

**PROCESS FOR TRANSFERRING A THIN LAYER ONTO A SUPPORT SUBSTRATE
HAVING DIFFERENT COEFFICIENTS OF THERMAL EXPANSION**

ABSTRACT

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Process for transferring a thin layer (3) consisting of
a first material onto a support substrate (7) consisting of a
second material, the first and the second materials having
10 different coefficients of thermal expansion. The process for
transferring the thin layer (3) includes the provision of a
donor substrate (1) composed of the assembly of a thick layer
formed from the first material (1a) and from a handling
substrate (1b), the coefficient of thermal expansion of the
15 handling substrate (1b) being similar to that of the support
substrate (7) and the donor substrate (1) having a main face
(4) on the thick layer (1a) side; the introduction of light
species into the thick layer (1a) to generate an embrittlement
plane (2) therein and to define the thin layer (3) between the
20 embrittlement plane (2) and the main face (4) of the donor
substrate (1); the assembly of the main face (4) of the donor
substrate with one face (6) of the support substrate (7);
detachment of the thin layer (3) from the embrittlement plane
(2), the detachment comprising the application of a heat
25 treatment.

Figure 1