

Title (en)

Cmos/mems integrated ink jet print head with silicon based lateral flow nozzle architecture and method of forming same

Title (de)

Cmos/mems integrierter Tintenstrahl Druckkopf mit Querflusdüsenarchitektur auf Siliziumbasis und Verfahren zu seiner Herstellung

Title (fr)

Tête d'impression à jet d'encre intégrée Cmos/mems avec une architecture de buse à flux latéral à base de silicone et méthode de fabrication

Publication

EP 1219424 B1 20050209 (EN)

Application

EP 01130222 A 20011219

Priority

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- US 79218801 A 20010222

Abstract (en)

[origin: EP1219424A2] A continuous ink jet print head is formed using a combination of traditional CMOS technology to form the various controlling electrical circuits on a silicon substrate having insulating layer(s) which provide electrical connections to heater elements associated with a nozzle and a MEMS technology for forming ink delivery cavities or channels and bores. A blocking structure is formed in the silicon substrate between an ink channel formed in the silicon substrate and a nozzle bore formed in the insulating layer(s). The blocking structure causes ink in an ink channel to flow around the blocking structure and thereby develop lateral flow components to the liquid entering the bore so that as the stream of fluid emanates from the bore the lateral flow components are a factor in allowing an increased stream deflection under the condition of asymmetric heating. <IMAGE>

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IPC 8 full level

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CPC (source: EP)

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