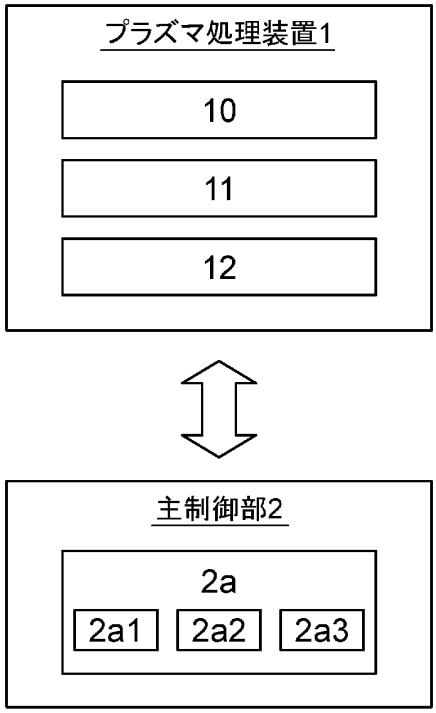
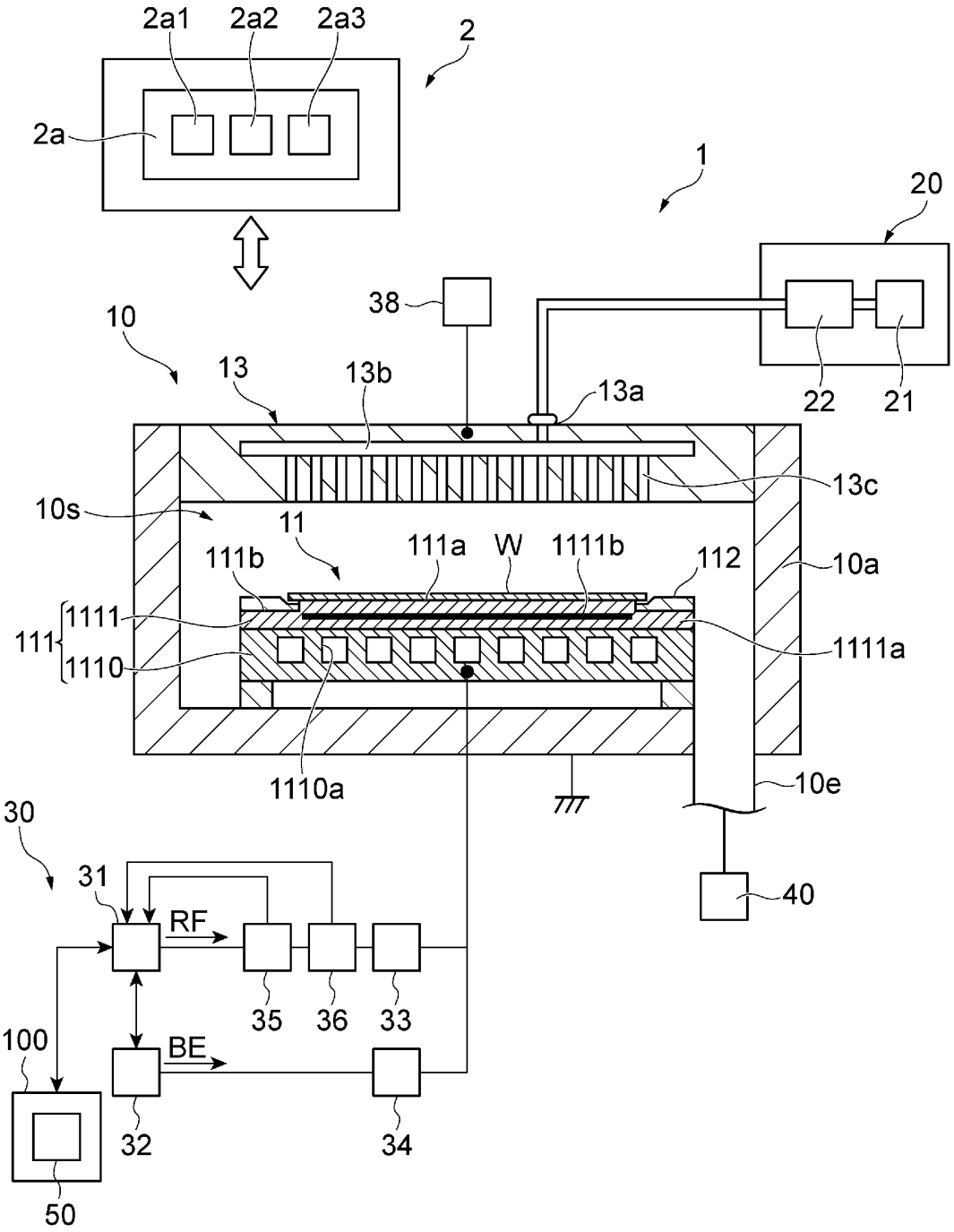
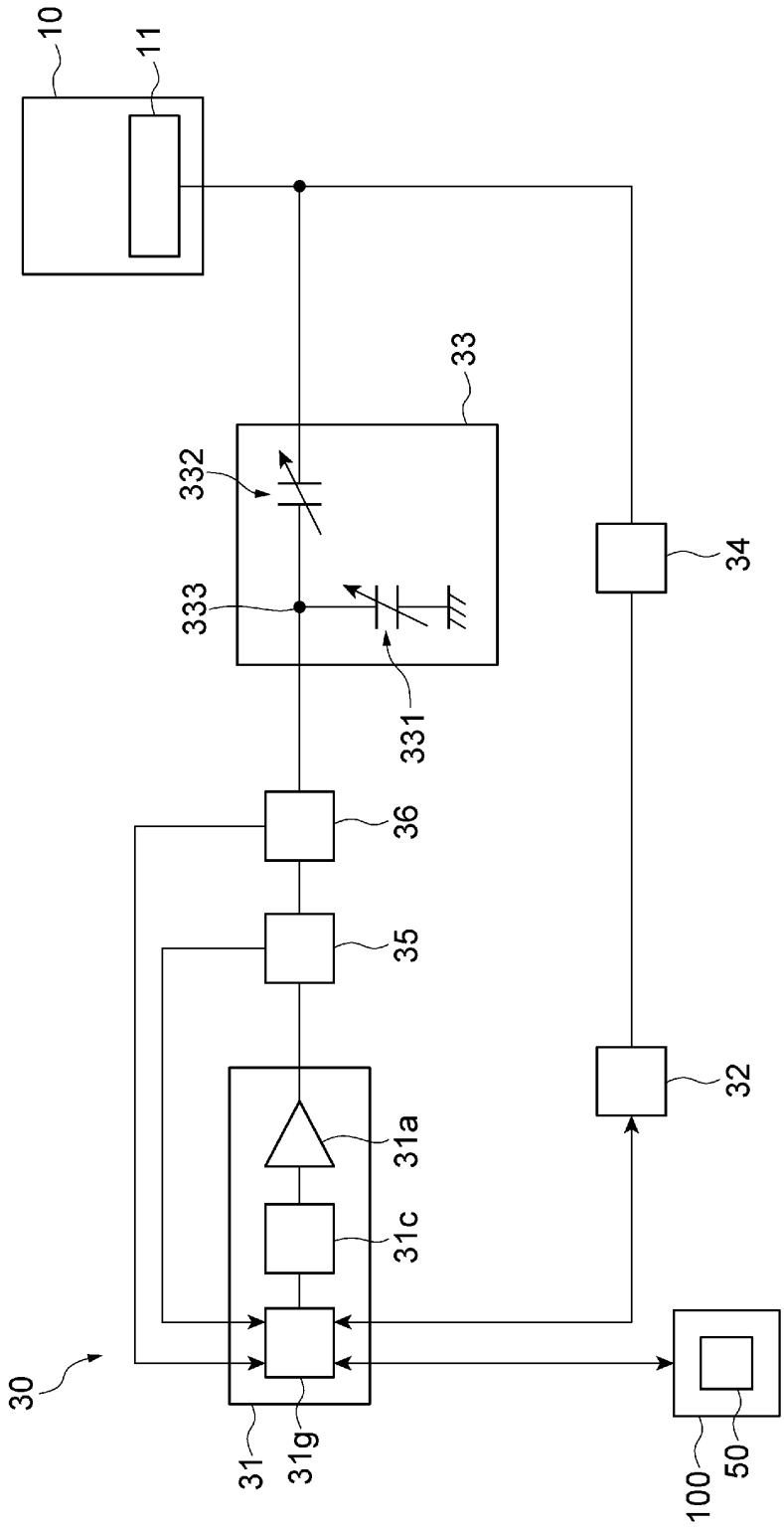
[図1]



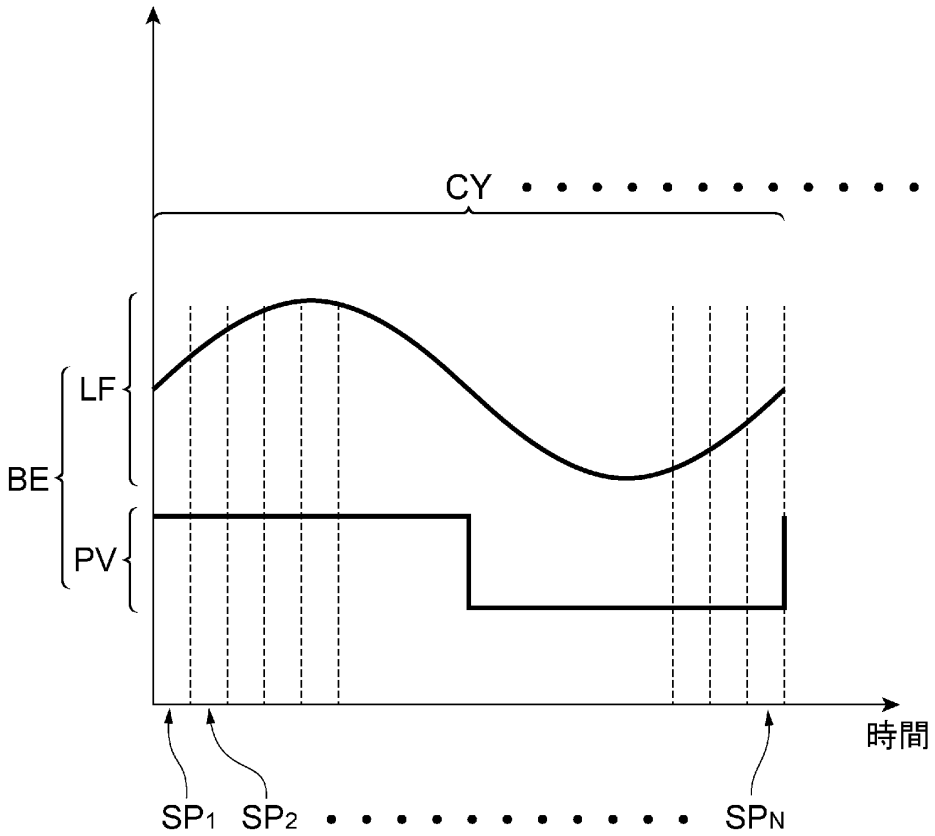
[図2]


2a1
2a2
2a3
2
2a
1
20
38
10
13
13b
13a
22
21
13c
10s
11
111b
111a
W
1111b
112
10a
111
1111
1110
1111a
1110a
10e
30
31
RF
40
35
36
33
100
BE
32
34
50

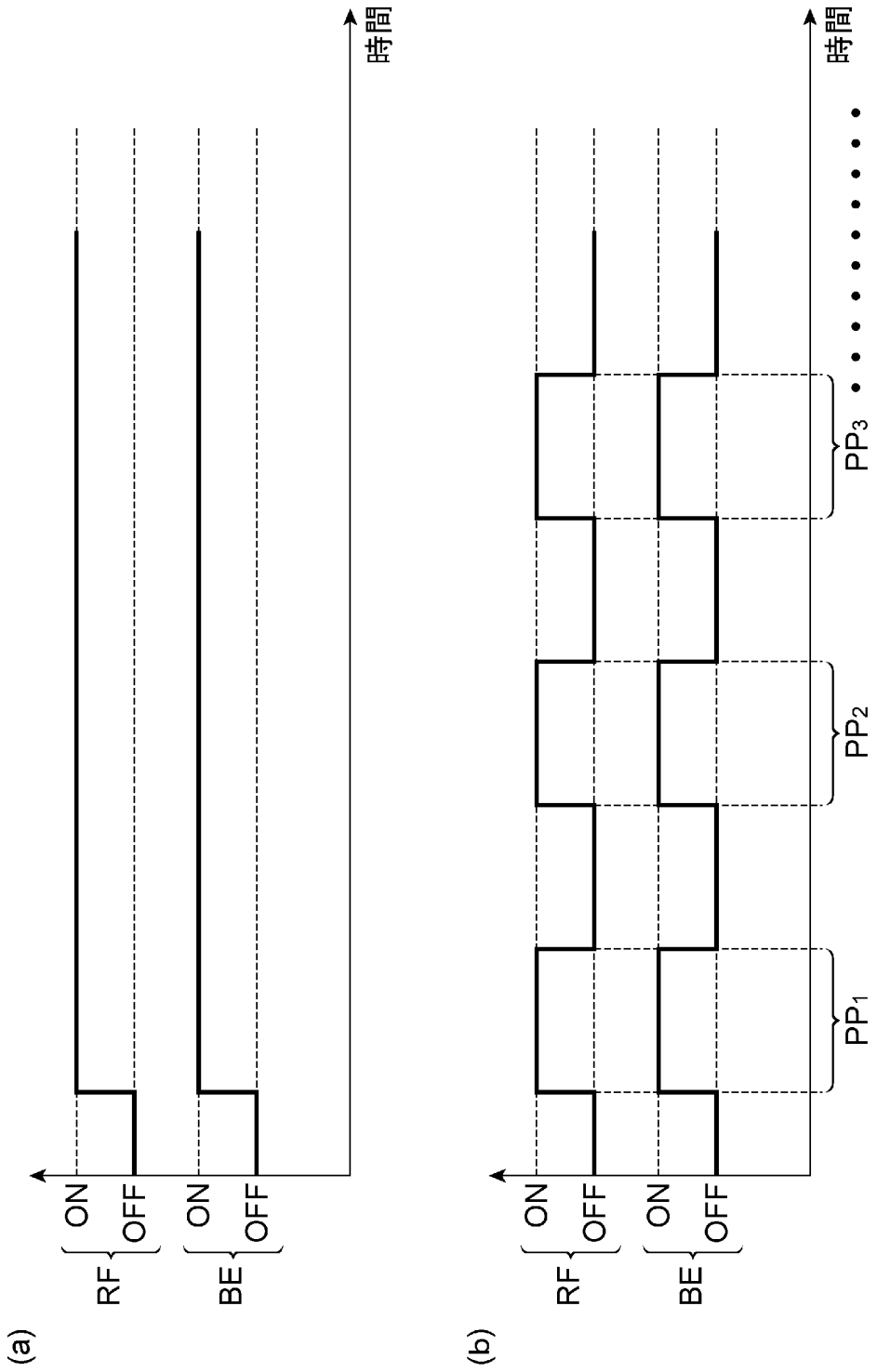
[図3]



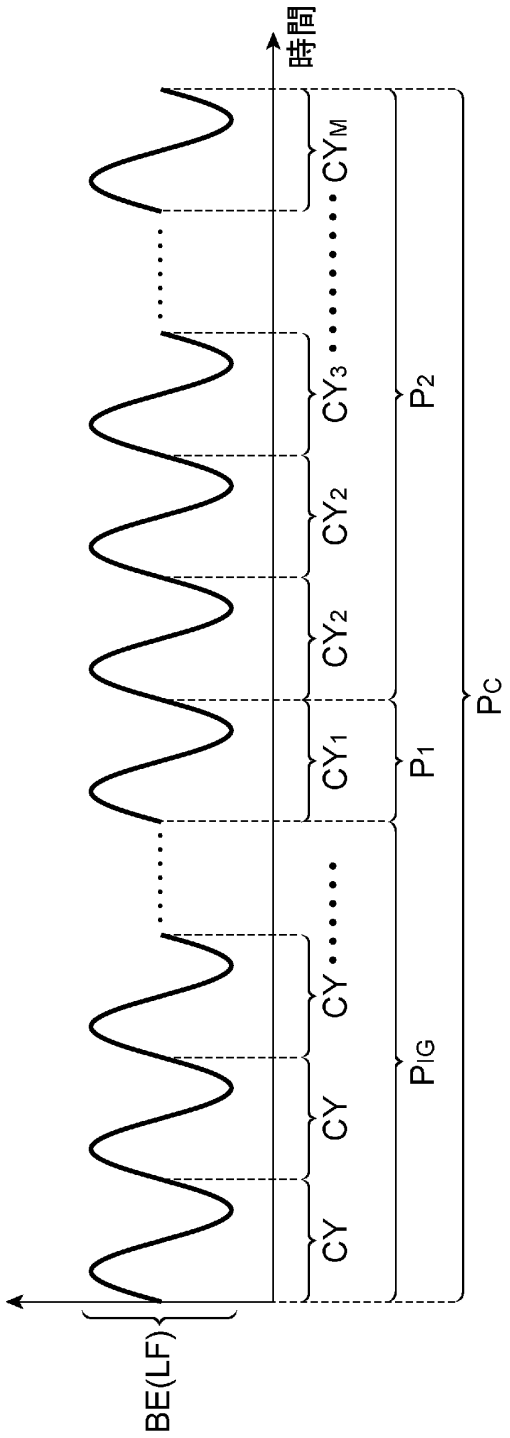
[図4]



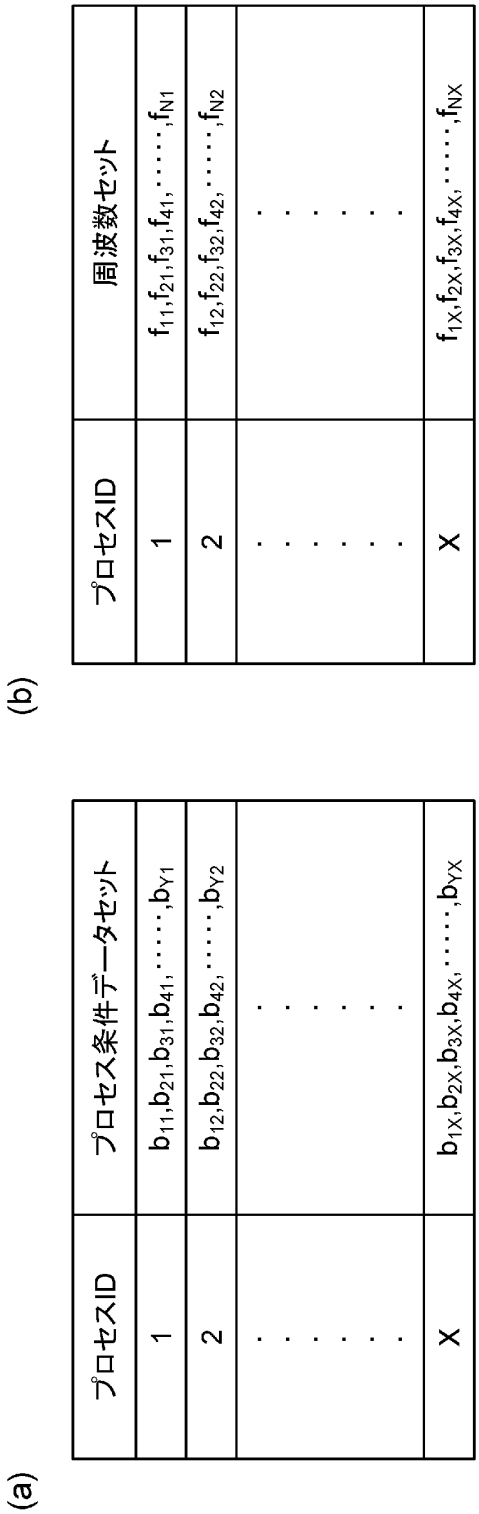
[図5]



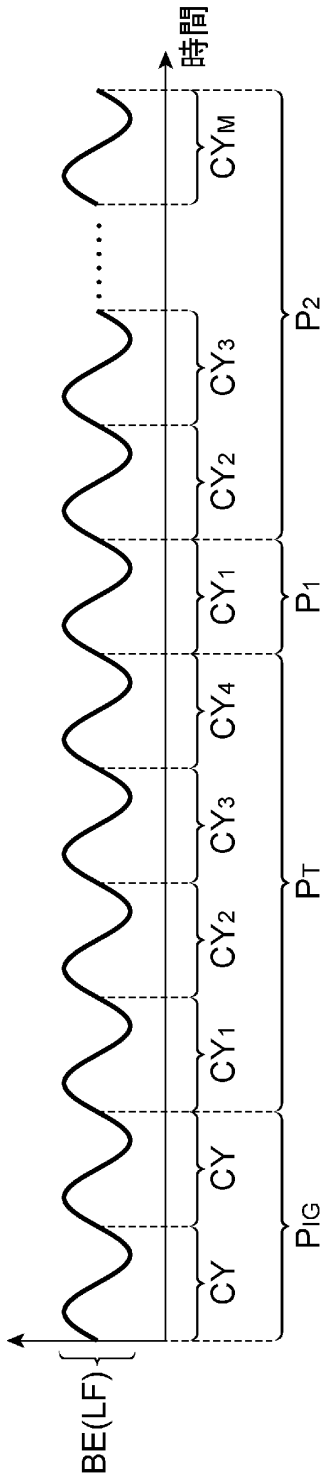
[図6]



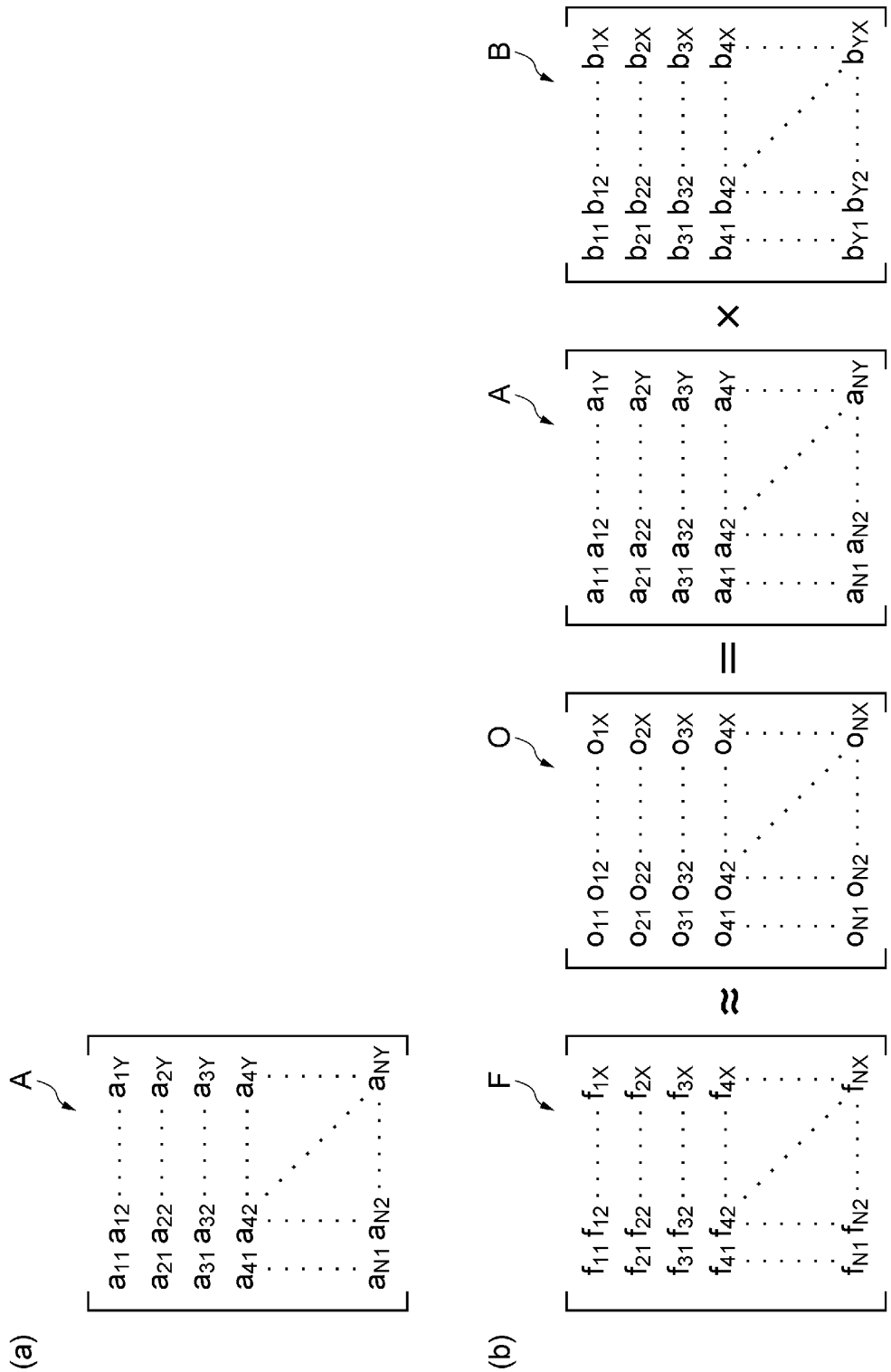
[図7]


(a)
プロセスID
プロセス条件データセット
1
$b_{11},b_{21},b_{31},b_{41},\cdots\cdots,b_{Y1}$
2
$b_{12},b_{22},b_{32},b_{42},\cdots\cdots,b_{Y2}$
X
$b_{1X},b_{2X},b_{3X},b_{4X},\cdots\cdots,b_{YX}$
(b)
プロセスID
周波数セット
1
$f_{11},f_{21},f_{31},f_{41},\cdots\cdots,f_{N1}$
2
$f_{12},f_{22},f_{32},f_{42},\cdots\cdots,f_{N2}$
X
$f_{1X},f_{2X},f_{3X},f_{4X},\cdots\cdots,f_{NX}$

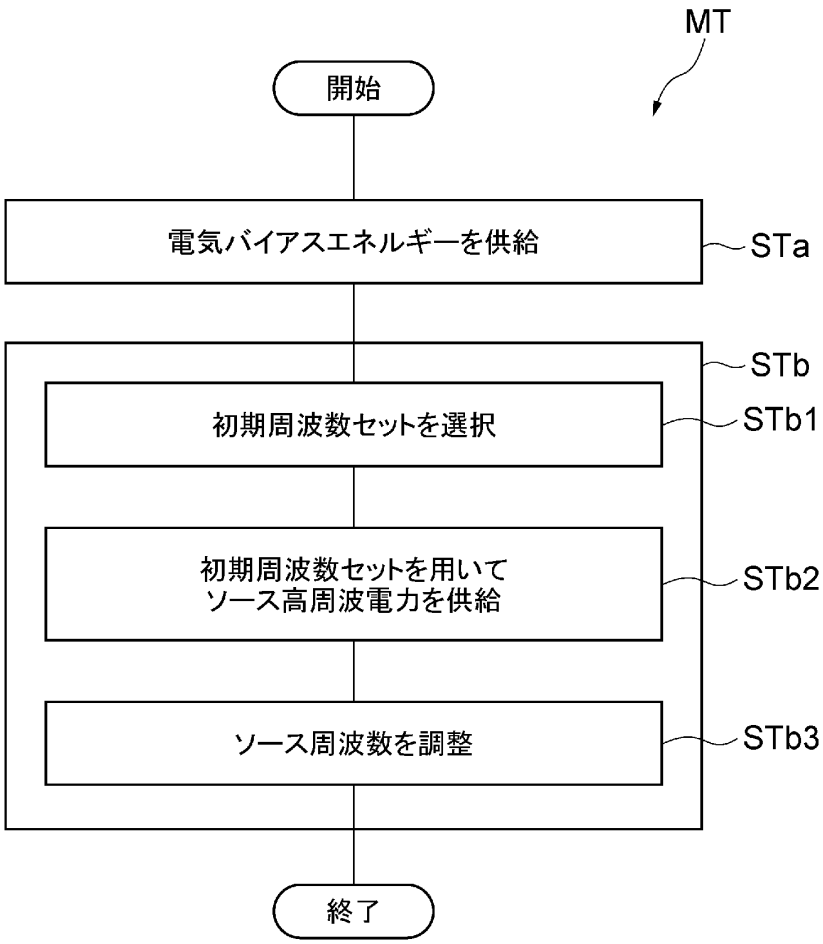
[図8]



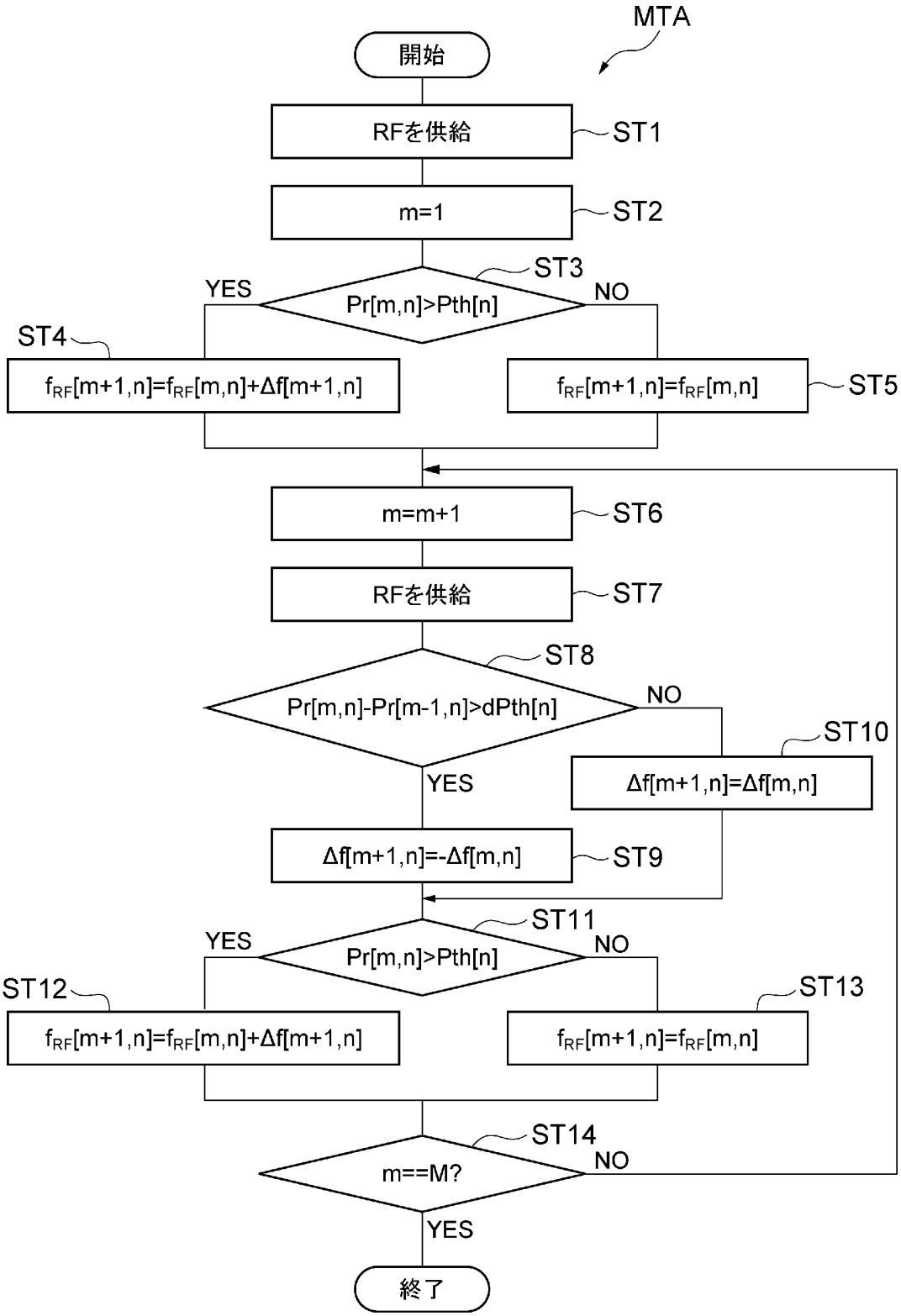
[図9]



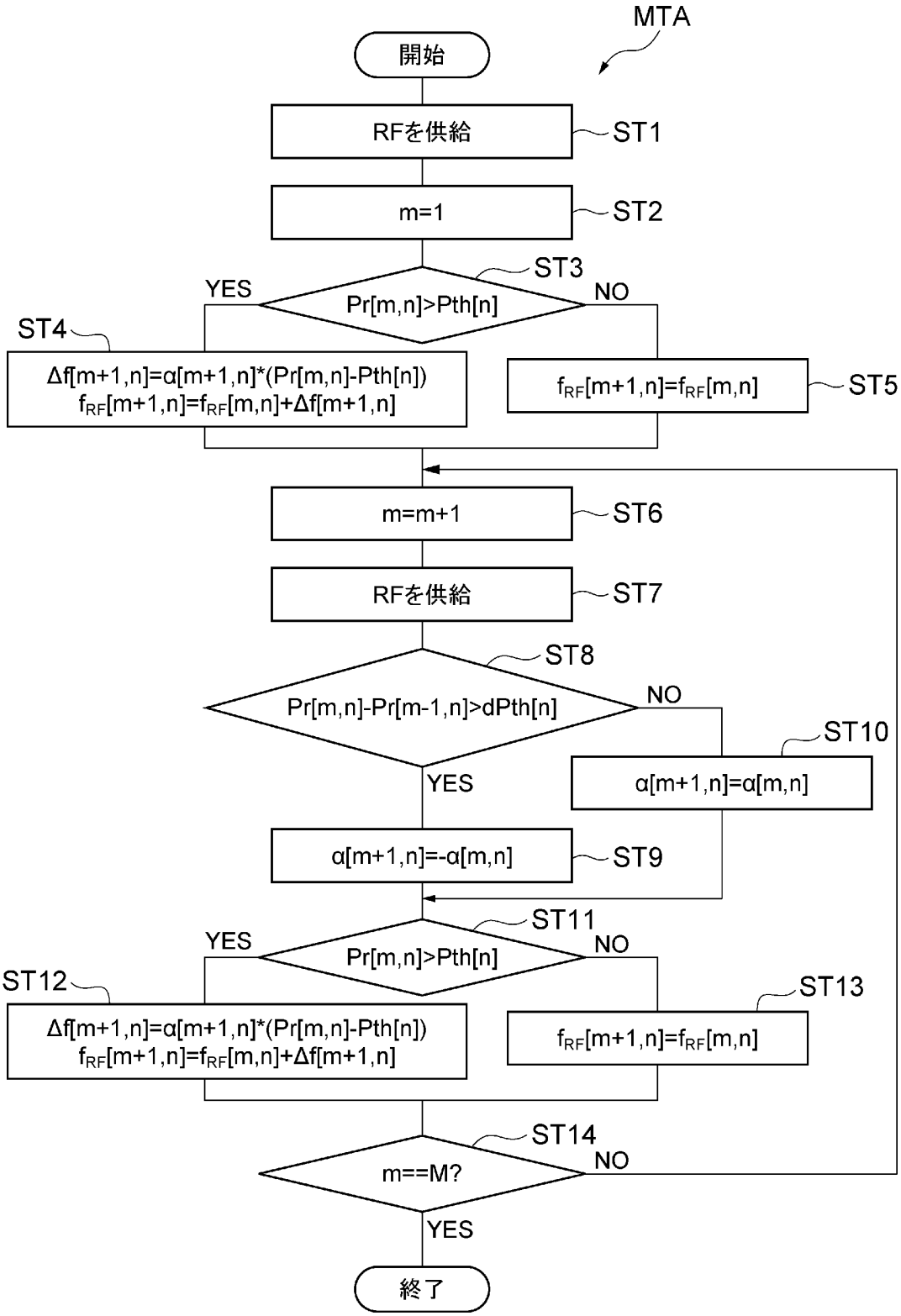
[図10]


MT
開始
電気バイアスエネルギーを供給
STa
STb
初期周波数セットを選択
STb1
初期周波数セットを用いて
ソース高周波電力を供給
STb2
ソース周波数を調整
STb3
終了

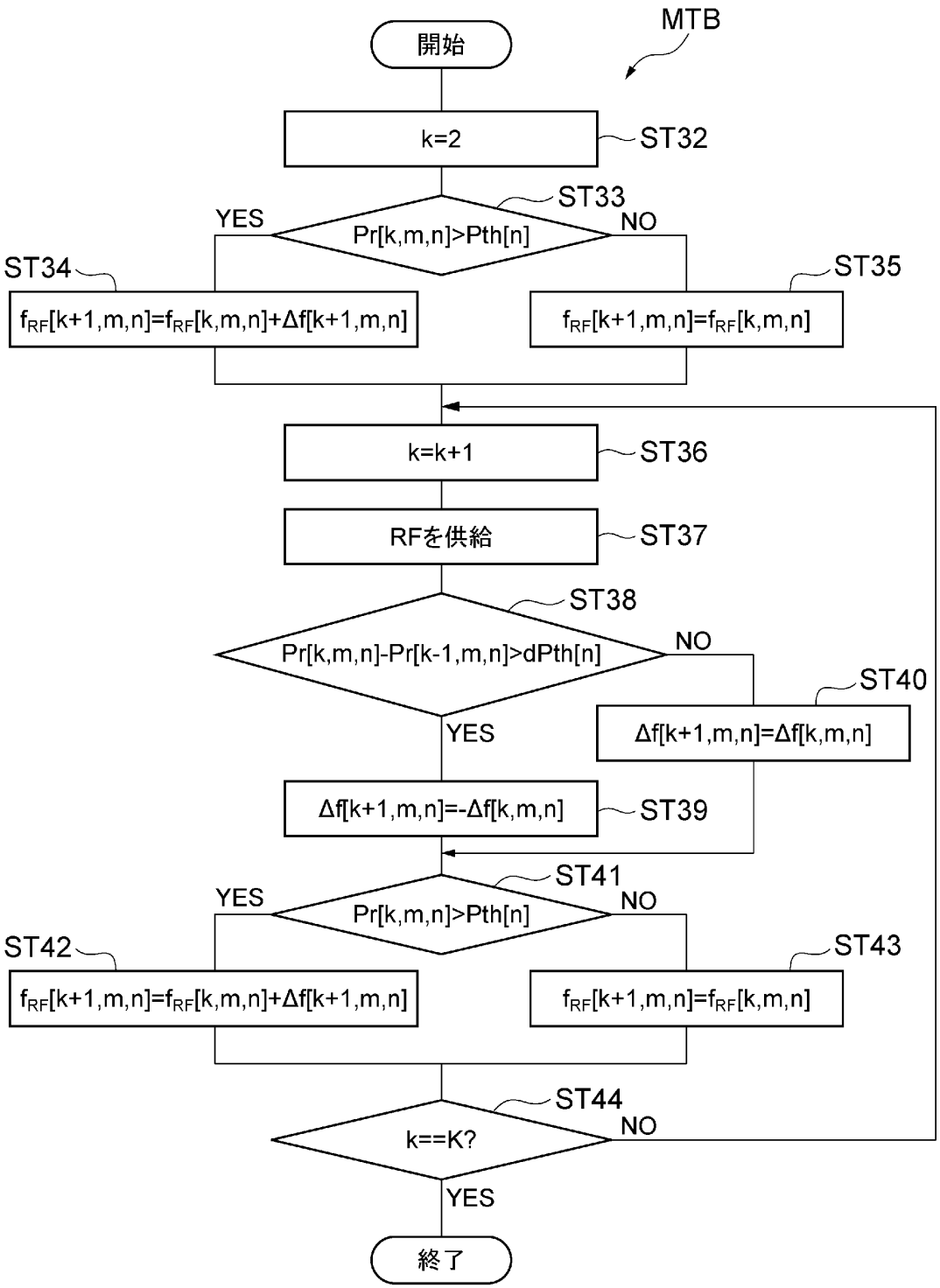
[図11]


MTA
開始
RFを供給
ST1
m=1
ST2
ST3
YES
Pr[m,n]>Pth[n]
NO
ST4
$f_{RF}[m+1,n]=f_{RF}[m,n]+\Delta f[m+1,n]$
$f_{RF}[m+1,n]=f_{RF}[m,n]$
ST5
m=m+1
ST6
RFを供給
ST7
ST8
Pr[m,n]-Pr[m-1,n]>dPth[n]
NO
ST10
YES
$\Delta f[m+1,n]=\Delta f[m,n]$
$\Delta f[m+1,n]=-\Delta f[m,n]$
ST9
ST11
YES
Pr[m,n]>Pth[n]
NO
ST12
ST13
$f_{RF}[m+1,n]=f_{RF}[m,n]+\Delta f[m+1,n]$
$f_{RF}[m+1,n]=f_{RF}[m,n]$
ST14
m==M?
NO
YES
終了

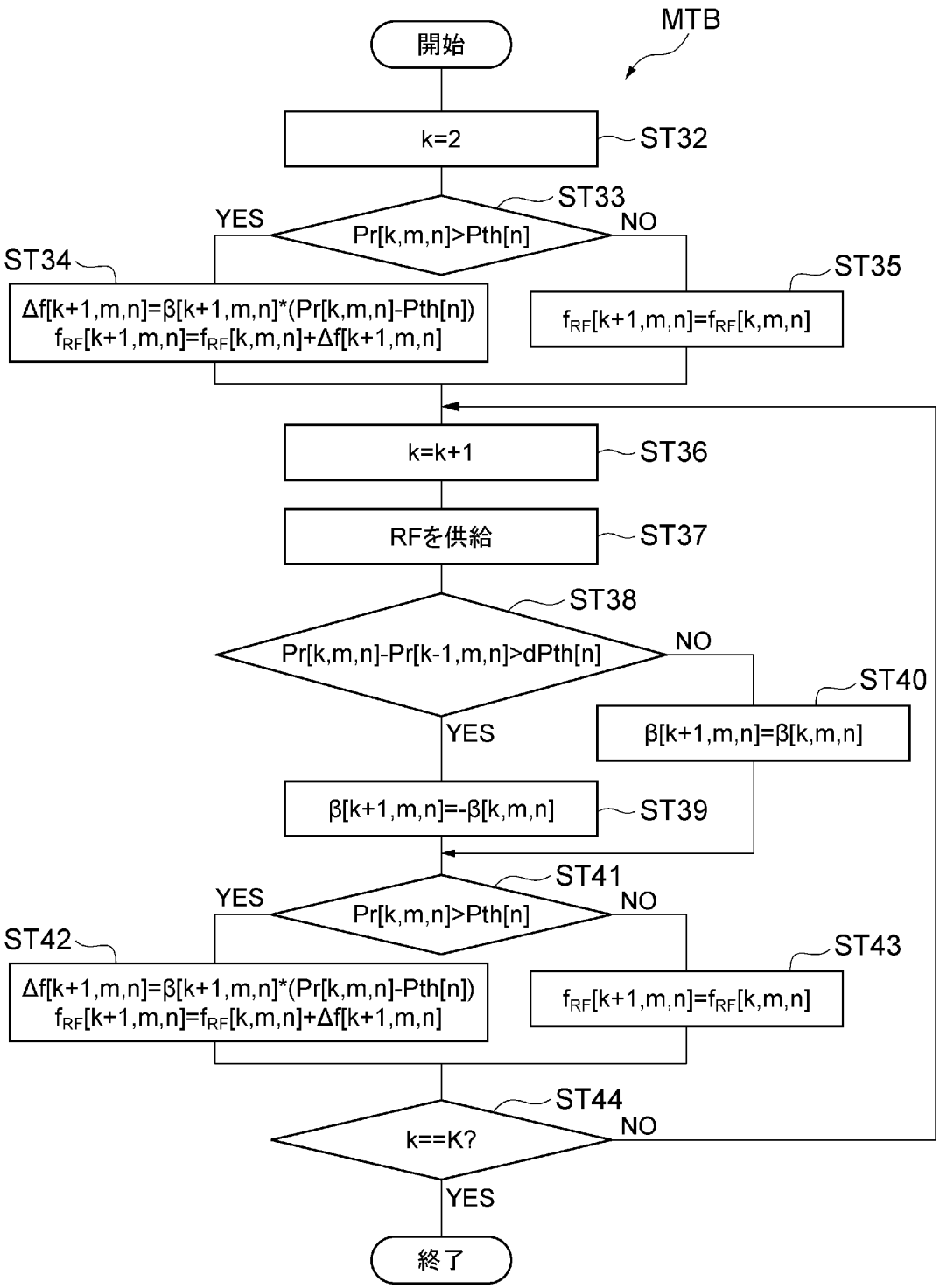
[図12]


MTA
開始
RFを供給
ST1
m=1
ST2
ST3
YES
Pr[m,n]>Pth[n]
NO
ST4
Δf[m+1,n]=α[m+1,n]*(Pr[m,n]-Pth[n])
fRF[m+1,n]=fRF[m,n]+Δf[m+1,n]
fRF[m+1,n]=fRF[m,n]
ST5
m=m+1
ST6
RFを供給
ST7
ST8
Pr[m,n]-Pr[m-1,n]>dPth[n]
NO
ST10
YES
α[m+1,n]=α[m,n]
α[m+1,n]=-α[m,n]
ST9
ST11
YES
Pr[m,n]>Pth[n]
NO
ST12
ST13
Δf[m+1,n]=α[m+1,n]*(Pr[m,n]-Pth[n])
fRF[m+1,n]=fRF[m,n]+Δf[m+1,n]
fRF[m+1,n]=fRF[m,n]
ST14
m==M?
NO
YES
終了

[図13]


MTB
開始
k=2
ST32
ST33
YES
Pr[k,m,n]>Pth[n]
NO
ST34
$f_{RF}[k+1,m,n]=f_{RF}[k,m,n]+\Delta f[k+1,m,n]$
ST35
$f_{RF}[k+1,m,n]=f_{RF}[k,m,n]$
k=k+1
ST36
RFを供給
ST37
ST38
Pr[k,m,n]-Pr[k-1,m,n]>dPth[n]
NO
ST40
YES
$\Delta f[k+1,m,n]=\Delta f[k,m,n]$
$\Delta f[k+1,m,n]=-\Delta f[k,m,n]$
ST39
ST41
YES
Pr[k,m,n]>Pth[n]
NO
ST42
$f_{RF}[k+1,m,n]=f_{RF}[k,m,n]+\Delta f[k+1,m,n]$
ST43
$f_{RF}[k+1,m,n]=f_{RF}[k,m,n]$
ST44
k==K?
NO
YES
終了

[図14]


MTB
開始
k=2
ST32
ST33
YES
Pr[k,m,n]>Pth[n]
NO
ST34
Δf[k+1,m,n]=β[k+1,m,n]*(Pr[k,m,n]-Pth[n])
fRF[k+1,m,n]=fRF[k,m,n]+Δf[k+1,m,n]
ST35
fRF[k+1,m,n]=fRF[k,m,n]
k=k+1
ST36
RFを供給
ST37
ST38
Pr[k,m,n]-Pr[k-1,m,n]>dPth[n]
NO
YES
ST40
β[k+1,m,n]=β[k,m,n]
β[k+1,m,n]=-β[k,m,n]
ST39
ST41
YES
Pr[k,m,n]>Pth[n]
NO
ST42
Δf[k+1,m,n]=β[k+1,m,n]*(Pr[k,m,n]-Pth[n])
fRF[k+1,m,n]=fRF[k,m,n]+Δf[k+1,m,n]
ST43
fRF[k+1,m,n]=fRF[k,m,n]
ST44
k==K?
NO
YES
終了