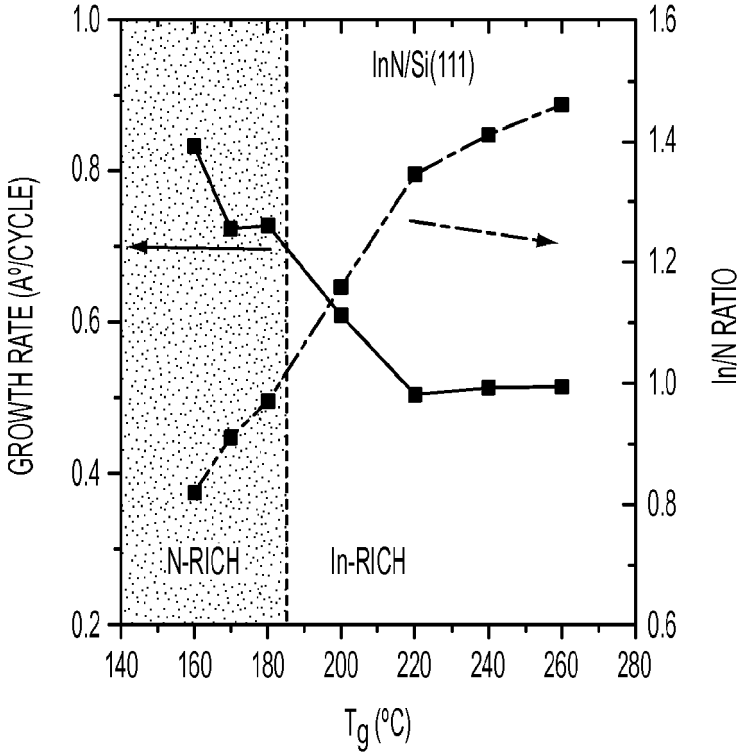

InN/Si(111)
N-RICH
In-RICH
GROWTH RATE (A°/CYCLE)
In/N RATIO
T_g (°C)
1.0
0.8
0.6
0.4
0.2
1.6
1.4
1.2
1.0
0.8
0.6
140
160
180
200
220
240
260
280

FIG. 1

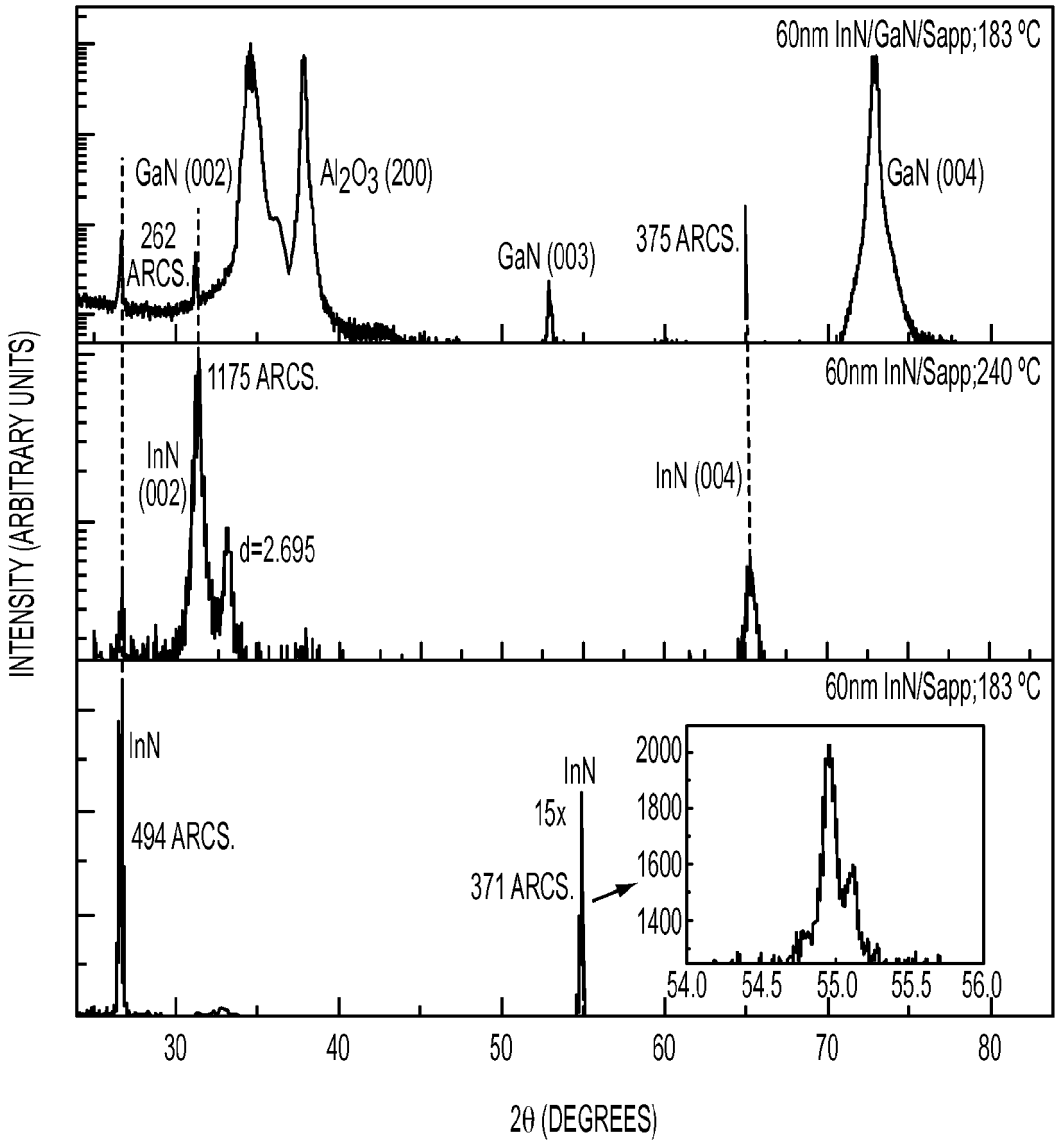

60nm InN/GaN/Sapp;183 °C
GaN (002)
Al2O3 (200)
GaN (004)
262 ARCS.
GaN (003)
375 ARCS.
60nm InN/Sapp;240 °C
1175 ARCS.
InN (002)
d=2.695
InN (004)
60nm InN/Sapp;183 °C
InN
494 ARCS.
InN
15x
371 ARCS.
2000
1800
1600
1400
54.0
54.5
55.0
55.5
56.0
INTENSITY (ARBITRARY UNITS)
30
40
50
60
70
80
2θ (DEGREES)

FIG. 2

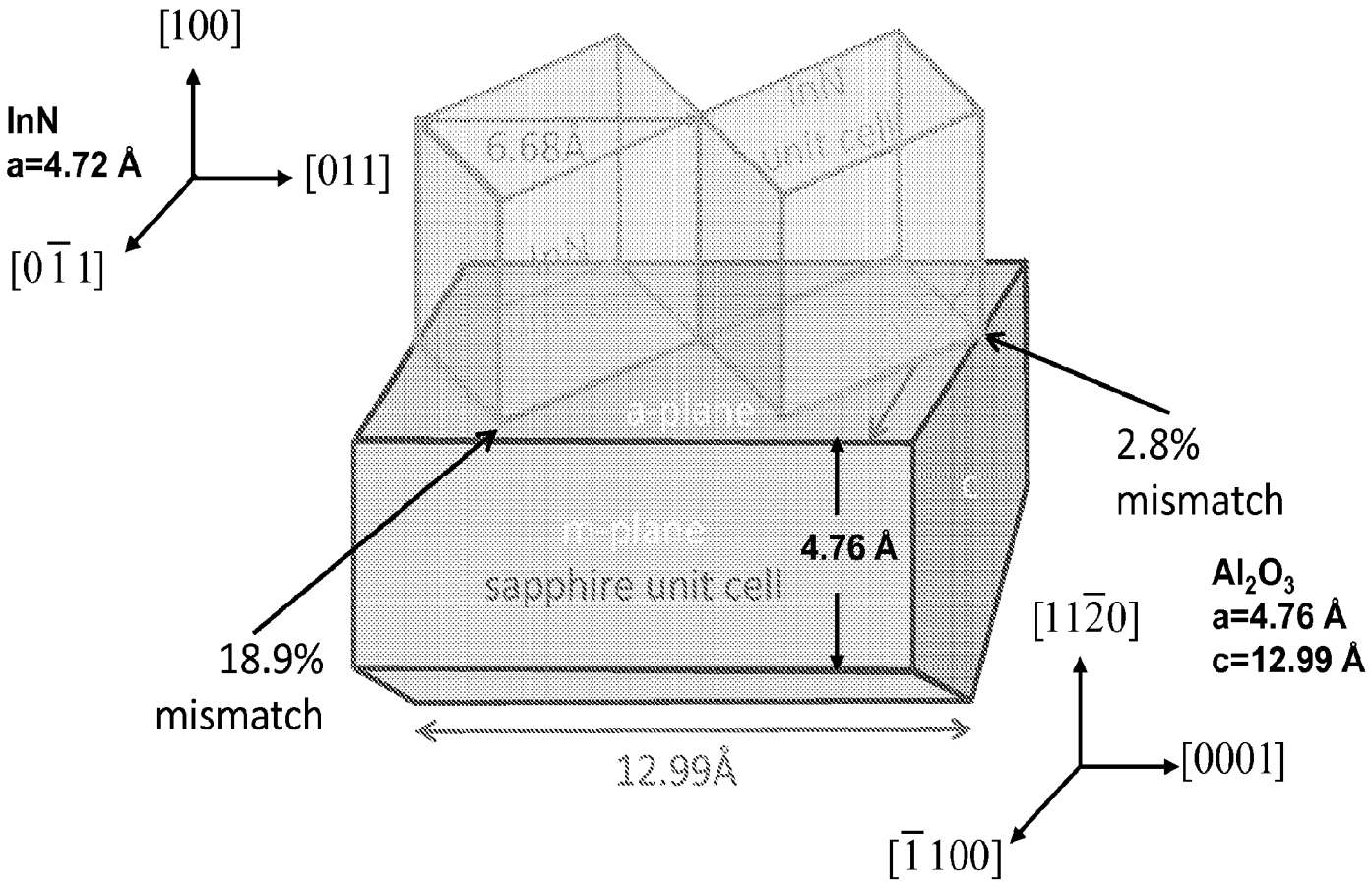

[100]
InN
a=4.72 Å
[011]
[0$\bar{1}$1]
6.68Å
InN
unit cell
InN
a-plane
m-plane
sapphire unit cell
4.76 Å
2.8%
mismatch
18.9%
mismatch
12.99Å
Al_2O_3
a=4.76 Å
c=12.99 Å
[11$\bar{2}$0]
[0001]
[$\bar{1}$100]

FIG. 3

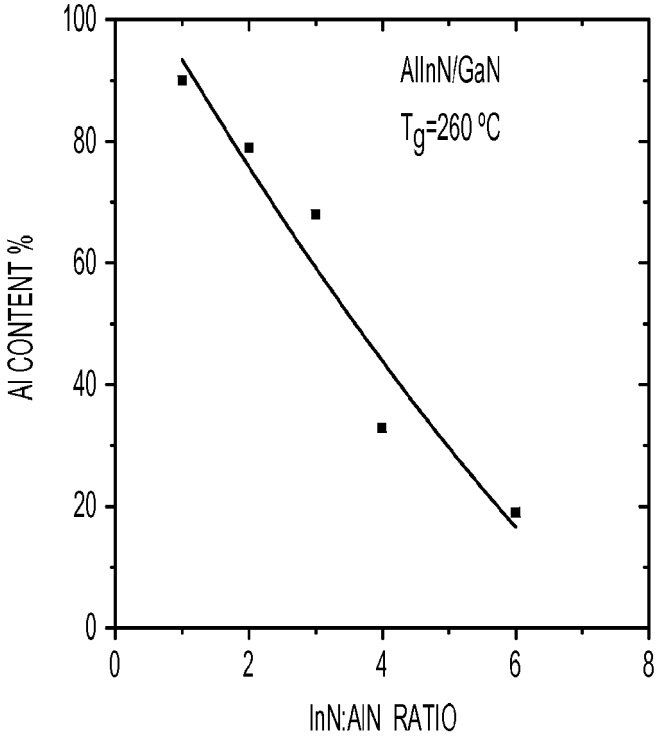

AlInN/GaN
T_g=260 °C
Al CONTENT %
InN:AlN RATIO
100
80
60
40
20
0
0
2
4
6
8

FIG. 4