

Title (en)

Pen-based degassing scheme for ink jet pens

Title (de)

Beseitigung von gelöschtem Gas aus der Tinte in einem Tintenstrahlsystem

Title (fr)

Elimination de gaz dissous d'une encre dans un système à jet d'encre

Publication

EP 0709212 A1 19960501 (EN)

Application

EP 95305643 A 19950814

Priority

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Abstract (en)

In a inkjet print cartridge ink flows from the reservoir around the edge of the silicon substrate before being ejected out of the nozzles. During operation, warm thermal boundary layers of ink form adjacent the substrate and dissolved gases in the thermal boundary layer of the ink form the bubbles. If the bubbles to grow larger than the diameter of subsequent ink passageways these bubbles choke the flow of ink to the vaporization chambers. This results in causing some of the nozzles of the printhead to become temporarily inoperable. The disclosure describes a method of avoiding such a malfunction in a liquid inkjet printing system by providing a primary ink reservoir, transporting ink from the primary reservoir to the vaporization chamber, while passing the liquid ink past a degassing station. A printhead mounted on a carriage is disclosed having a nozzle array and providing an ink vaporization chamber with an activation element therein for expelling a drop of ink from a nozzle. The vaporization chamber is filled with the ink after the ink has passed the degassing station. <IMAGE>

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Citation (search report)

- [X] DE 2441496 B1 19760122
- [A] WO 8304005 A1 19831124 - NCR CO [US]
- [X] PATENT ABSTRACTS OF JAPAN vol. 4, no. 105 (M - 23)<587> 26 July 1980 (1980-07-26)
- [X] PATENT ABSTRACTS OF JAPAN vol. 012, no. 404 (M - 757) 26 October 1988 (1988-10-26)
- [X] PATENT ABSTRACTS OF JAPAN vol. 004, no. 179 (M - 046) 11 December 1980 (1980-12-11)
- [X] PATENT ABSTRACTS OF JAPAN vol. 014, no. 132 (M - 0948) 13 March 1990 (1990-03-13)

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