

Title (en)

GAS POROUS POLYMER FILTER AND METHODS OF MAKING IT

Title (de)

GASPORÖSES POLYMERFILTER UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

FILTRE POLYMERE POREUX AU GAZ ET PROCEDES DE FABRICATION DE CELUI_CI

Publication

EP 1771234 A1 20070411 (EN)

Application

EP 04821580 A 20040526

Priority

US 2004016792 W 20040526

Abstract (en)

[origin: WO2005118108A1] The filtration device of the present invention relies on materials and methodologies that achieve the formation of a structural matrix that may later accommodate the addition of other adsorbent materials as opposed to merely binding adsorbent materials together through the use of compression and/or binder materials. The filter device of the present invention relies on (i) a unique method of processing to achieve maximum density of materials, (ii) a polymeric material having a distinct morphology and (iii) a very small micron diameter of the polymeric material to create uniformity. For example, in place of compression to increase density, the materials comprising the filtration device of the present invention are instead vibrated into a mold cavity. Thus, the methodology of the current invention optimizes how all of the materials comprising the filtration device fit together without compaction. The material being processed is vibrated as it is gradually poured into the mold. Once the mold cavity has been filled to a point where it will hold no more material, it is heated and then cooled. In place of an external binder, the structural material adheres to itself as it softens. This results in a tortuous path matrix of pores rather than an absolute pore barrier.

IPC 8 full level

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Citation (search report)

See references of WO 2005118108A1

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WO 0018810 A2 20000406 - TICONA GMBH [DE], et al

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