

PROCESS FOR PRODUCING A STACKED STRUCTURE

ABSTRACT

The invention relates to a process for producing a stacked structure comprising a receiver substrate and a surface film, the process comprising the following steps:

- a) providing a carrier substrate and an initial substrate, each having a front face and a back face,
- b) forming a buried weakened plane in the carrier substrate or in the initial substrate, by implanting light ions through the front face of either of said substrates,
- c) joining the carrier substrate and the initial substrate via their respective front faces,
- d) mechanically and/or chemically thinning the initial substrate via its back face in order to form a donor substrate comprising a donor layer originating from the initial substrate and arranged on the carrier substrate, and the buried weakened plane present in the carrier substrate or in the donor layer, the donor substrate having a front face on the side of the donor layer and a back face on the side of the carrier substrate,
- e) providing a receiver substrate having a front face and a back face,
- f) joining the donor substrate and the receiver substrate via their respective front faces,
- g) separating along the buried weakened plane, so as to form the stacked structure comprising the receiver substrate and the surface film including all or part of the donor layer.

Fig. 2g