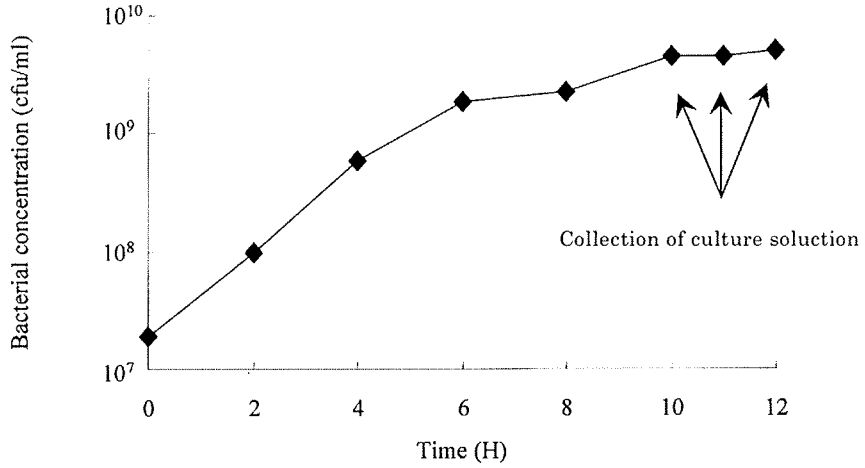

Bacterial concentration (cfu/ml)
$10^{10}$
$10^{9}$
$10^{8}$
$10^{7}$
0
2
4
6
8
10
12
Time (H)
Collection of culture soluction

FIG. 1

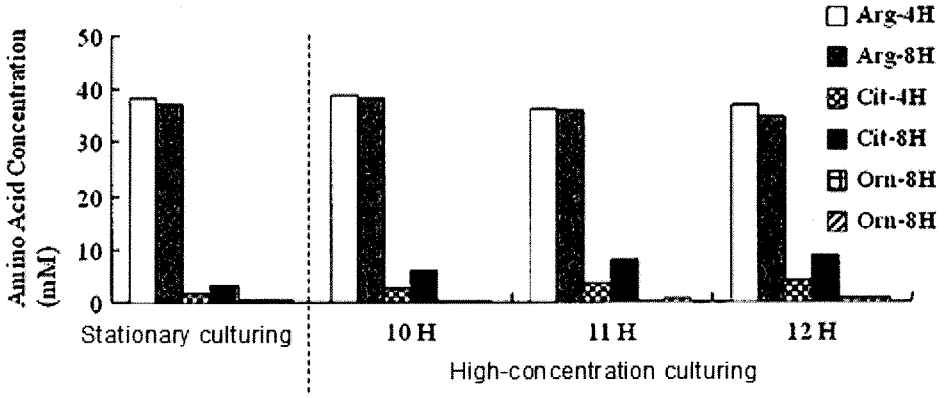

Amino Acid Concentration (mM)
50
40
30
20
10
0
Stationary culturing
10 H
11 H
12 H
High-concentration culturing
Arg-4H
Arg-8H
Cit-4H
Cit-8H
Orn-8H
Orn-8H

FIG. 2