

DOPANT COMPOSITIONS FOR ION IMPLANTATION

Abstract

The present invention relates to an improved composition for ion implantation. The composition comprises a dopant source and an assistant species wherein the assistant species in combination with the dopant gas produces a beam current of the desired dopant ion. The criteria for selecting the assistant species is based on the combination of the following properties: ionization energy, total ionization cross sections, bond dissociation energy to ionization energy ratio, and a certain composition.

[Figure 1]