SUBSTRATE FOR GROWING A III-V NITRIDE EPILAYER AND METHOD FOR SELECTING THE SAME

Abstract

A method for selecting a substrate to grow a III-V nitride epilayer and a semiconductor device are provided. The method begins by selecting a physical property and a set of existing substrates to analyse. Thereafter, the physical property is determined for each of the set of existing substrates and analysed to establish a criterion for selecting the substrate. The physical property of a potential substrate is then determined to ascertain whether the potential substrate satisfies the criterion for selecting the substrate. The semiconductor device comprises a substrate selected from the group consisting of $SeCoO_3$, $SeNiO_3$, $SeMnO_3$, $TeCoO_3$, $TeNiO_3$, $TeMnO_3$, $SeZnO_3$, $SeCuO_3$ and $SeMgO_3$, and a III-V nitride epilayer provided on the substrate.

Figure 2