

ABSTRACT**PROCESS FOR TRANSFERRING A USEFUL LAYER TO A CARRIER SUBSTRATE**

The invention relates to a process for transferring a useful layer to a carrier substrate, comprising the following steps:

- a) providing a donor substrate including a buried weakened plane, the useful layer being delimited by a front face of the donor substrate and the buried weakened plane;
- b) providing a carrier substrate;
- c) joining the donor substrate, by its front face, to the carrier substrate along a bonding interface so as to form a bonded structure;

- d) annealing the bonded structure in order to increase the level of weakening of the buried weakened plane,

the transfer process being noteworthy in that:

- a predetermined stress is applied to the buried weakened plane in annealing step d) for a period of time, the predetermined stress being chosen so as to initiate the splitting wave once a given level of weakening has been reached;
- at the end of the period of time, the given level of weakening having been reached, the predetermined stress causes the initiation and the self-sustained propagation of the splitting wave along said buried weakened plane, resulting in the useful layer being transferred to the carrier substrate.

Fig. 2