

Title (en)

Anodic bonding method and method of producing an inkjet head using the bonding method.

Title (de)

Anodisches Bindeverfahren und Verfahren zur Herstellung eines Tintenstrahlkopfes unter Verwendung des Bindeverfahrens.

Title (fr)

Procédé de liaison anodique et procédé de fabrication d'une tête à jet d'encre utilisant ce procédé de liaison.

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Application

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Priority

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Abstract (en)

Disclosed is a method of anodically bonding a silicon substrate (1) to a glasssubstrate (2) wherein the thickness of at least a portion (5) of the silicon substrate (1) is less than the thickness of the glass substrate (2). The method comprises establishing a suitable bonding temperature, heating the substrates to the bonding temperature and applying a voltage between the substrates for a predetermined time. In order to prevent reduced thickness portions (5) of the first substrate (1) from getting warped, the bonding temperature is calculated such that the contraction of the silicon substrate (1) while cooling from the selected bonding temperature to room temperature is equal to or greater than the contraction of the glass substrate (2). The preferred use of this method for manufacturing inkjet heads having electrostatic actuators with such reduced thickness portions (5) serving as vibration plates of the actuators is described. <IMAGE>

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