

Title (en)

Thermal ink jet printhead and method of manufacture.

Title (de)

Thermo-Tintenstrahldruckkopf und Herstellungsverfahren.

Title (fr)

Tête d'impression par jet d'encre thermique et méthode de fabrication.

Publication

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Application

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Priority

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Abstract (en)

A thermal ink jet printhead and method of manufacture wherein an ink feed opening (31) in a thin film substrate (10) is axially aligned with a central opening in a heater resistor (24, 26) disposed on the substrate. The ink feed opening (31) is also aligned with a firing chamber (30) formed in a barrier layer (28) disposed on the substrate and above and surrounding the heater resistor (24, 26), and is further aligned with an orifice opening (34) in an orifice plate (32) disposed on the barrier layer (28). This novel geometrical arrangement is operative to enhance the printhead ink ejection efficiency and to minimize cavitation wear on the heater resistors therein. In addition, the above axial symmetry may be provided by semi-circular heater resistors (24, 26), rectangularly shaped heater resistors (54, 56), or heater resistors of other shapes (36, 66) which are symmetrically arranged around the above firing chamber for the TIJ printhead. <IMAGE>

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