

Title (en)

CONTINUOUS EJECTION SYSTEM INCLUDING COMPLIANT MEMBRANE TRANSDUCER

Title (de)

KONTINUIERLICHES AUSSTOSSSYSTEM MIT WANDLER MIT NACHGIEBIGER MEMBRAN

Title (fr)

SYSTÈME D'ÉJECTION CONTINUE COMPRENANT UN TRANSDUCTEUR À MEMBRANE DÉFORMABLE

Publication

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Application

EP 12719833 A 20120416

Priority

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Abstract (en)

[origin: WO2012145260A1] A continuous liquid ejection system includes a substrate (110) and an orifice plate 315) affixed to the substrate. Portions of the substrate define a liquid chamber (310). The orifice plate includes a MEMS transducing member. A first portion of the MEMS transducing member is anchored to the substrate. A second portion of the MEMS transducing member extends over at least a portion of the liquid chamber and is free to move relative to the liquid chamber. A compliant membrane (320) is positioned in contact with the MEMS transducing member. A first portion of the compliant membrane covers the MEMS transducing member and a second portion of the compliant membrane is anchored to the substrate. The compliant membrane includes an orifice (135). A liquid supply provides a liquid to the liquid chamber under a pressure sufficient to eject a continuous jet of the liquid through the orifice located in the compliant membrane of the orifice plate. The MEMS transducing member is selectively actuated to cause a portion of the compliant membrane to be displaced relative to the liquid chamber to cause a drop of liquid to break off from the liquid jet.

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