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(54) **METHOD FOR MANUFACTURING A GROWTH SUBSTRATE INCLUDING MESAS OF VARIOUS DEFORMABILITIES, BY ETCHING AND ELECTROCHEMICAL POROSIFICATION**

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(57) **ABSTRACT**

A method for manufacturing a growth substrate adapted to produce by epitaxy a matrix of diodes based on InGaN, including the following steps of:

producing a crystalline stack including, from a conductive buffer layer: a lower layer based on doped GaN; then a separation intermediate layer, based on InGaN; then an upper layer (**14**) based on AlGaN;

producing mesas of three categories M**1**, M**2**, M**3**, by localised etching of the crystalline stack;

eliminating, by etching, the upper portion of at least the mesas M**3**, the upper portion of the mesas M**1** being preserved; then

non-photo-assisted electrochemically porosifying the lower portions of only the mesas M**1** and M**3**, the lower portion of the mesas M**2** being non-porosified.