

Title (en)

Ink jet recording head and ink jet recording apparatus comprising the same

Title (de)

Tintenstrahlaufzeichnungskopf und diesen enthaltendes Tintenstrahlaufzeichnungsgerät

Title (fr)

Tête d'enregistrement à jet d'encre et appareil d'enregistrement à jet d'encre comprenant cette tête

Publication

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Application

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Abstract (en)

[origin: EP1277583A2] The invention relates to an ink jet recording head comprising a nozzle forming member provided with a plurality of nozzle orifices for jetting ink; a channel forming substrate provided with a plurality of pressure generating chambers communicated with the associated nozzle orifices, one face of which is bonded to the nozzle forming member; a plurality of piezoelectric elements provided on a face of the channel forming substrate which is opposed to the face bonded to the nozzle forming member with a vibration plate in between for changing the associated pressure generating chambers in volume thereof; and a sealing member bonded to the face of the channel forming substrate on which the piezoelectric elements are provided, the sealing member having walls (27) for defining a space in an area facing the piezoelectric elements such an extent that motion of the respective piezoelectric elements is exhibited while sealing the space hermetically, wherein one of the walls of the sealing member is disposed on each of the piezoelectric elements.

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Cited by

EP1164015A1; CN104044347A; GB2513466A; CN109484032A; EP3456537A3; US6802597B2; EP1145853A1; KR100498851B1; CN104339869A; US10682854B2; US8944567B2; US6481834B2; WO2011023551A1; DE102009028909A1; US6547373B2; US7153459B2; JP2013222743A

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