PIEZOELECTRIC-ON-INSULATOR (POI) SUBSTRATE AND METHOD FOR PRODUCING A PIEZOELECTRIC-ON-INSULATOR (POI) SUBSTRATE

Abstract

The invention relates to a piezoelectric-on-insulator (POI) substrate (100) comprising a support substrate (102), in particular a silicon-based substrate, a piezoelectric layer (108), in particular a layer of lithium tantalate (LTO) or lithium niobate (LNO), a dielectric layer (106), in particular a layer of silicon oxide, sandwiched between the piezoelectric layer (108) and the support substrate (102), and a trapping structure (104) sandwiched between the dielectric layer (106) and the support substrate (102). The trapping structure (104) comprises at least two trapping layers (104a, 104b) which are based on different materials. The invention also relates to a method for producing a piezoelectric-on-insulator (POI) substrate.

Fig. 1