METHOD OF MANUFACTURING SOI SUBSTRATE

ABSTRACT OF THE DISCLOSURE

The method of one embodiment of the present invention includes: a first step of irradiating a bond substrate with ions to form an embrittlement region in the bond substrate; a second step of bonding the bond substrate to a base substrate with an insulating layer therebetween; a third step of splitting the bond substrate at the embrittlement region to form a semiconductor layer over the base substrate with the insulating layer therebetween; and a fourth step of subjecting the bond substrate split at the embrittlement region to a first heat treatment in an argon atmosphere and then a second heat treatment in an atmosphere of a mixture of oxygen and nitrogen to form a reprocessed bond substrate. The reprocessed bond substrate is used again as a bond substrate in the first step.

Figure 2