27. A method of annealing a semiconductor substrate having a patterned surface with gaps between IC chips formed therein, and a melt temperature, comprising:

scanning at ~~leat~~ least one first laser beam over the patterned surface, the at least one first laser beam configured to ~~hear~~ heat the patterned surface to a non-melt temperature $T_{nonmelt}$ that is within ~~about~~ 400°C of the melt temperature; and

scanning a least one second laser beam over the patterned surface and relative to the first laser beam, the at least one second laser beam being pulsed and configured to heat the patterned surface from the non-melt temperature up to the melt temperature, including stitching adjacent scans of the at least one first and the at least one second laser beams within the gaps between the IC chips.