Semiconductor Structure Having Selective Silicide-Induced Stress and a Method of Producing Same

ABSTRACT OF THE DISCLOSURE

The channel of a MOSFET is selectively stressed by selectively stressing the silicide layers on the gate electrode and the source/drain. Stress in the silicide layer is selectively produced by orienting the larger dimensions of the silicide grains in a first direction and the smaller dimensions in a second, perpendicular direction, with one of the directions being parallel to the direction of carrier movement in the channel and the other direction being perpendicular thereto.

(FIG. 1)