METHOD OF FORMING SOURCE AND DRAIN OF FIELD-EFFECT-TRANSISTOR AND STRUCTURE THEREOF

ABSTRACT

Embodiments of the invention provide a method of forming a field-effect-transistor (FET). The method includes implanting one or more n-type dopants to create one or more implanted regions with at least a portion of the implanted regions being designated as regions for forming source and drain extensions of the FET; activating the implanted regions; etching with a chlorine based etchant to create openings in the implanted regions, and forming the source and drain extensions by epitaxially growing embedded silicon germanium in the openings. Structure of a semiconductor field-effect-transistor made thereof is also provided.

Figure 1