

METHOD AND APPARATUS FOR IRRADIATING A SEMICONDUCTOR MATERIAL SURFACE BY LASER ENERGY.

Abstract:

The present invention is related to a method for irradiating semiconductor material comprising: selecting a region of a semiconductor material layer surface, the region having a region size; irradiating the region of the semiconductor material layer surface with an excimer laser having a beam spot size; and adjusting the beam spot size; characterized in that adjusting the beam spot size comprises variably matching the beam spot size to the selected region size. Further the present invention is related to an apparatus for irradiating semiconductor material comprising: an excimer laser for irradiating a selected region of a semiconductor layer surface, the laser having a laser beam spot size to the selected region having a region size; and a means for adjusting the laser beam spot size; characterized in that the means for adjusting the laser beam spot size are adapted for variably matching the laser beam spot size to the selected region size.

(FIG. 3)