# GETTERING OF IMPURITIES BY FORMING A STABLE CHEMICAL COMPOUND

## Abstract of the Disclosure

Reactor atoms (22) are introduced into a silicon substrate (10) by ion implantation to combine with metal impurities (18) to form stable chemical compounds (24). The stable compounds do not decompose and release the metal impurities during subsequent processing steps. Such metal impurities are detrimental to semiconductor devices formed in active regions (16, 17) in the silicon substrate. The reactor atoms such as sulfur are chosen to be substantially immobile in silicon at normal semiconductor processing temperatures. The metal impurities such as iron are effectively gettered to increase performance and reliability of semiconductor devices formed in the active regions (16, 17) in the silicon substrate.

FIG. 1 accompanies this abstract.