A B S T R A C T

The invention concerns a method of producing a thin layer (104) of a semiconductor material on a substrate (107) termed the final substrate, comprising:

- forming said layer of semiconductor material on a support termed the initial support (101);
- assembling said thin layer (104) and said final substrate (107) by metal bonding;
- mechanically separating the initial support (101) from the thin layer (107).

An intermediate substrate is obtained which can be used to fabricate a variety of components such as light-emitting diodes or laser diodes. This method can produce a thin layer on a final substrate from a starting substrate which can be recycled by dint of non destructive mechanical release.