

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 apply a weakening thermal budget thereto and to bring the buried weakened plane to a defined level of weakening;
- e) initiating a splitting wave in the buried weakened plane by applying a stress to the bonded structure, the splitting wave propagating in a self-sustained manner along the buried weakened plane in order to result in the useful layer being transferred to the carrier substrate.

The transfer process is noteworthy in that the splitting wave is initiated when the bonded structure is subjected to a temperature between 150°C and 250°C.

Fig. 2