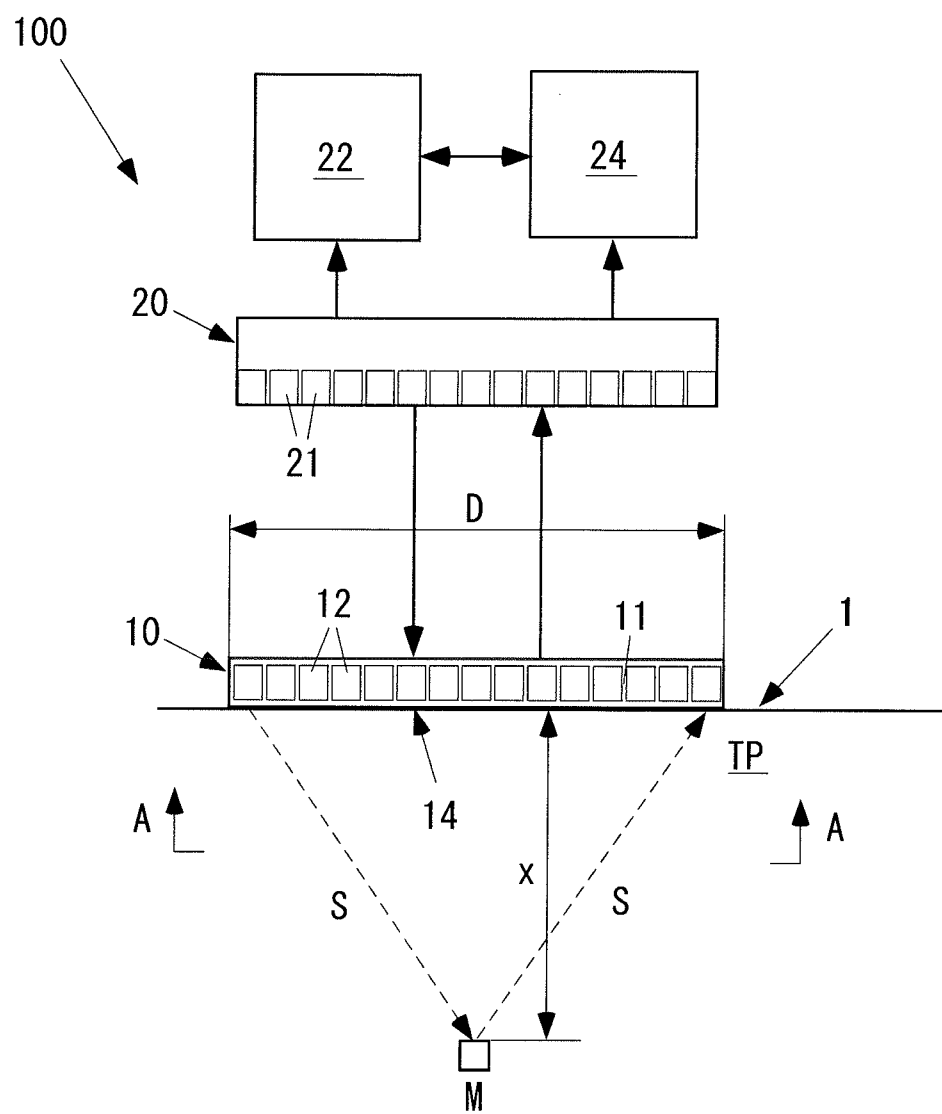
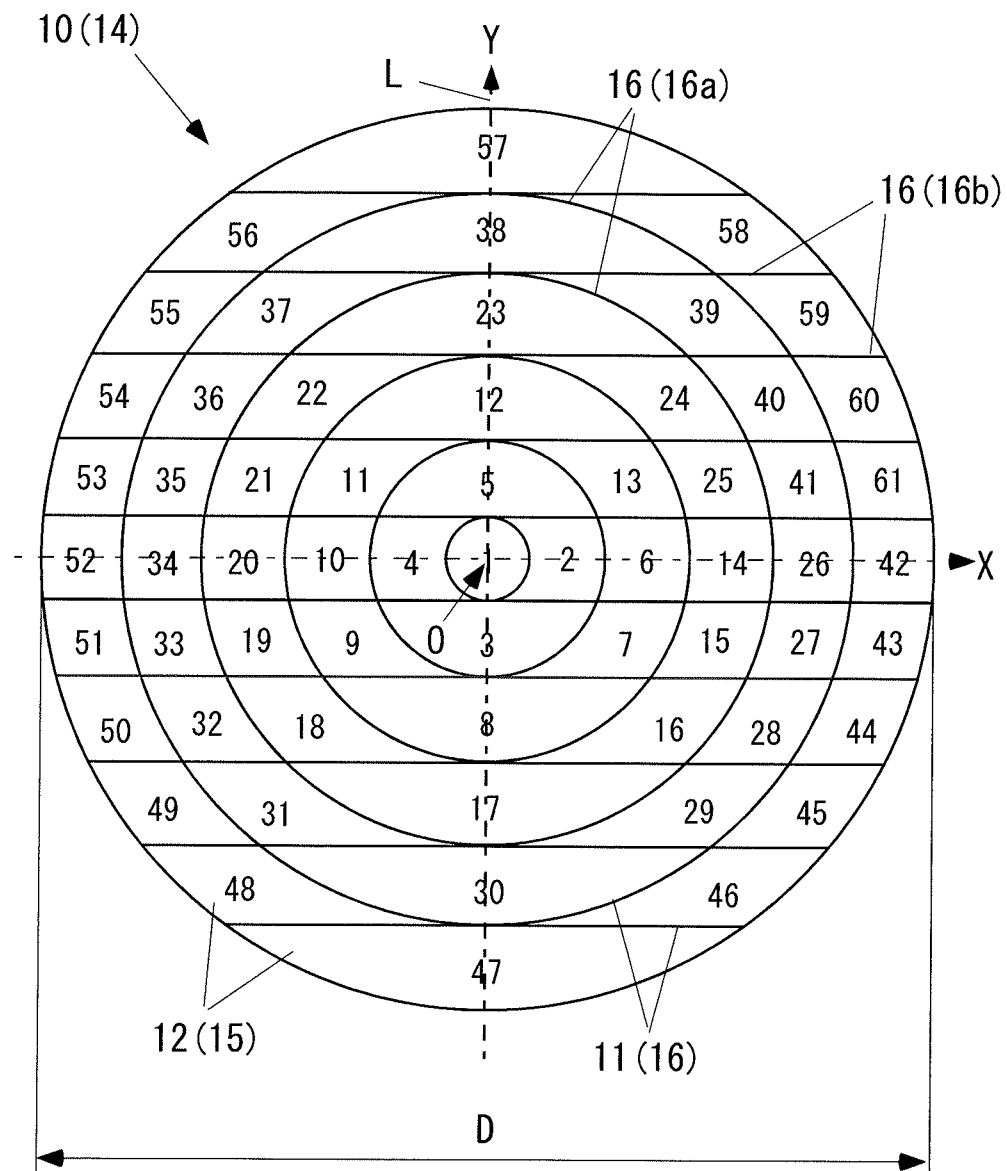


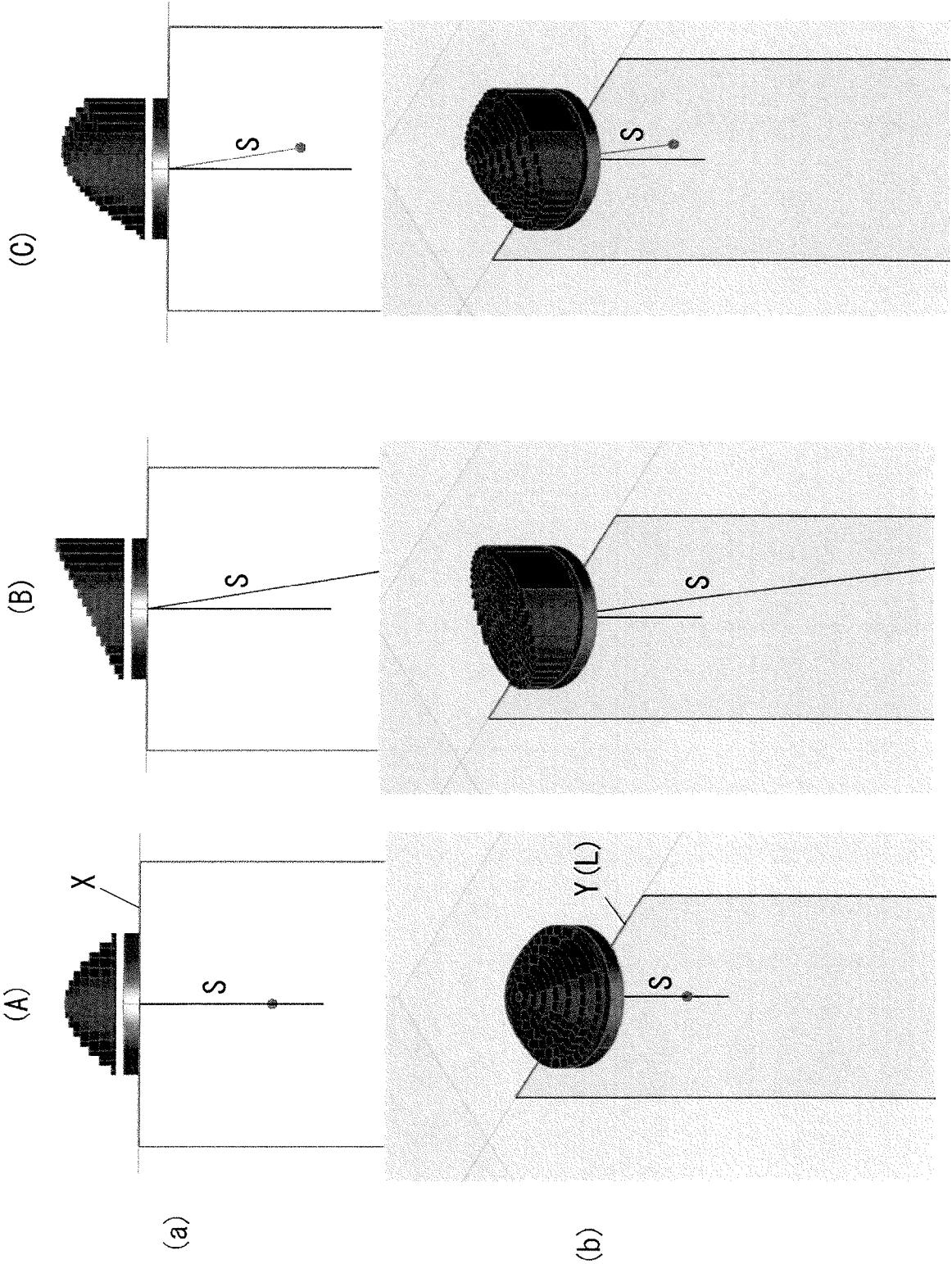
[Fig. 1]



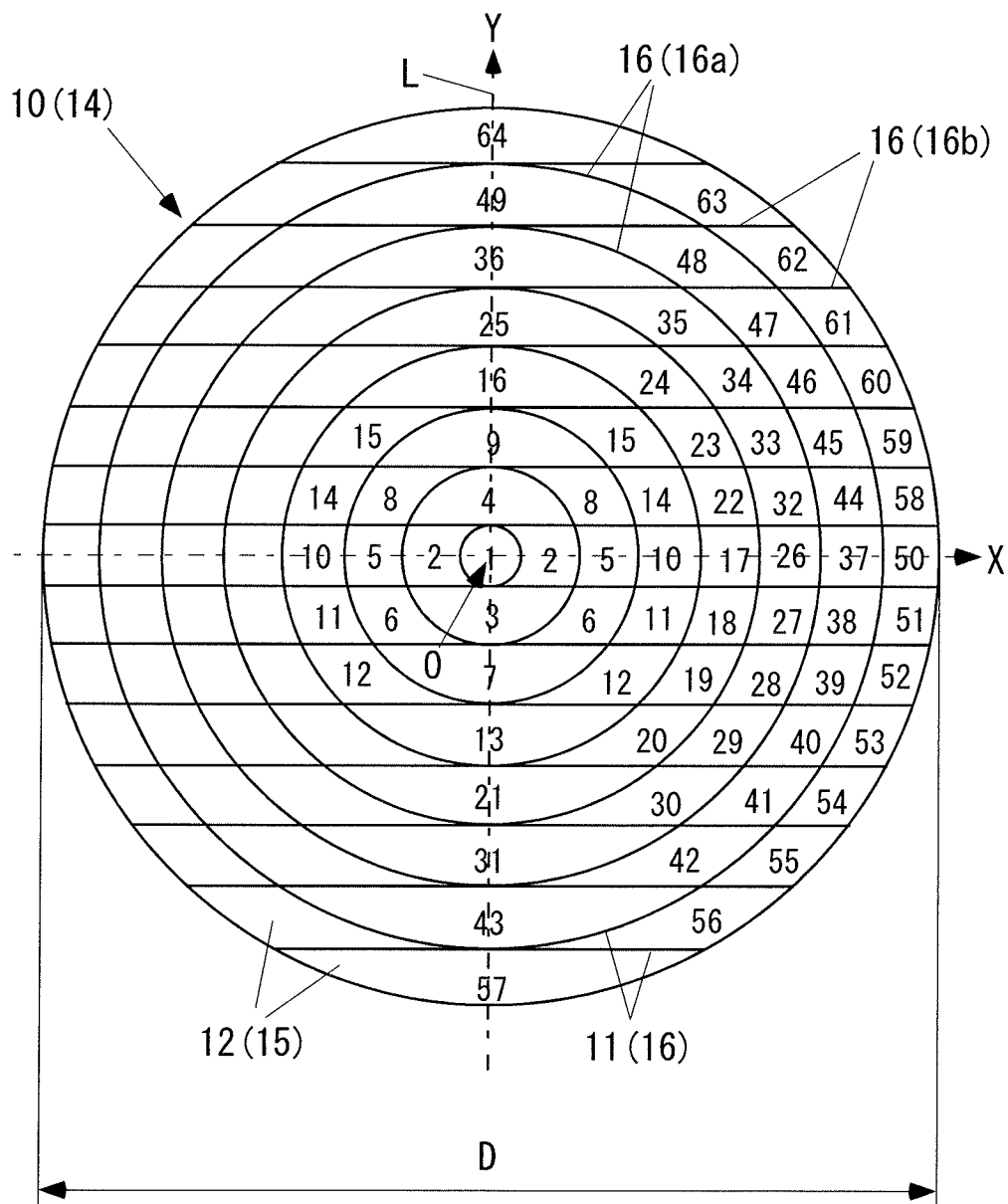
[Fig. 2]



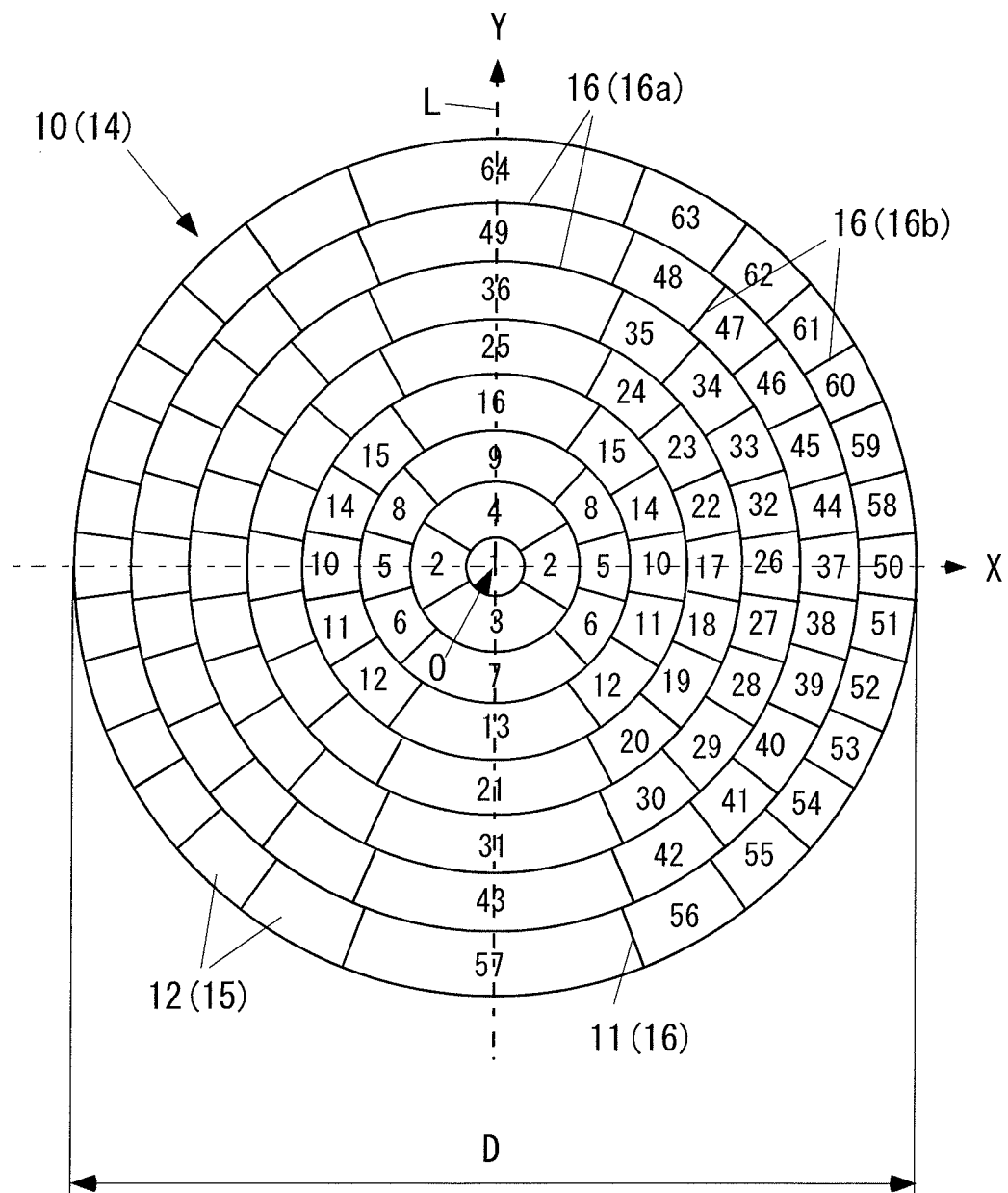
[Fig. 3]



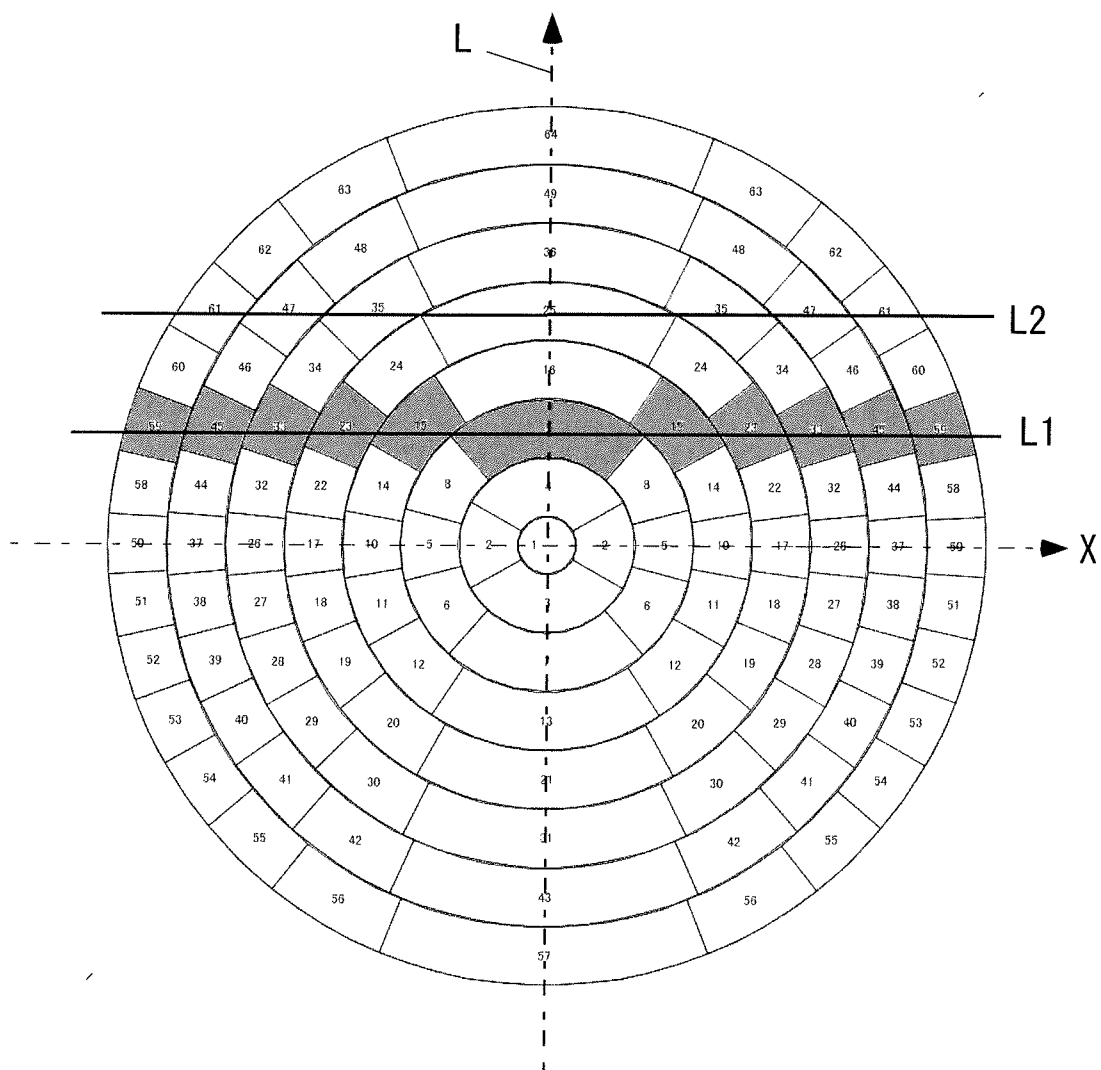
[Fig. 4]



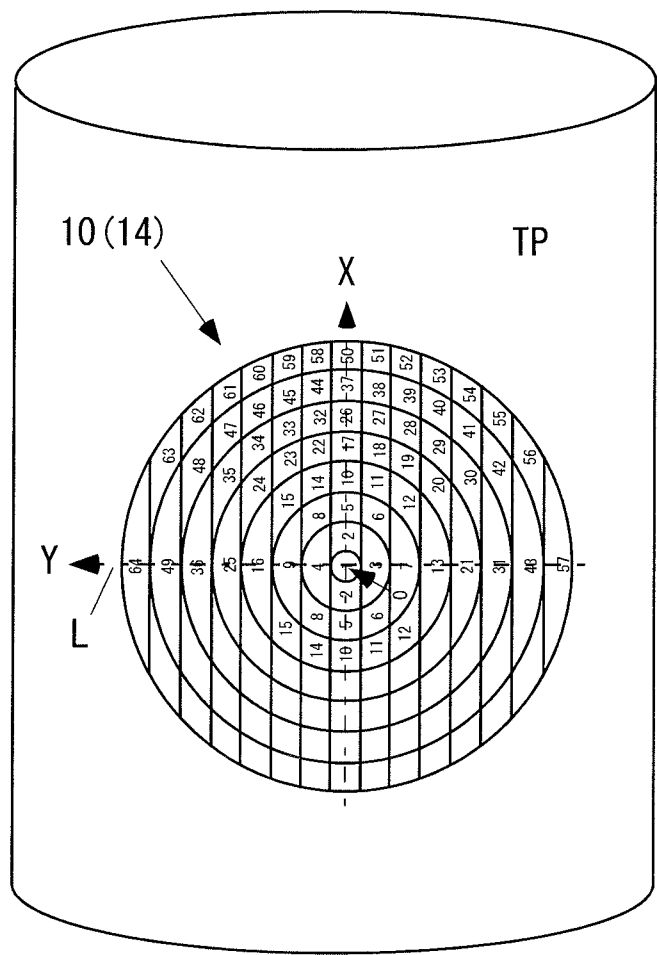
[Fig. 5]



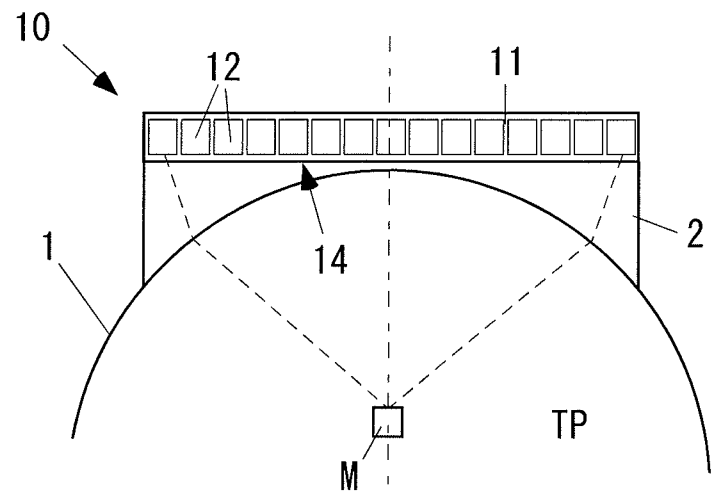
[Fig. 6]



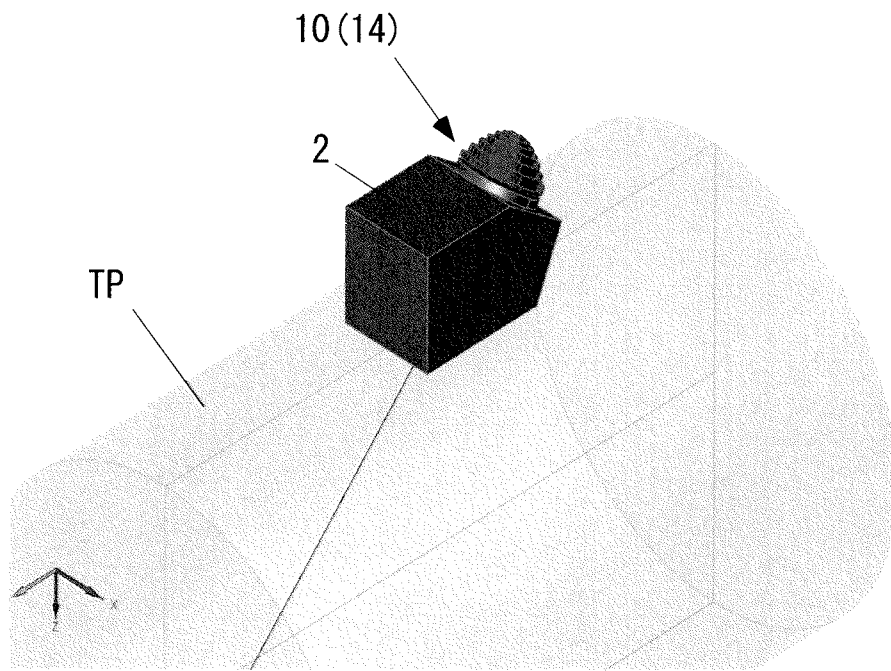
[Fig. 7A]



[Fig. 7B]

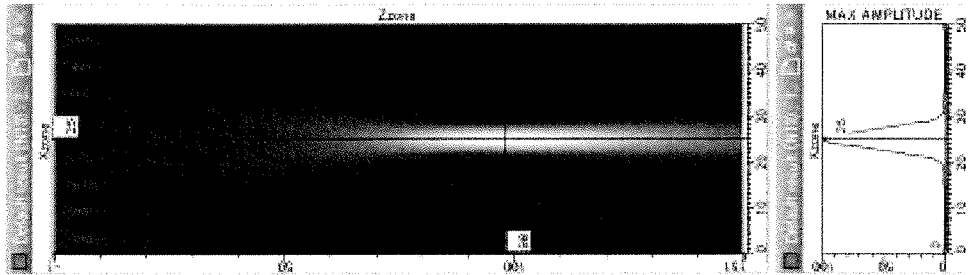


[Fig. 8]

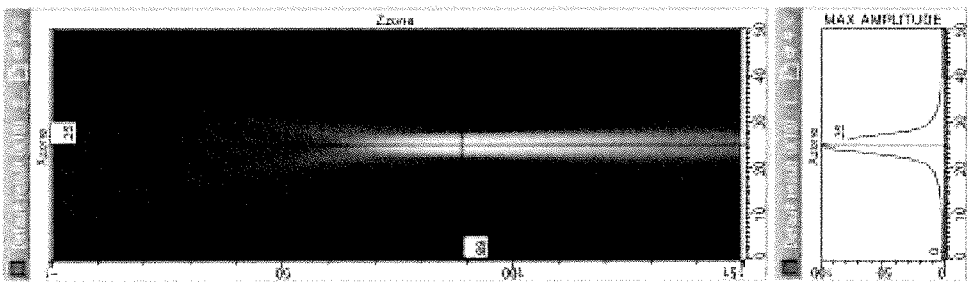


[Fig. 9]

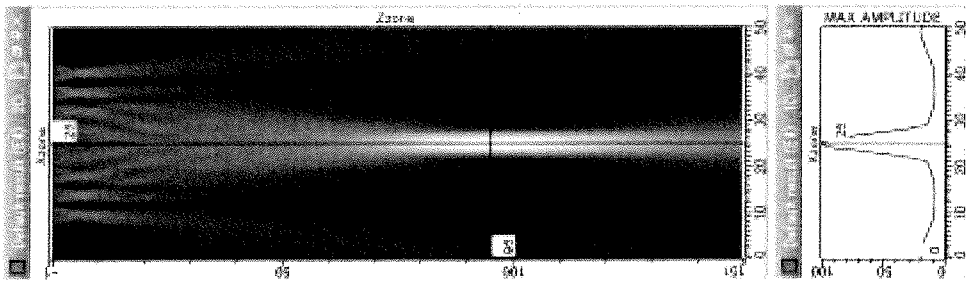
matrix probe



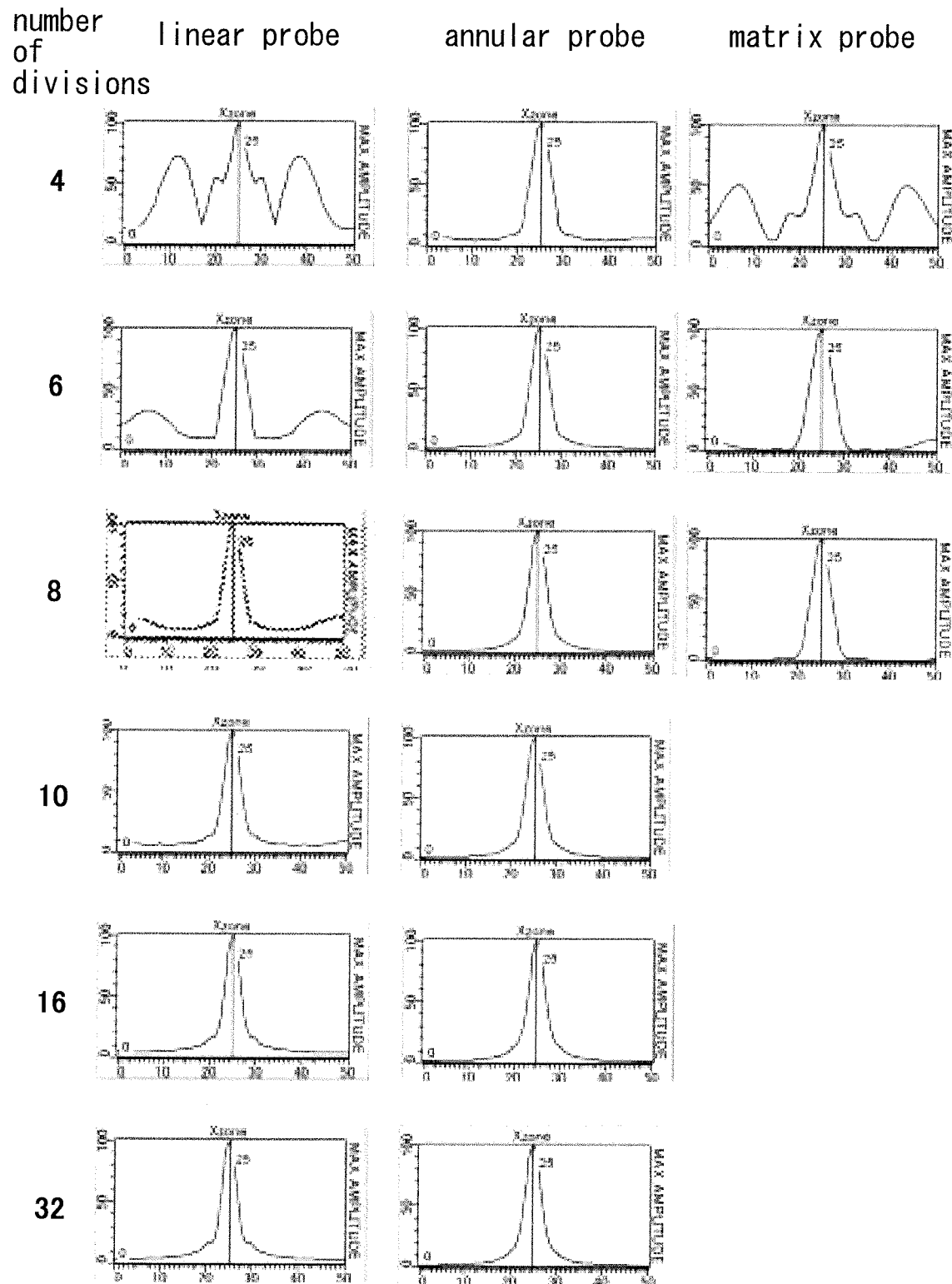
annular probe



linear probe

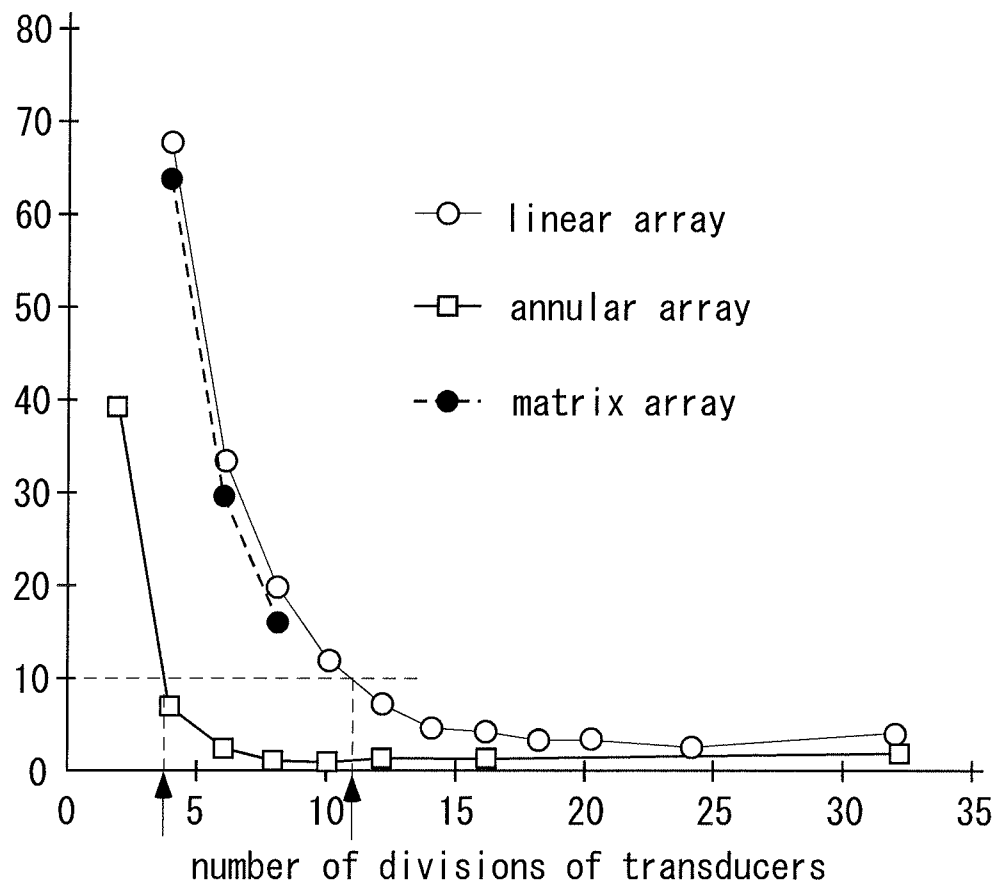


[Fig. 10]



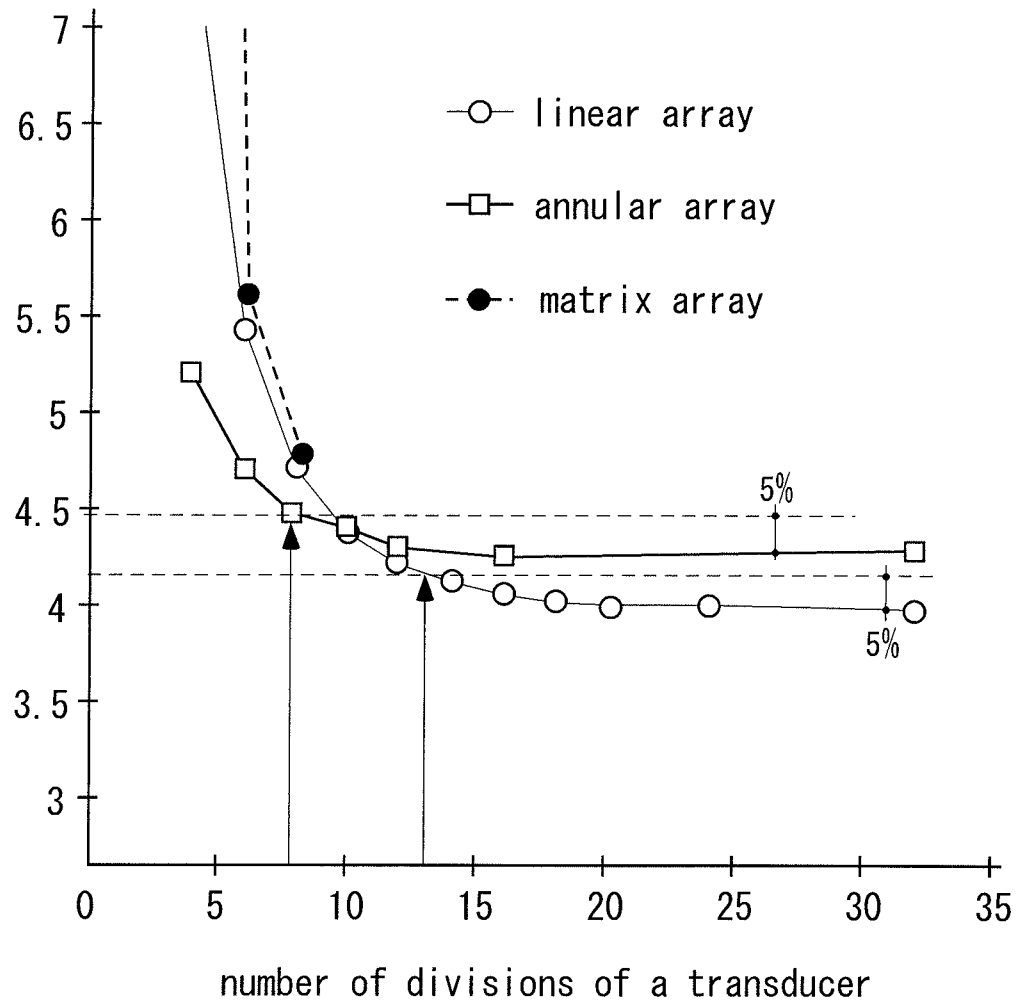
[Fig. 11]

side lobe noise level (%) at a depth of 75 mm



[Fig. 12]

beam width (mm) of the ultrasonic beam

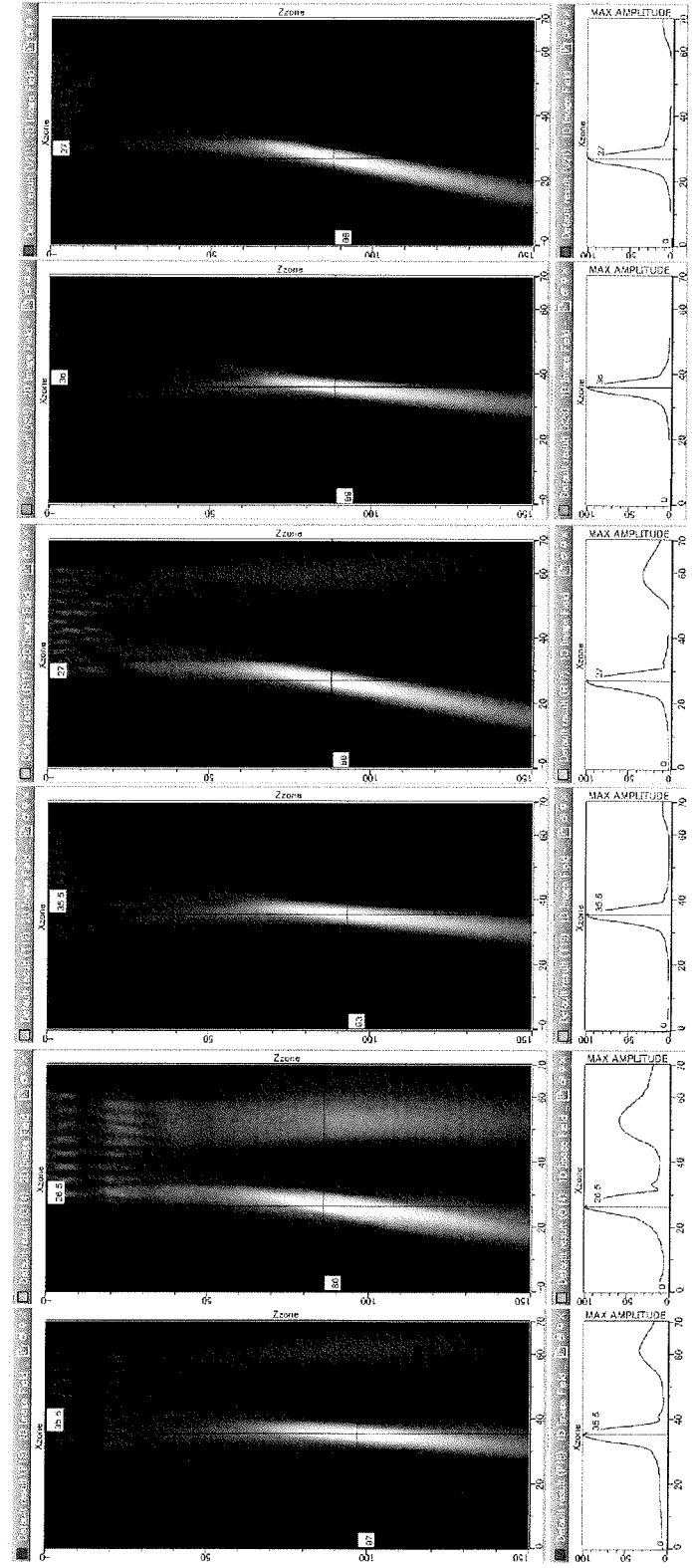


[Fig. 13]

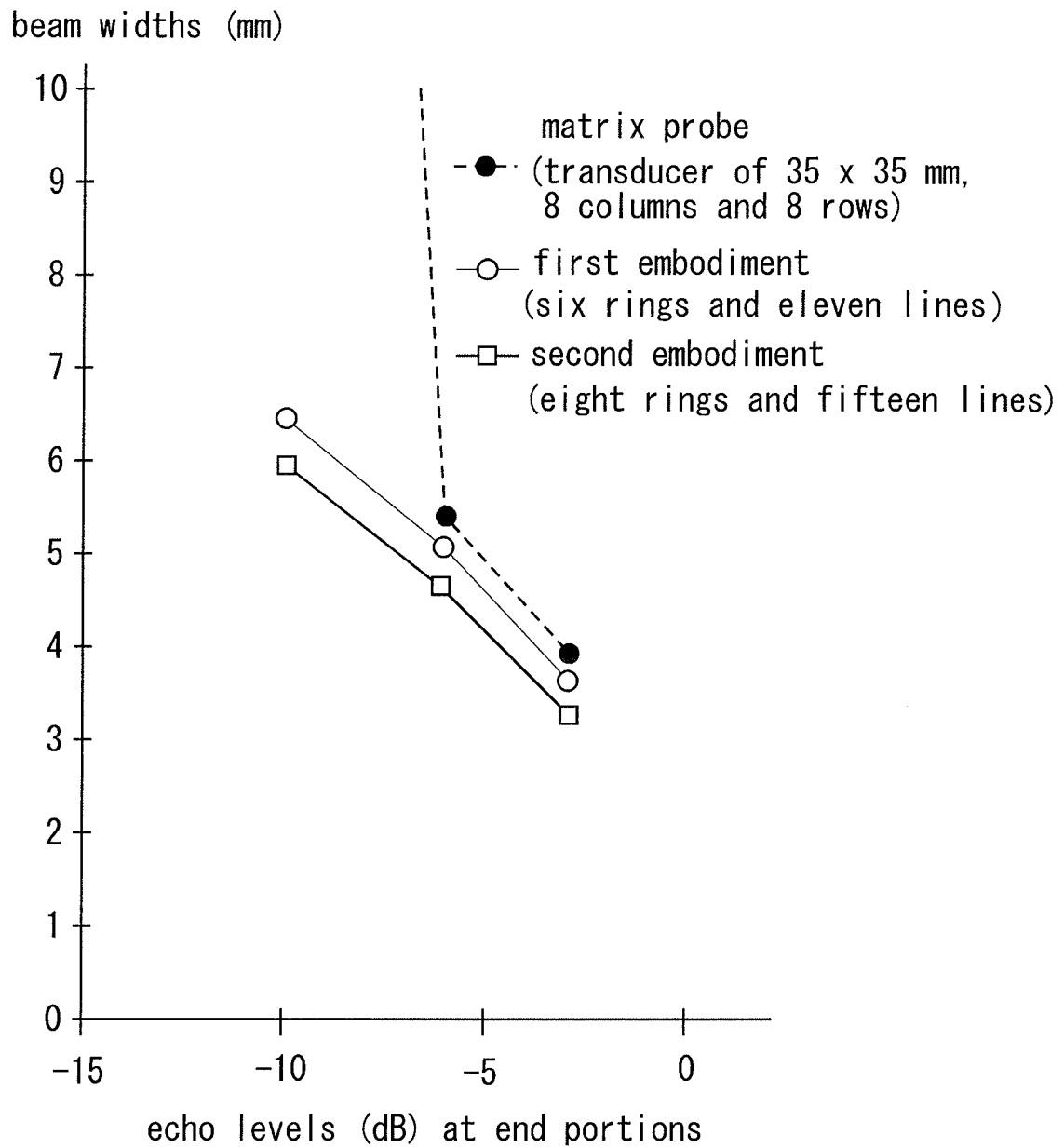
(A) matrix probe (a) (b)

(B) invented probe six rings and eleven lines (a) (b)

(C) invented probe eight rings and fifteen lines (a) (b)



[Fig. 14]

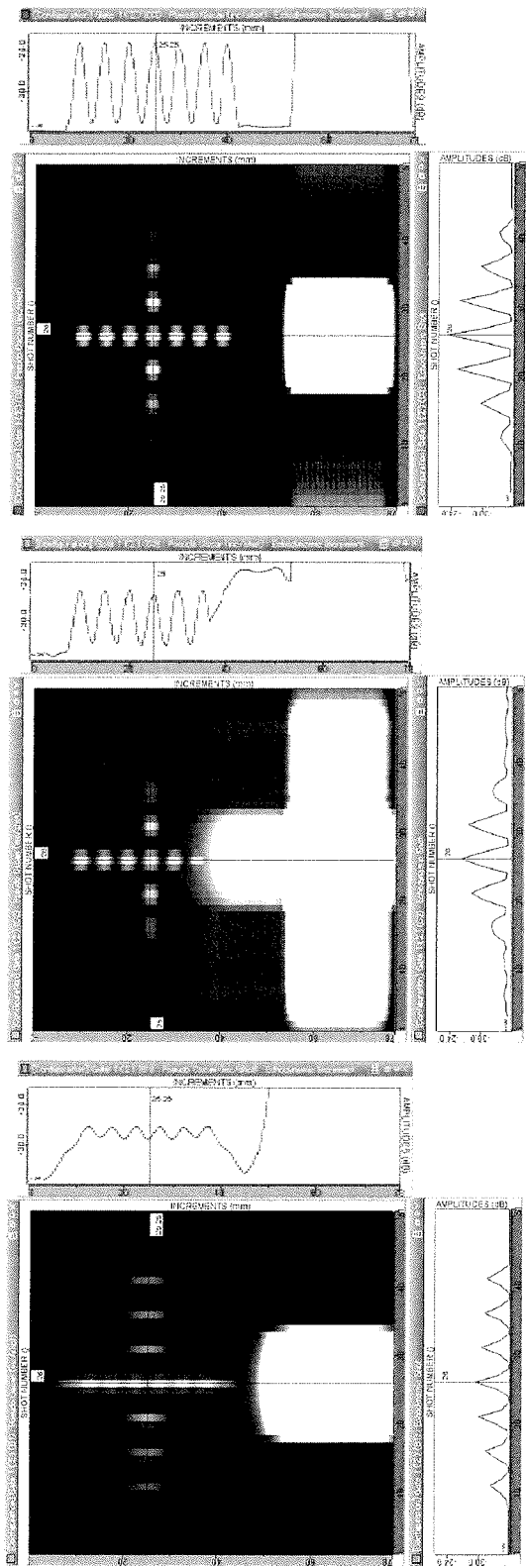


[Fig. 15]

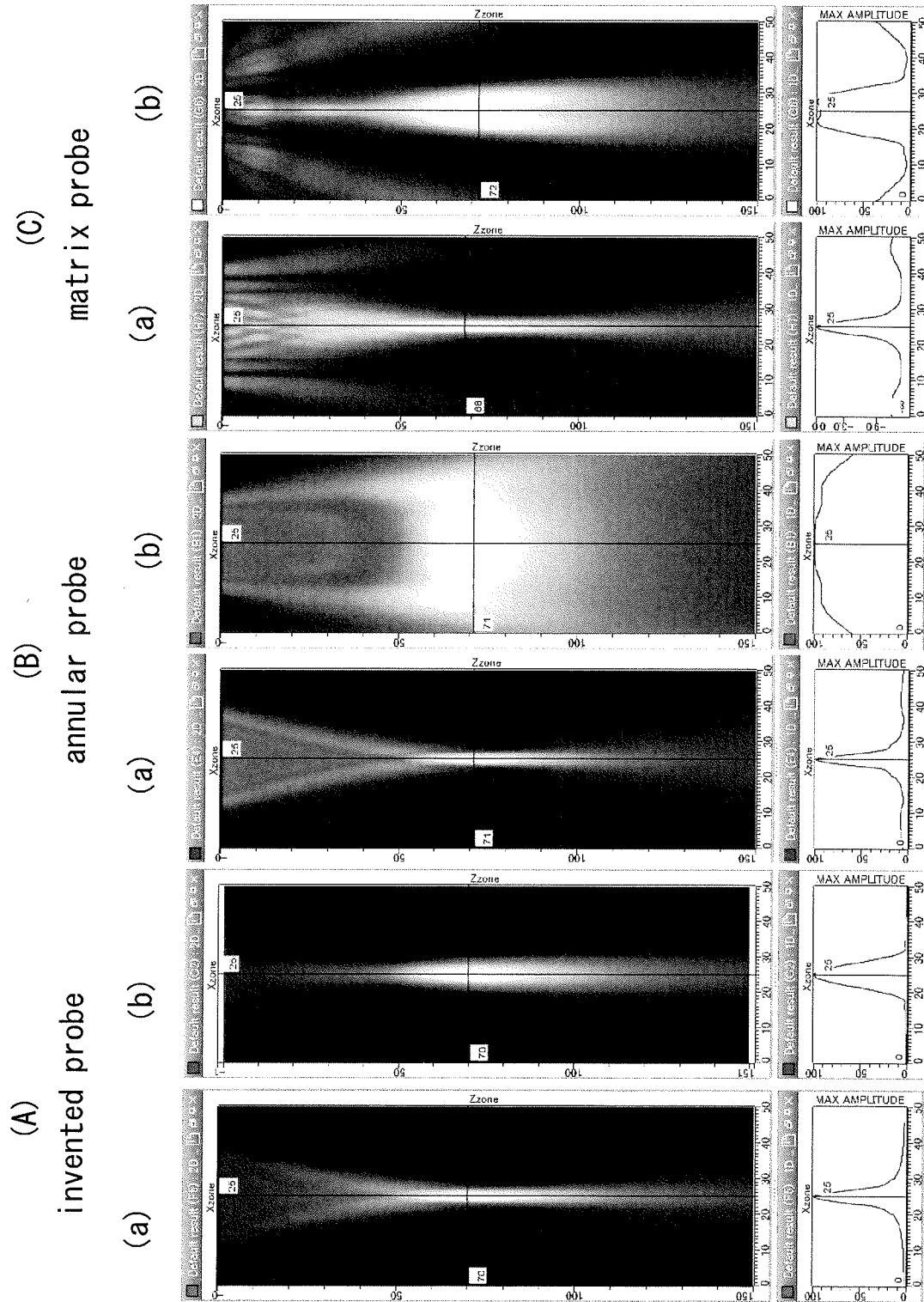
(A) linear probe

(B) matrix probe

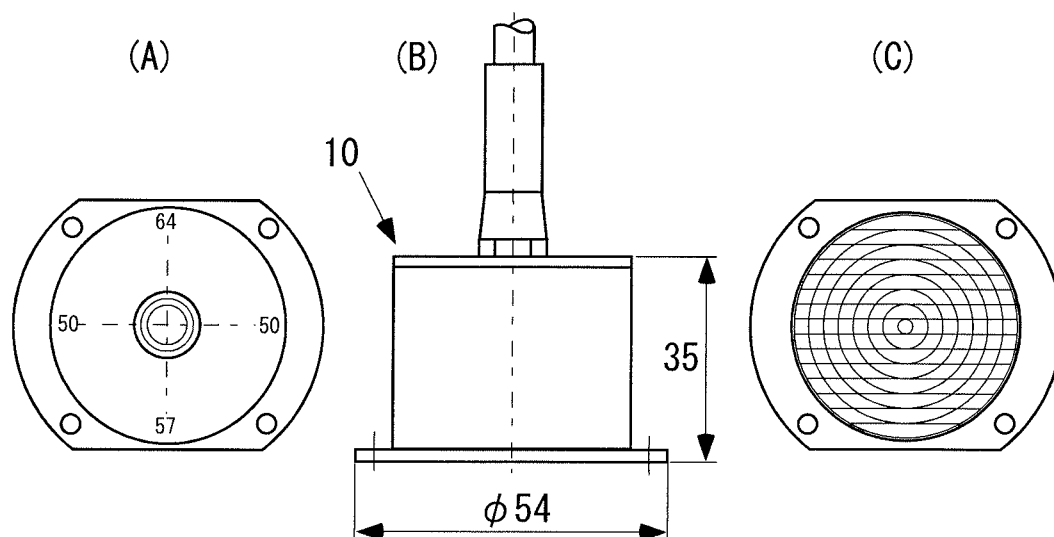
(C) invented probe



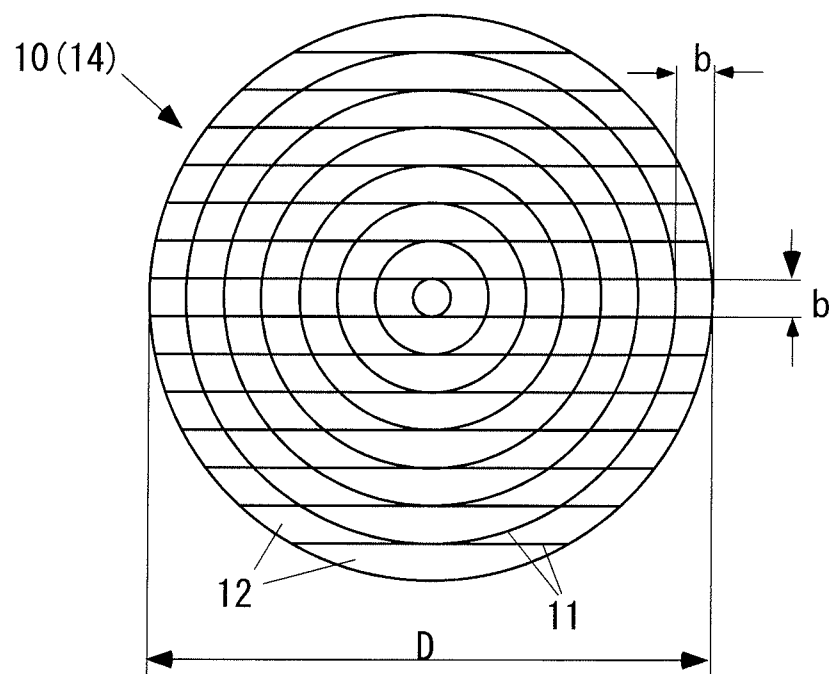
[Fig. 16]



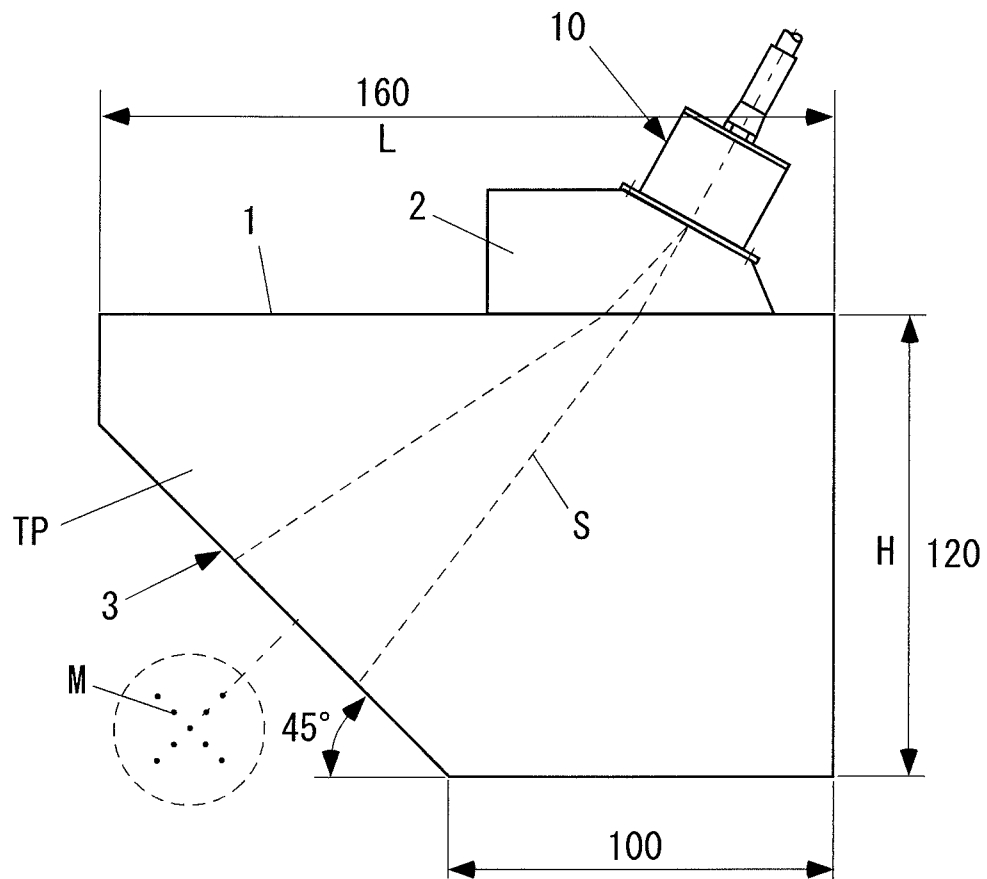
[Fig. 17]



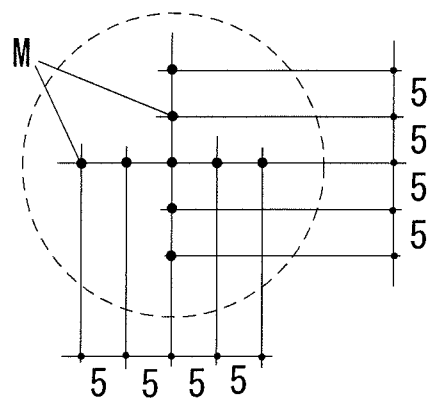
[Fig. 18]



[Fig. 19A]

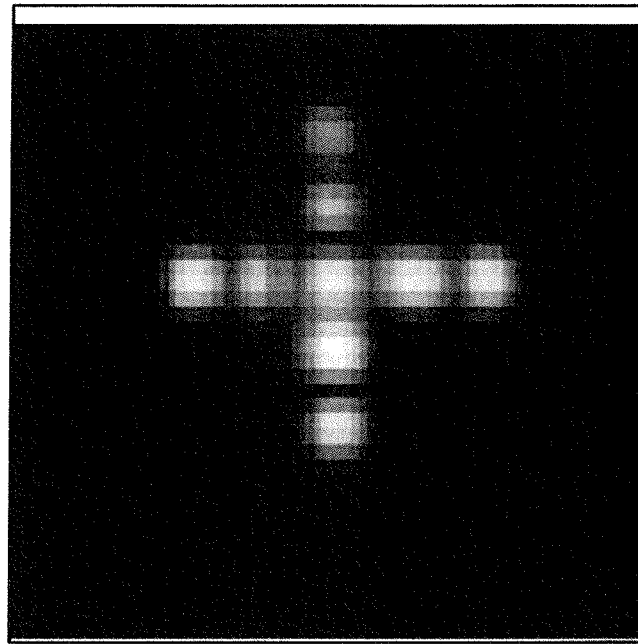


[Fig. 19B]



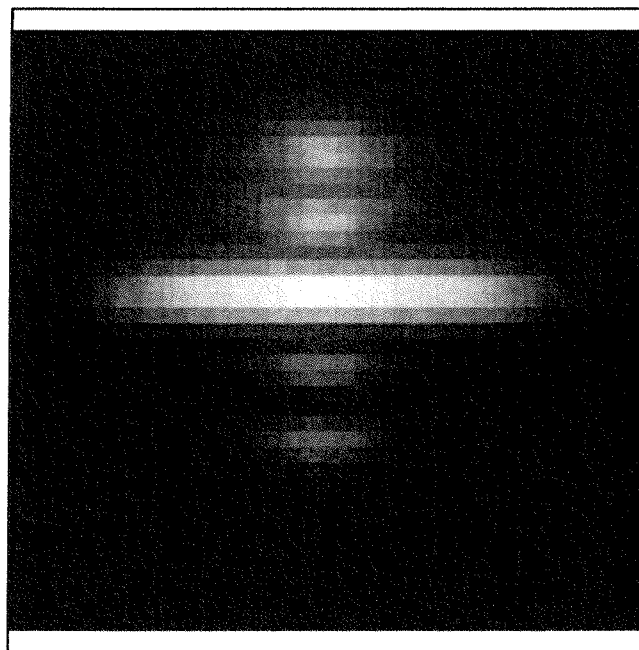
[Fig. 20]

(A)

Angle($^{\circ}$)

Scanning(mm)

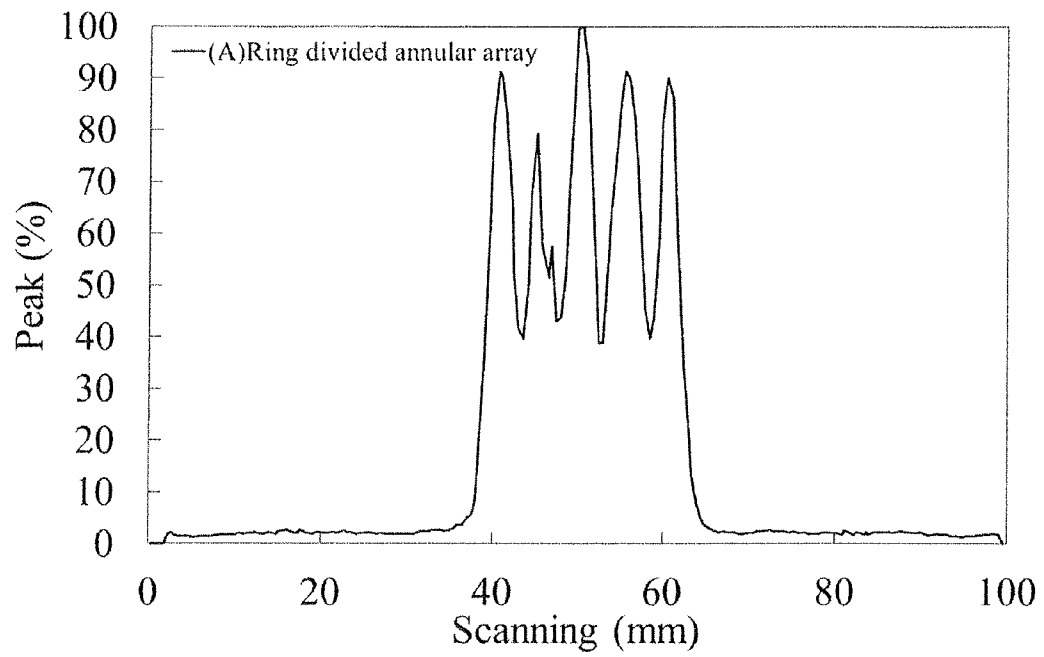
(B)

Angle($^{\circ}$)

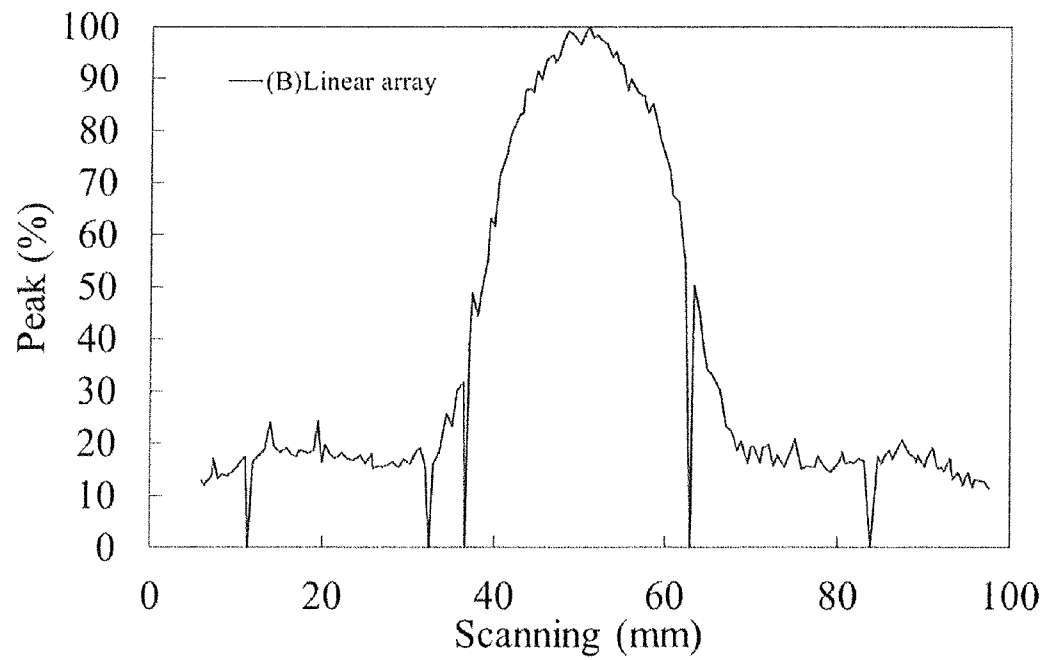
Scanning(mm)

[Fig. 21]

(A)

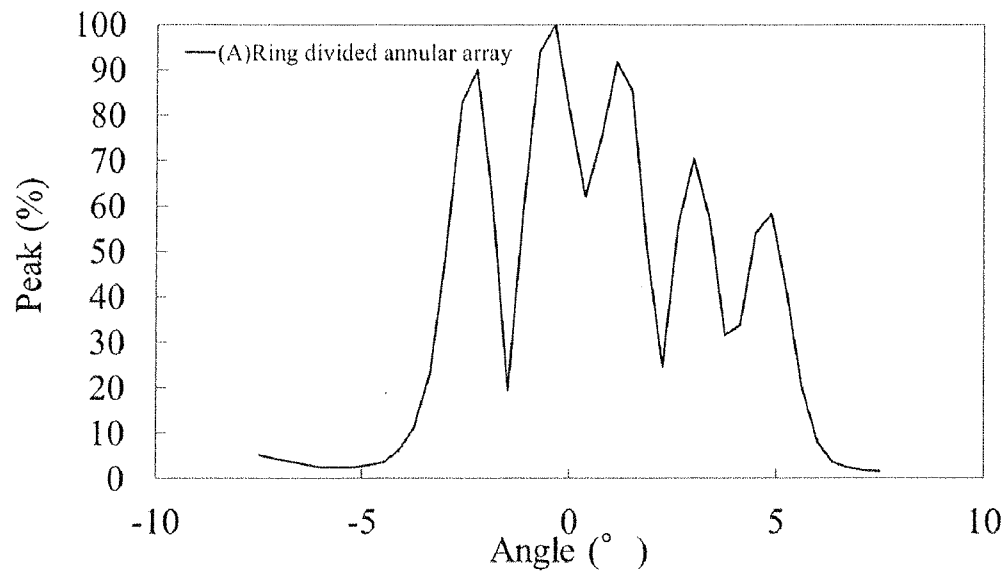


(B)

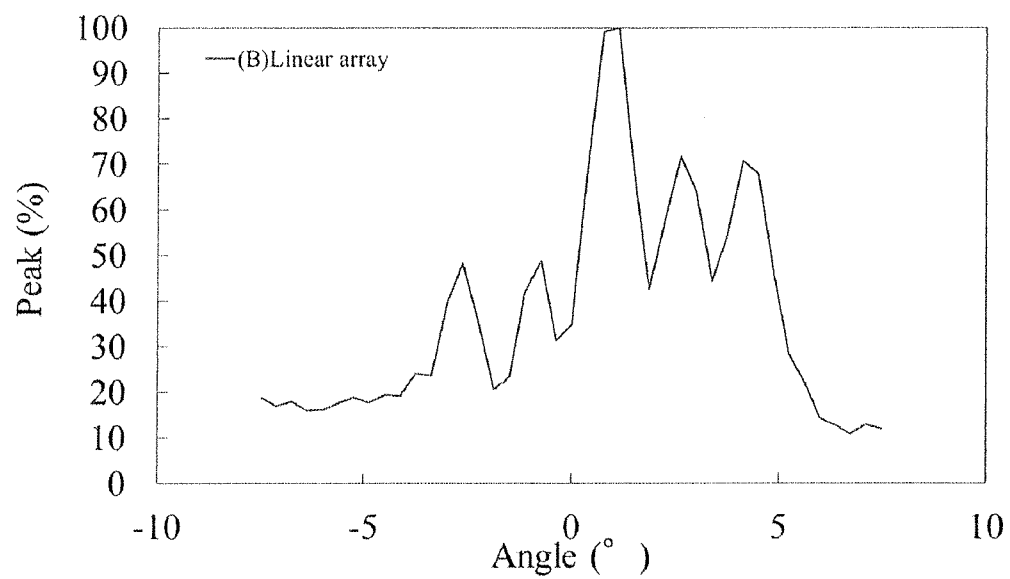


[Fig. 22]

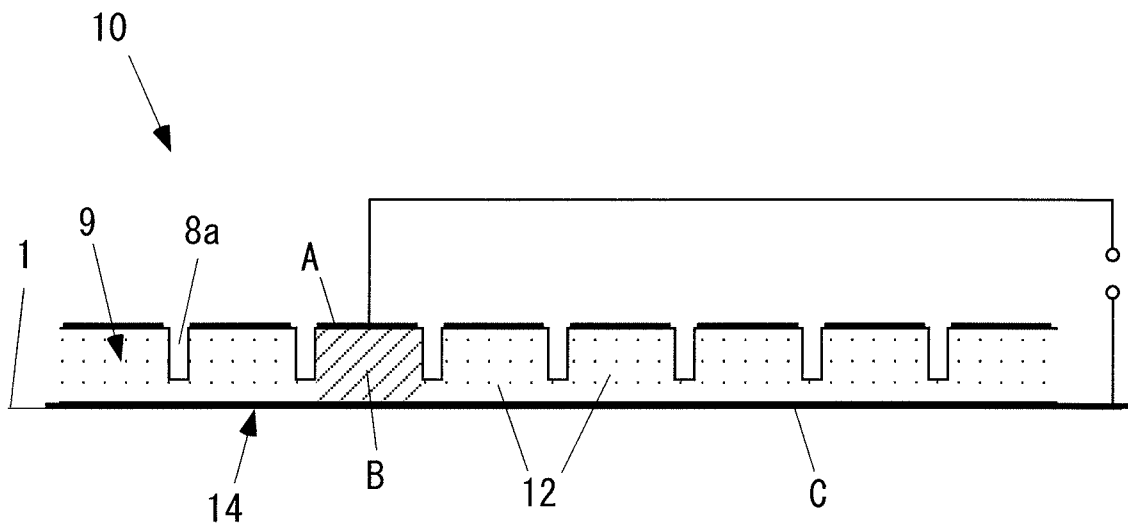
(A)



(B)



[Fig. 23A]



[Fig. 23B]

