

PROCESS FOR TRANSFERRING A THIN LAYER TO A CARRIER SUBSTRATE
PROVIDED WITH A CHARGE-TRAPPING LAYER

ABSTRACT

The invention relates to a process for transferring a thin layer (5) to a carrier substrate (1) comprising the preparation of a carrier substrate (1) using a preparation process comprising the provision of a base substrate (3) that has, on a main face, a charge-trapping layer (2) and the formation of a dielectric layer (4) having a thickness greater than 200 nm on the charge-trapping layer (2). The formation of the dielectric layer (4) simultaneously implements the deposition and the ion sputtering of the dielectric layer. The transfer process also comprises the joining, by means of molecular bonding and without preparing the free face of the dielectric layer (4) by polishing, of a donor substrate to the dielectric layer (4) of the carrier substrate (1), the donor substrate featuring a weakened plane defining the thin layer (5). The process lastly comprises the splitting of the donor substrate at the weakened plane so as to release the thin layer (5) and transfer it to the carrier substrate (1).

Fig. 1