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ABSTRACT

PROCESS FOR TRANSFERRING THIN SEMICONDUCTOR LAYERS AND PROCESS FOR OBTAINING A DONOR WAFER FOR SUCH A TRANSFER PROCESS

A process for transferring successive thin layers from a semiconductor material of a donor wafer to a receiving wafer comprises the following steps:

(a) assembling a bulk slice, consisting of semiconductor material, and a support in order to form the donor wafer with a donor layer of the said semiconductor material and a support layer;

(b) creating a region of weakness in the donor layer;

(c) bonding the donor wafer to the receiving wafer via the free side of the donor layer;

(d) effecting a separation in the region of weakness, a thin layer of the semiconductor material thus being transferred from the donor wafer to the receiving wafer; and

(e) repeating operations (b) to (d) without the support layer of the donor wafer being breached.

A process for obtaining a donor wafer is also provided.