model calculations to be 760oC [2]. Alloys
technique [3]. Since the first organometalic
forts to obtain alloy compositions inside the
0.64<x<1. Shin et al. [6] reported MOCVD
nd Cherng demonstrated the successful

l sources, especially the group V hydrides
n AsH3. It has a decomposition
has a convenient vapor pressure for MOCVD
nds and alloys by MOCVD, it is not
[10]. In additions, high carbon
e been devoted to developing new Sb
th of Sb containing compounds by MOCVD
y with no serious impurity contamination.
c source one can decrease the growth
corporporation of native defects foreign
s like N(CH3)2, aziridine (HN(CH2)2) and
TEGa) forming volatile molecules and
wledge, there are no reports on the growth
alloy using these sources with the
of solid immiscibility were obtained.

b, and Shin [6] using TBAs and TBDMSb,
ity gap without phase separation when
rently be trapped in the solid by the next
are immobilized by being covered over

ues of input V/III ratio approximately

28oC, respectively, were the precursors.
for Hall effect measurements. The V/III
morphology at each V/III ratio (between
[TDMASb]/([TDMAAs + TDMASb])
The substrates were first degreased by b
for 5 minutes, then chemically etched u
3 : 1 : 1) for 2 min. Finally the substrate
reactor. In order to eliminate carbon-oxy
was raised to the final growth temperatu
The Sb-solid composition onto GaAsSb la
were examined using Scanning Electron
geometry. Gold (Au) was used to form th
varied between 3.2 and 355 mT.

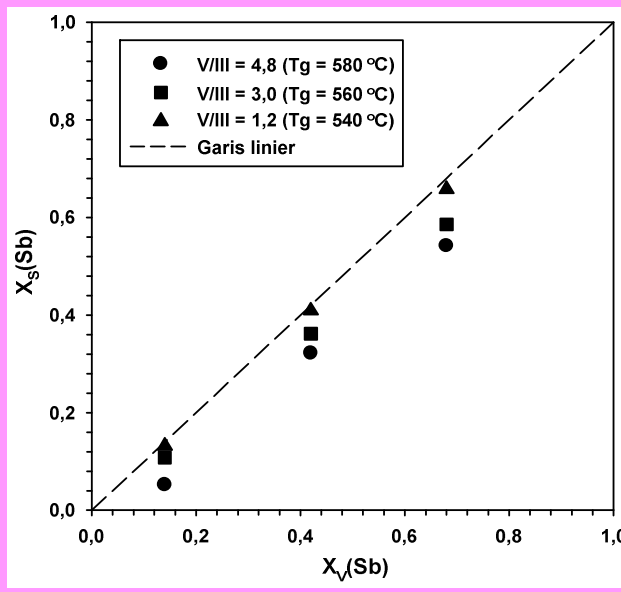

Fig. 1. Sb distribution coefficient for GaAs1-xSbx layers grown on GaAs substrate