

ABSTRACT

The present invention is related to an apparatus for irradiating semiconductor material comprising:

- a laser generating a primary laser beam;
 - an optical system;
 - and a means for shaping the primary laser beam, comprising a plurality of apertures for shaping the primary laser beam into a plurality of secondary laser beams;
- characterized in that the shape and/or size of the individual apertures corresponds to the shape and/or size of a common region of a semiconductor material layer to be irradiated, and that the optical system is adapted for superposing the secondary laser beams to irradiate said common region.

Further, the present invention is related to the use of such an apparatus in semiconductor device manufacturing.

[Figure 1]