

Abstract**PROCESS FOR FABRICATING A SUBSTRATE
FOR A FRONT-SIDE IMAGE SENSOR**

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The invention relates to a process for fabricating a substrate for a front-side image sensor, comprising:

- providing a donor substrate (30) comprising a semiconductor layer (3a) to be transferred;
- 10 - providing a semiconductor carrier substrate (1);
- bonding the donor substrate (30) to the carrier substrate (1), an electrically insulating layer (2) being at the bonding interface;
- transferring the semiconductor layer (3a) to the carrier substrate (1);
- implanting gaseous ions (40) into the carrier substrate (1) through the transferred
- 15 semiconductor layer (3a) and the electrically insulating layer (2);
- after said implantation, epitaxially growing an additional semiconductor layer (3b) on top of the transferred semiconductor layer (3a).

Fig. 1A