



162162

METHODS OF LASER ANNEALING A SEMICONDUCTOR LAYER AND SEMICONDUCTOR DEVICES PRODUCED THEREBY

5 The present invention relates methods of laser annealing a semiconductor layer and
semiconductor devices produced thereby. The method includes forming a nitrogen
doped layer on the semiconductor layer (200), the nitrogen doped layer having a
nitrogen concentration of at least 3×10^{20} atoms/cc, irradiating a first area of the
nitrogen doped layer in a low oxygen environment with a laser beam (202) and
irradiating a second area of the nitrogen doped layer in a low oxygen environment
10 with a laser beam (204), a part of the second area overlapping with a part of the first
area in a product region.

Figure 2



G00002