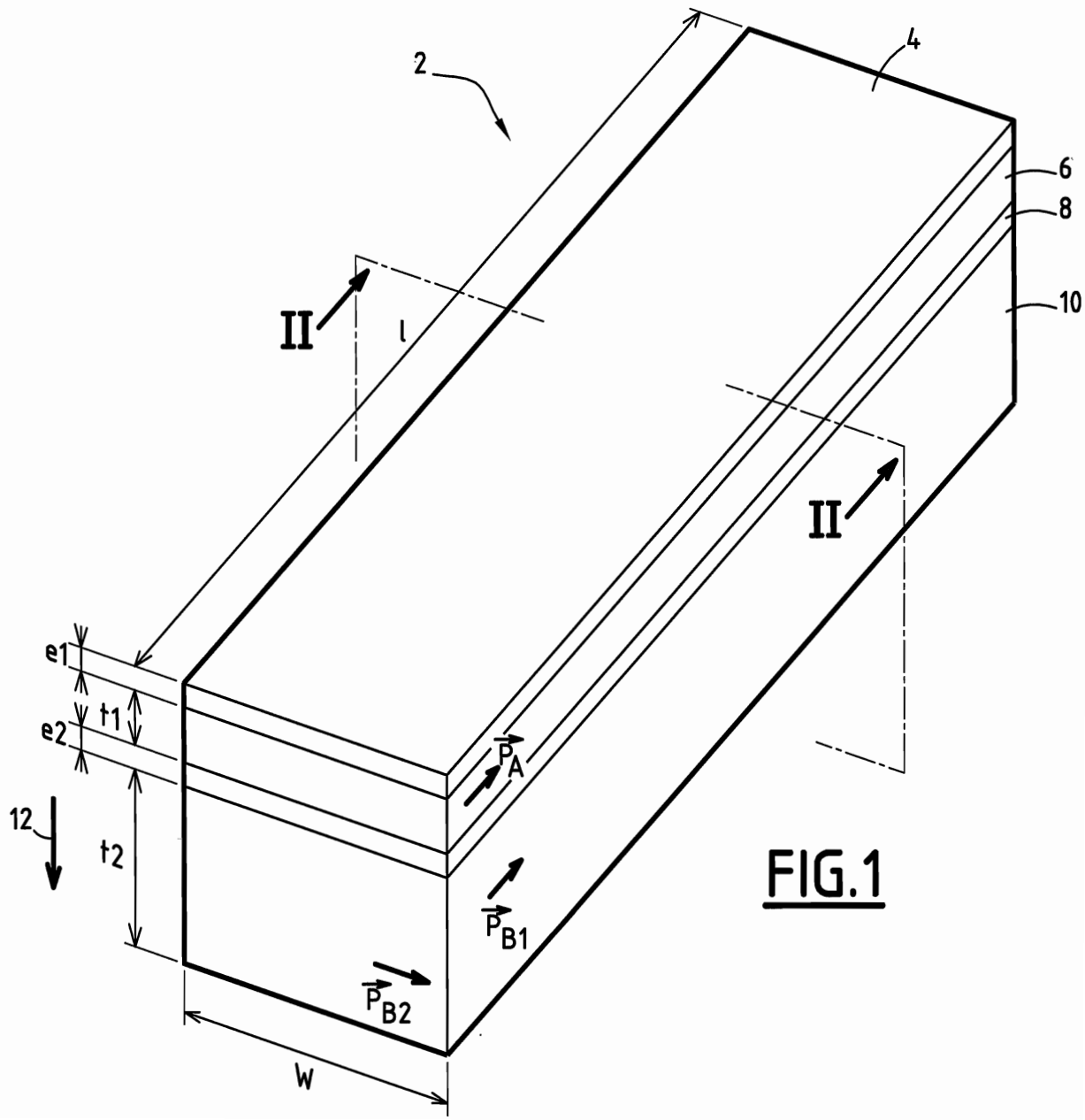


FIG.1

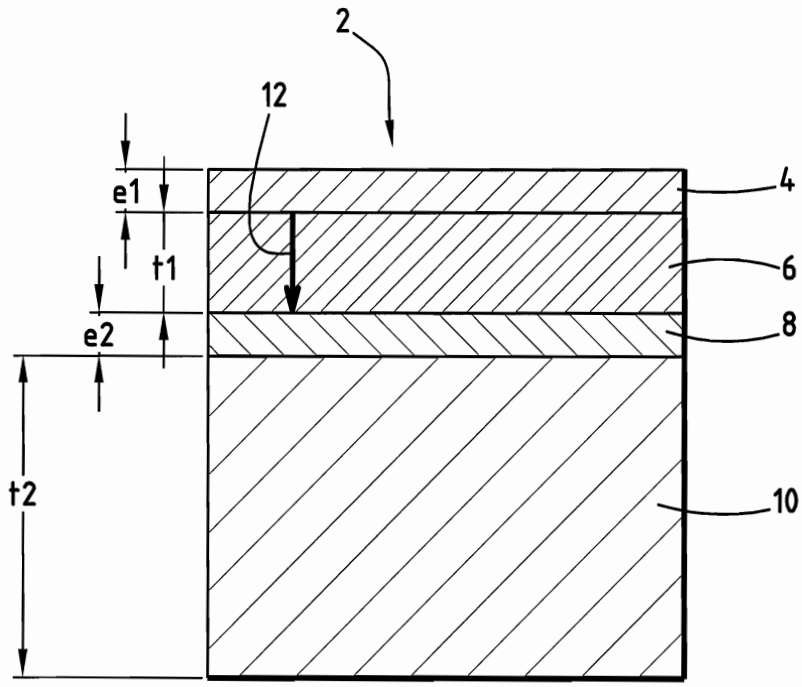


FIG.2

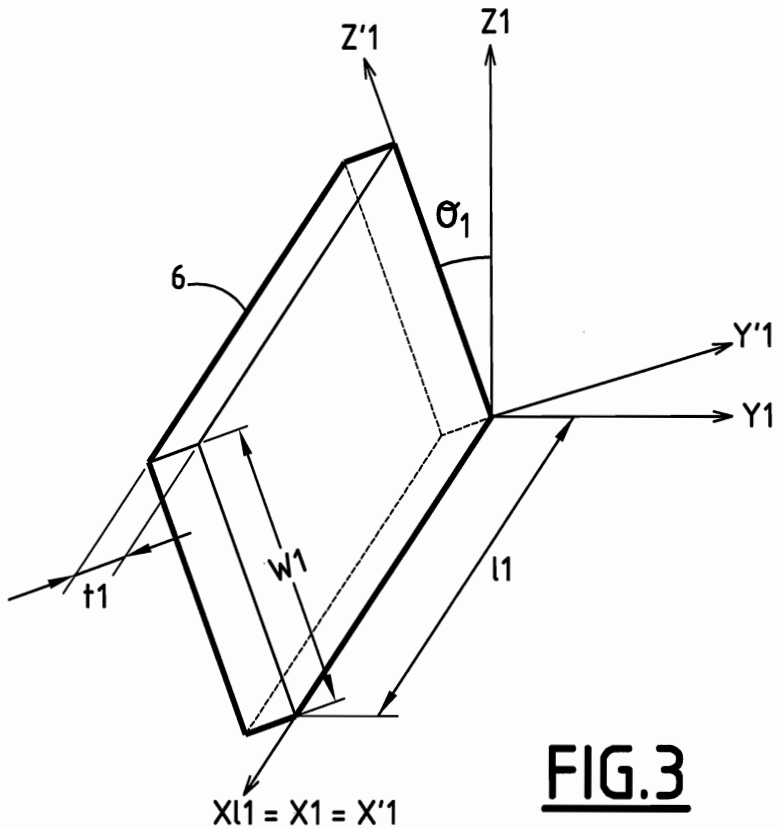

Z'1
Z1
σ1
6
Y'1
Y1
W1
l1
t1
Xl1 = X1 = X'1

FIG.3

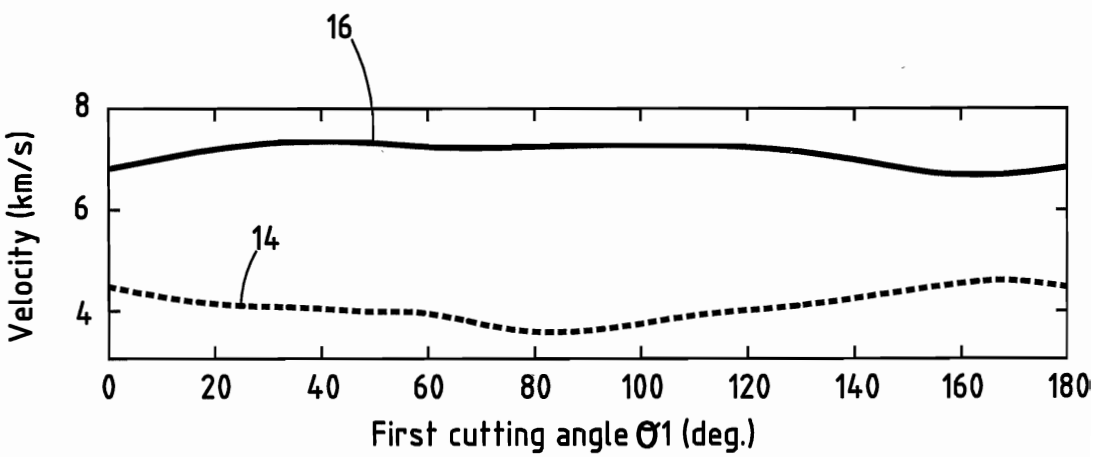

16
8
6
4
14
Velocity (km/s)
0
20
40
60
80
100
120
140
160
180
First cutting angle σ1 (deg.)

FIG.4

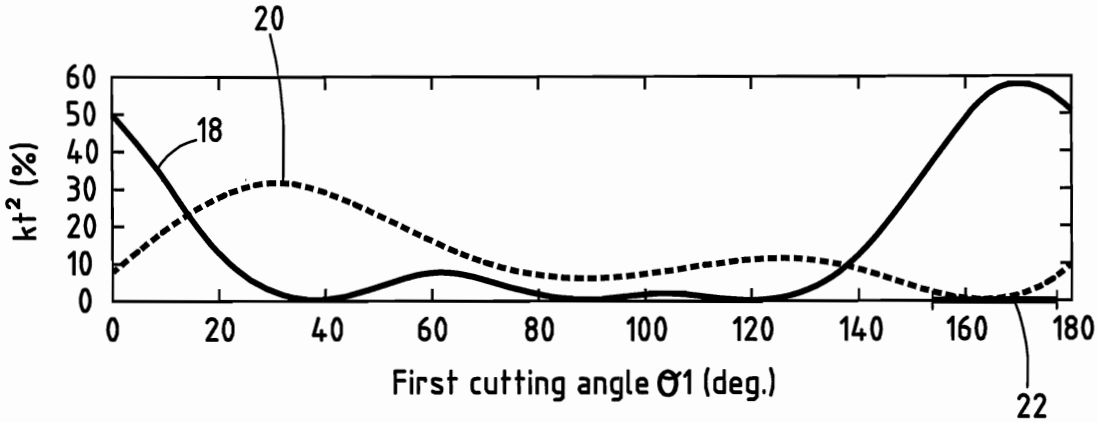

20
18
22
60
50
40
30
20
10
0
kt^2 (%)
0
20
40
60
80
100
120
140
160
180
First cutting angle Θ1 (deg.)

FIG.5

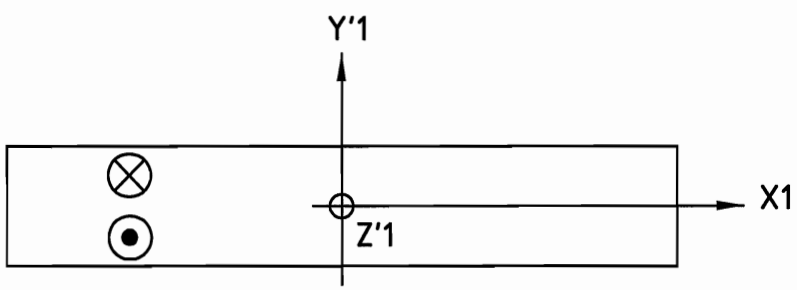

Y'1
X1
Z'1

FIG.6

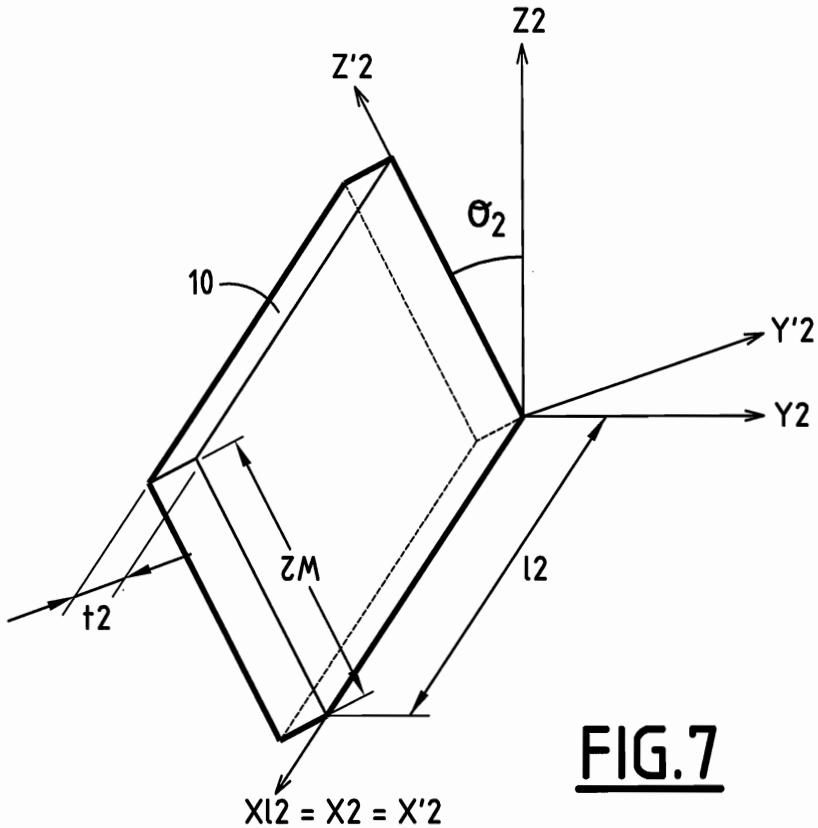


FIG.7

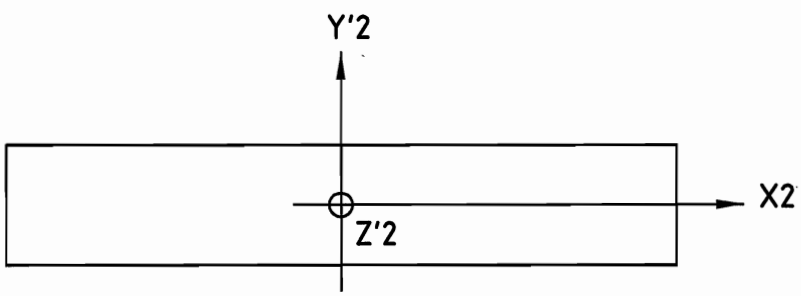


FIG.8

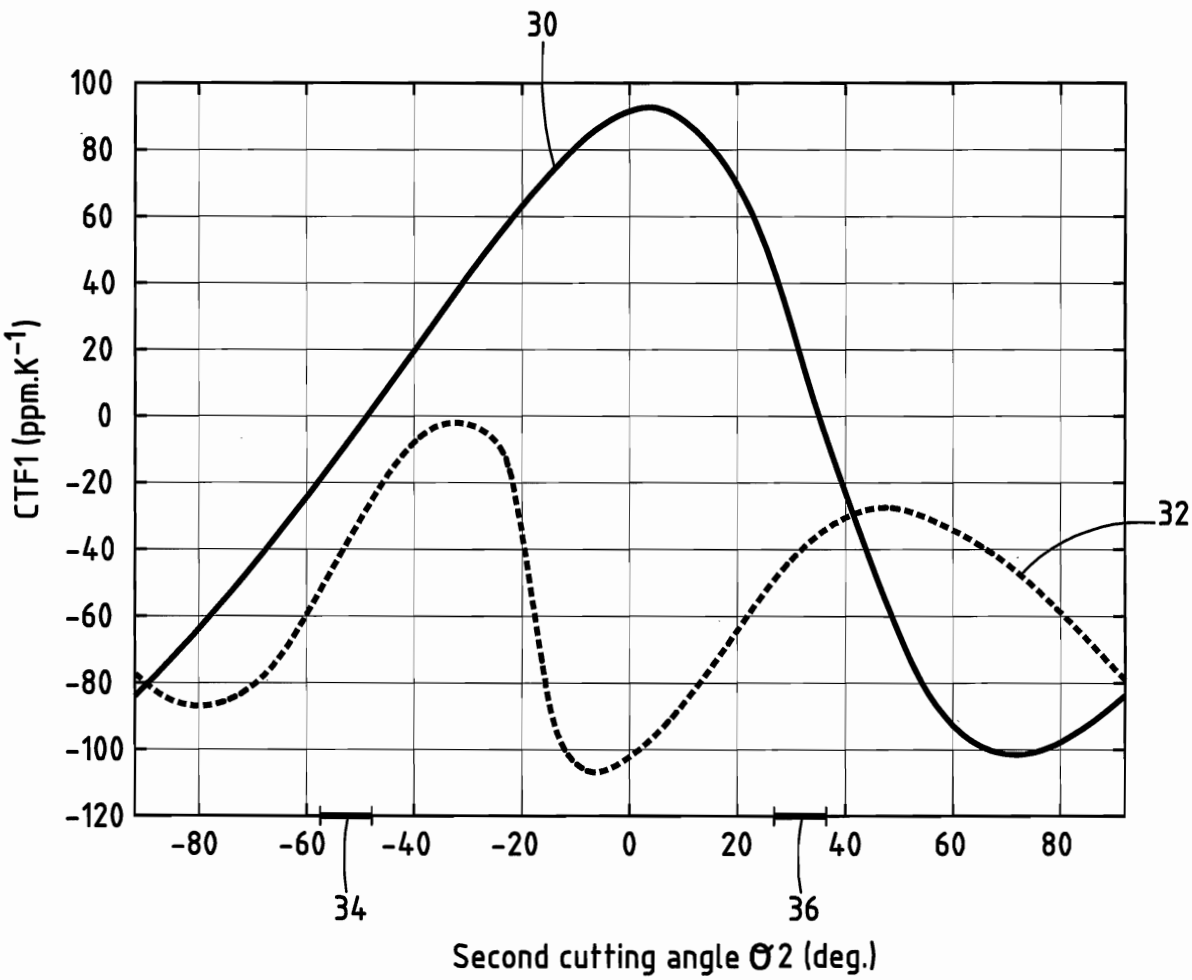

30
32
100
80
60
40
20
0
-20
-40
-60
-80
-100
-120
CTF1 (ppm.K^{-1})
-80
-60
-40
-20
0
20
40
60
80
34
36
Second cutting angle θ2 (deg.)

FIG.9

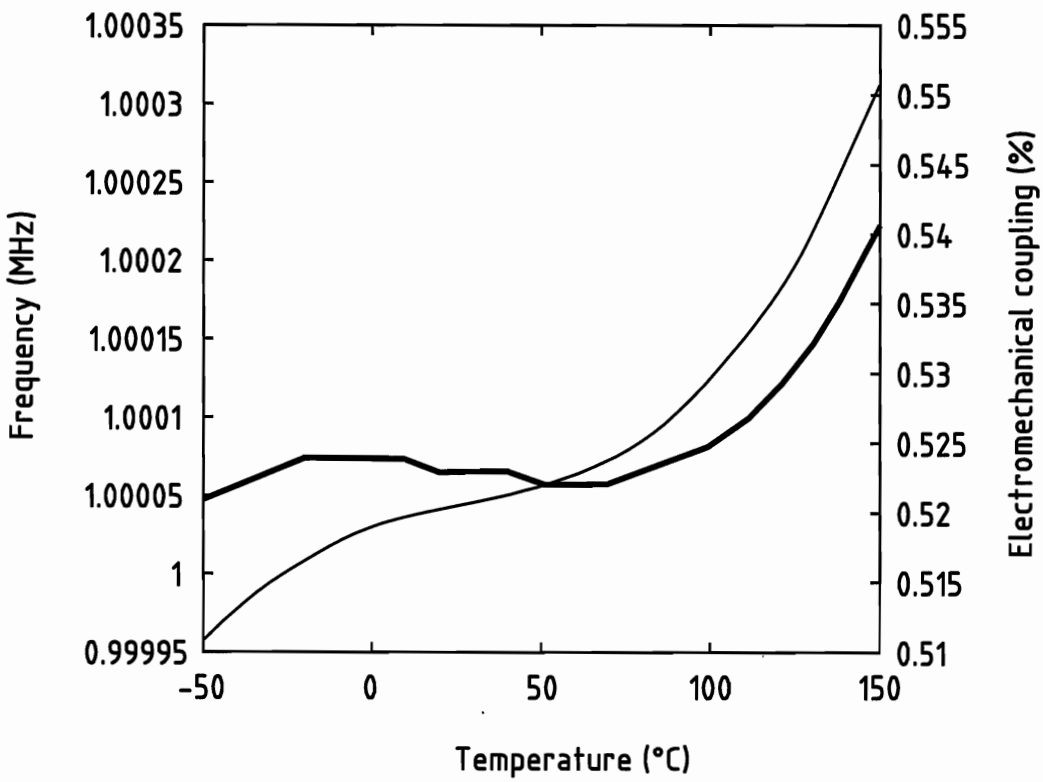

1.00035
1.0003
1.00025
1.0002
1.00015
1.0001
1.00005
1
0.99995
Frequency (MHz)
0.555
0.55
0.545
0.54
0.535
0.53
0.525
0.52
0.515
0.51
Electromechanical coupling (%)
-50
0
50
100
150
Temperature (°C)

FIG.10

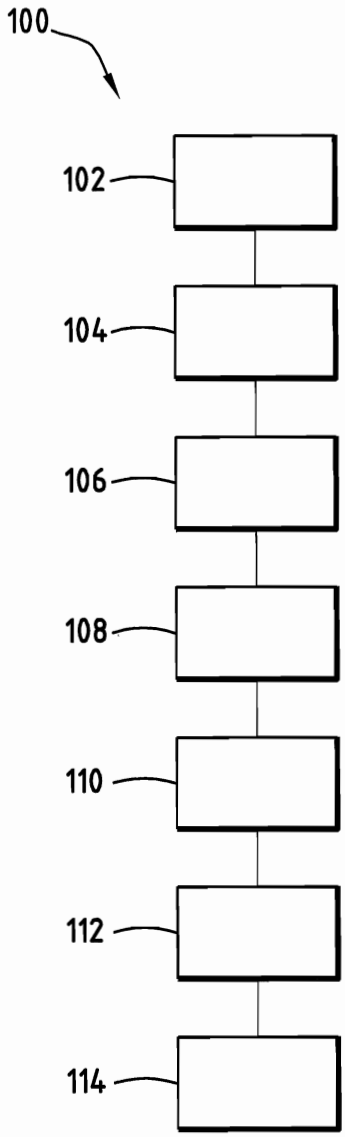


FIG.11