

Title (en)

THERMAL MEMBRANE SENSOR AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

THERMISCHER MEMBRANSENSOR UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

CAPTEUR THERMIQUE A MEMBRANE ET SON PROCEDE DE PRODUCTION

Publication

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Application

EP 98963367 A 19981123

Priority

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- DE 19752208 A 19971125

Abstract (en)

[origin: DE19752208A1] The invention relates to a method for producing a membrane sensor, especially a thermal membrane sensor, over a silicon substrate (1). A thin layer (4) comprised of silicon carbide or silicon nitride is deposited over an area (2) made of porous silicon which is configured in the surface of the substrate (1). Openings (5, 7) are then formed in said silicon carbide or silicon nitride layer (4), said layer extending to the porous silicon layer (2), by means of a dry etching method. Afterwards, semiconductor and circuit-board structures (6) are implanted in the upper surface of the membrane layer (4) by means of lithographic steps and the sacrificial layer (2) comprised of porous silicon is then removed by a suitable solvent, for example ammoniac. As a result, a cavity (8) is produced underneath the membrane layer (4) which thermally decouples the sensor membrane from the substrate (1).

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IPC 8 full level

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