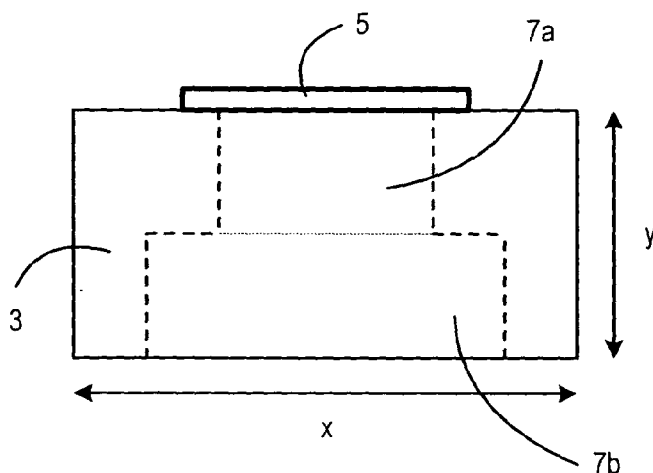


Figure 2A

(57) Abstract: A method of fabricating a micro-electrical-mechanical system (MEMS) transducer comprises the steps of forming a membrane (5) on a substrate (3), and forming a back-volume in the substrate. The step of forming a back-volume in the substrate comprises the steps of forming a first back-volume portion (7a) and a second back-volume portion (7b), the first back-volume portion (7a) being separated from the second back-volume portion (7b) by a step in a sidewall of the back-volume. The cross-sectional area of the second back-volume portion (7b) can be made greater than the cross-sectional area of the membrane (5), thereby enabling the back-volume to be increased without being constrained by the cross-sectional area of the membrane (5). The back-volume may comprise a third back-volume portion. The third back-volume portion enables the effective diameter of the membrane to be formed more accurately.



WO 2009/024762 A3



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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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

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

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 870 482 A (LOEPPERT PETER V [US] ET AL) 9 February 1999 (1999-02-09) figures 13-16c -----	1-59
X	US 2006/157841 A1 (MINERVINI ANTHONY D [US]) 20 July 2006 (2006-07-20) figure 2 -----	1-59
X	US 4 993 072 A (MURPHY PRESTON V [CH]) 12 February 1991 (1991-02-12) figure 1 -----	1-59
X	US 6 667 189 B1 (WANG ZHE [SG] ET AL) 23 December 2003 (2003-12-23) figure 20 -----	1-59

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Name and mailing address of the ISA/
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

McGinley, Colm

INTERNATIONAL SEARCH REPORT

Information on patent family members

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