

Title (en)

METHOD FOR PRODUCING GLASS-SILICON-GLASS SANDWICH STRUCTURES

Title (de)

VERFAHREN ZUM HERSTELLEN VON GLAS-SILIZIUM-GLAS SANDWICHSTRUKTUREN

Title (fr)

PROCEDE DE PRODUCTION DE STRUCTURES SANDWICH VERRE-SILICIUM-VERRE

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Application

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Abstract (en)

[origin: WO0238490A2] The invention relates to a method for producing glass-silicon-glass sandwich structures which are connected irreversibly and in such a way that they are adjusted to correspond. Said structures consist of a bottom and a top glass substrate (2, 3) and a silicon substrate (1) in-between. At least one of the substrates (1; 2; 3) is provided with 3D depth structuring. The aim of the invention is to provide a low-cost production method, especially with a view to mass production of glass-silicon-glass sandwich structures. To this end, the silicon substrate (1) is irreversibly connected to one of the glass substrates (2; 3) before or after the 3D depth structuring. The bond is reduced to a predetermined end thickness from the glass and/or the silicon side by means of grinding, etching and polishing methods and the remaining silicon surface is then connected to a second glass substrate (3; 2) by anodic bonding.

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