Abstract: This invention relates to thermally stable piezoelectric polymer foams (ferroelectrets) with high piezoelectric activity for sensing and actuation and a method of fabricating such foams. In embodiments, a carbon dioxide bonding process is used to couple layers of an assembly, wherein the assembly is formed by arranging patterned layers and metallized top and bottom layers.
INTERNATIONAL SEARCH REPORT

PCT/US2014/016717

A. CLASSIFICATION OF SUBJECT MATTER

H01L 41/193(2006.01)i, H01L 41/083(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)
H01L 41/193; H01L 41/04; B32B 3/20; H02N 1/80; H01L 41/13; B32B 7/08; G01H 13/00; H01L 41/00; H01L 41/03

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
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & keywords: multilayer polymer ferroelectret, patterned polymer layer, metallized polymer layer, cavities, carbon dioxide bonding

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Relevant to claim No.</th>
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Further documents are listed in the continuation of Box C. See patent family annex.

# Special categories of cited documents:
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"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

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"A" document member of the same patent family

Date of the actual completion of the international search 22 December 2014 (22.12.2014)

Date of mailing of the international search report 22 December 2014 (22.12.2014)

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