THERMAL ANNEAL PROCESS FOR STRAINED-SI DEVICES

ABSTRACT

[0029] A method is disclosed for forming a semiconductor device using strained silicon. After forming a first substrate material with a first natural lattice constant on a device substrate and a second substrate material with a second natural lattice constant on the first substrate material, a channel, source and drain regions of a field effective transistor are further defined using the first and second substrate materials. After implanting one or more impurity materials to the source and drain regions, and the transistor goes through an annealing process using a high speed heat source other than a Tungsten-Halogen lamp.

(FIG. 1)