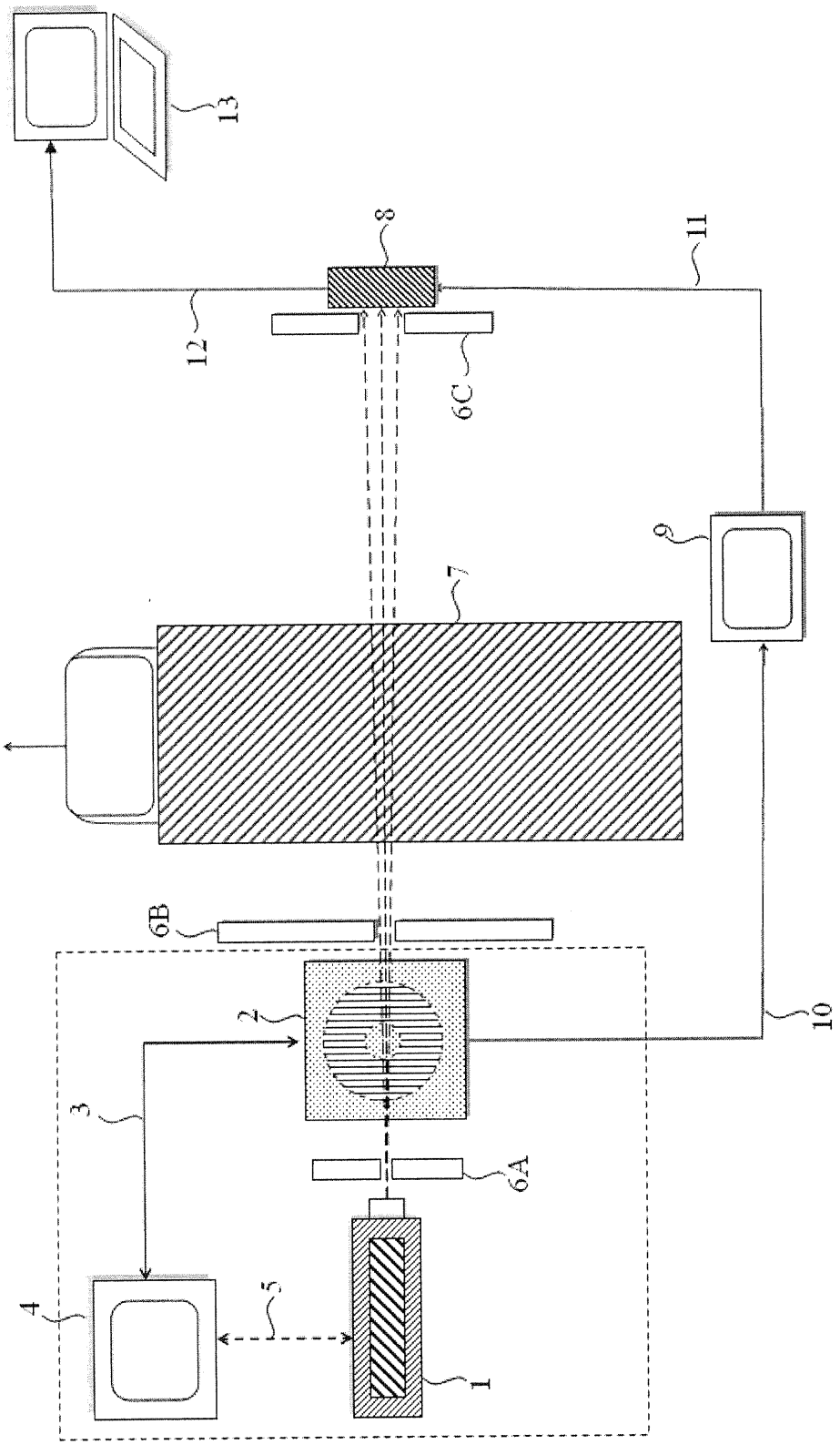


Fig. 1

Fig. 2

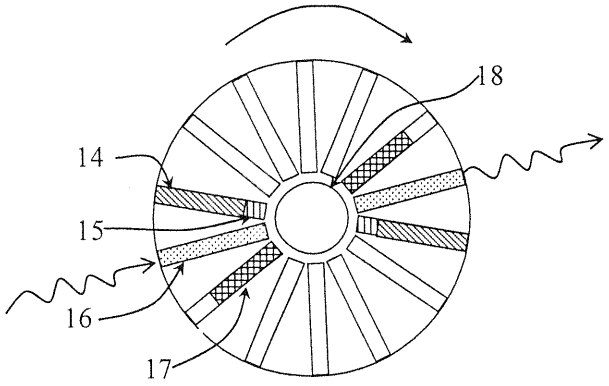


Fig. 3

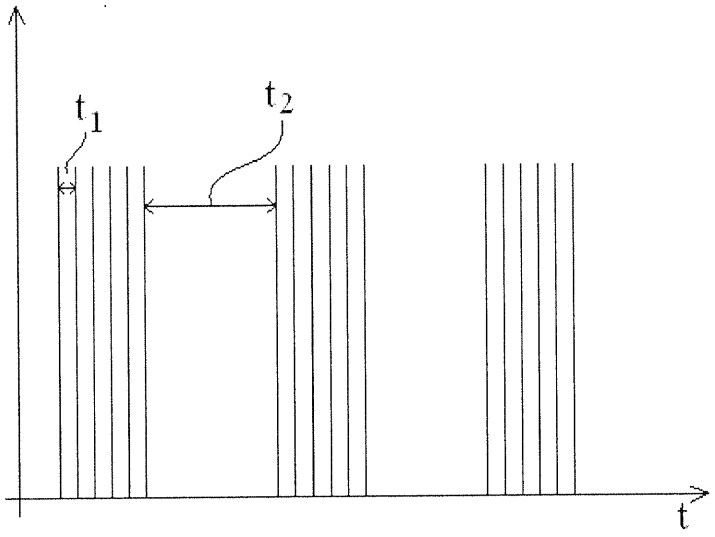


Fig. 4

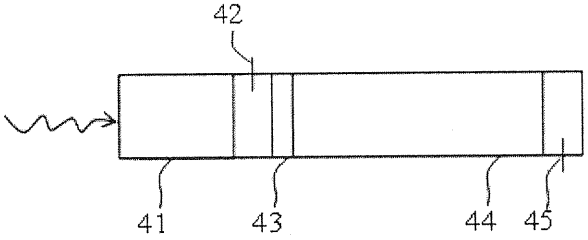


Fig. 5

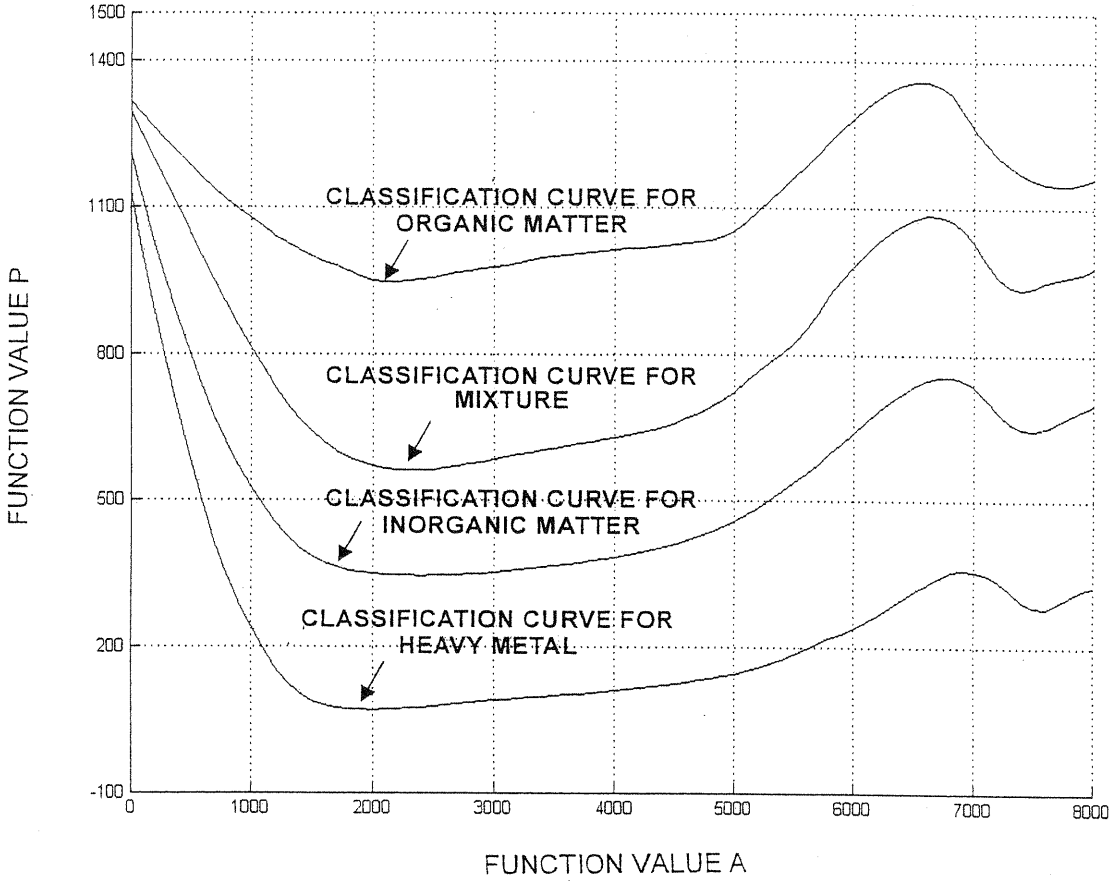

1500
1400
1100
800
500
200
-100
0
1000
2000
3000
4000
5000
6000
7000
8000
FUNCTION VALUE P
FUNCTION VALUE A
CLASSIFICATION CURVE FOR ORGANIC MATTER
CLASSIFICATION CURVE FOR MIXTURE
CLASSIFICATION CURVE FOR INORGANIC MATTER
CLASSIFICATION CURVE FOR HEAVY METAL

Fig. 6

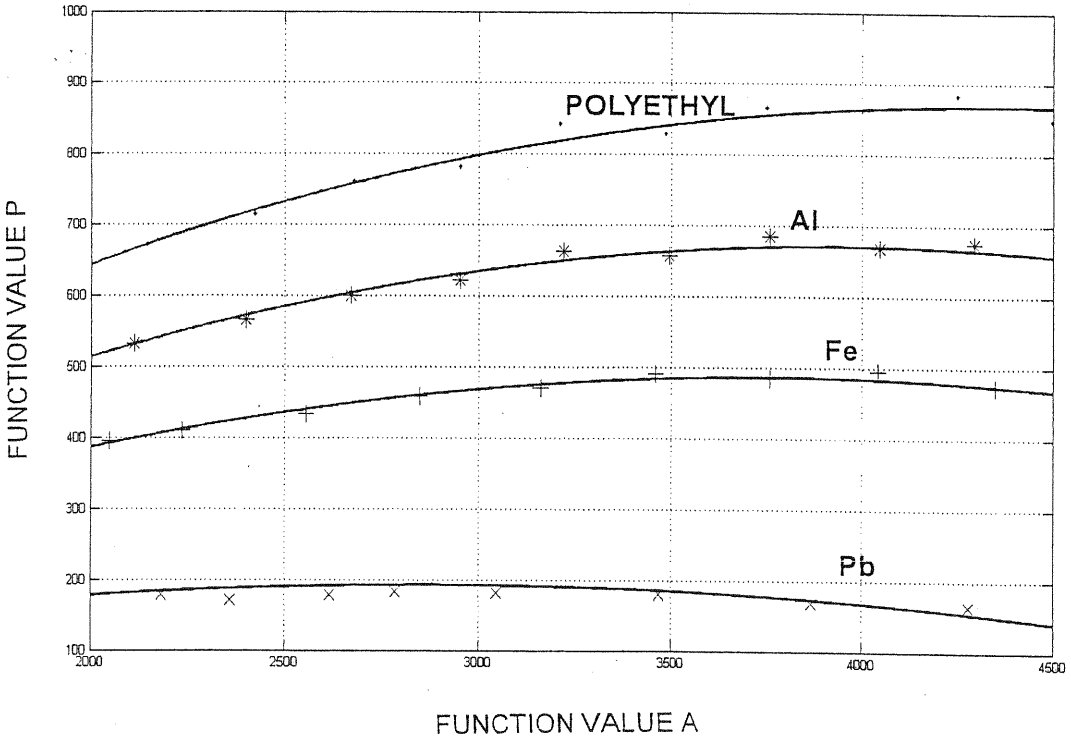

1000
900
800
700
600
500
400
300
200
100
2000
2500
3000
3500
4000
4500
FUNCTION VALUE P
FUNCTION VALUE A
POLYETHYL
Al
Fe
Pb

Fig. 7

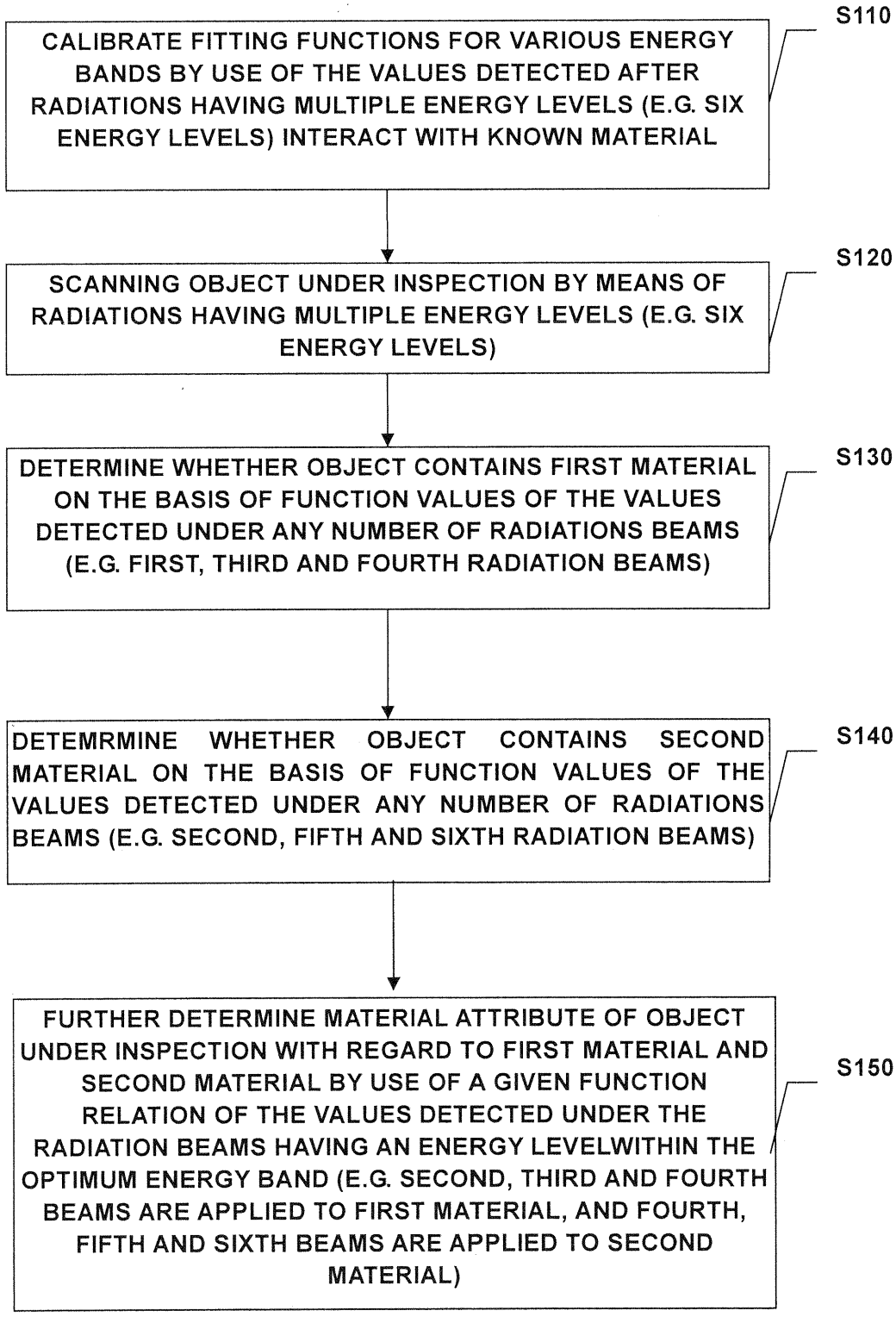
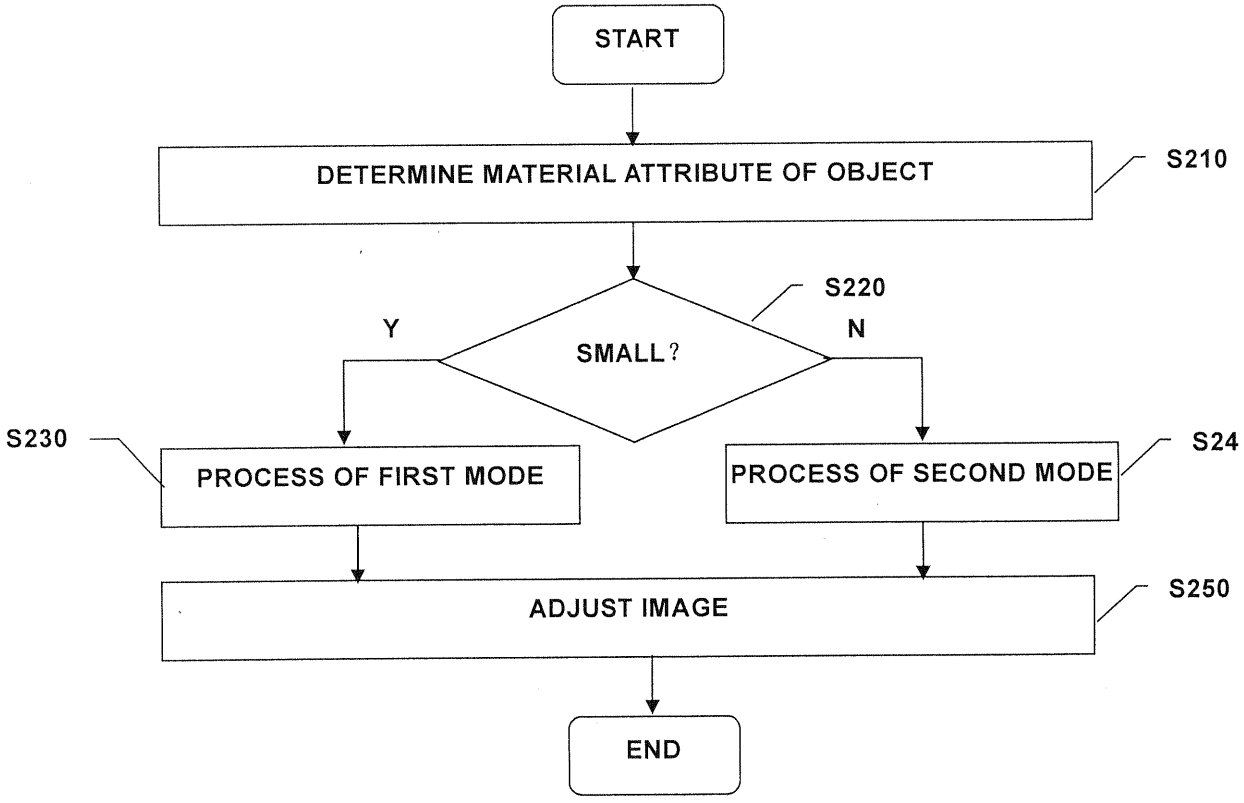

S110
CALIBRATE FITTING FUNCTIONS FOR VARIOUS ENERGY BANDS BY USE OF THE VALUES DETECTED AFTER RADIATIONS HAVING MULTIPLE ENERGY LEVELS (E.G. SIX ENERGY LEVELS) INTERACT WITH KNOWN MATERIAL
S120
SCANNING OBJECT UNDER INSPECTION BY MEANS OF RADIATIONS HAVING MULTIPLE ENERGY LEVELS (E.G. SIX ENERGY LEVELS)
S130
DETERMINE WHETHER OBJECT CONTAINS FIRST MATERIAL ON THE BASIS OF FUNCTION VALUES OF THE VALUES DETECTED UNDER ANY NUMBER OF RADIATIONS BEAMS (E.G. FIRST, THIRD AND FOURTH RADIATION BEAMS)
S140
DETEMRMINE WHETHER OBJECT CONTAINS SECOND MATERIAL ON THE BASIS OF FUNCTION VALUES OF THE VALUES DETECTED UNDER ANY NUMBER OF RADIATIONS BEAMS (E.G. SECOND, FIFTH AND SIXTH RADIATION BEAMS)
S150
FURTHER DETERMINE MATERIAL ATTRIBUTE OF OBJECT UNDER INSPECTION WITH REGARD TO FIRST MATERIAL AND SECOND MATERIAL BY USE OF A GIVEN FUNCTION RELATION OF THE VALUES DETECTED UNDER THE RADIATION BEAMS HAVING AN ENERGY LEVELWITHIN THE OPTIMUM ENERGY BAND (E.G. SECOND, THIRD AND FOURTH BEAMS ARE APPLIED TO FIRST MATERIAL, AND FOURTH, FIFTH AND SIXTH BEAMS ARE APPLIED TO SECOND MATERIAL)

Fig. 8


START
DETERMINE MATERIAL ATTRIBUTE OF OBJECT
S210
S220
SMALL?
Y
N
S230
PROCESS OF FIRST MODE
PROCESS OF SECOND MODE
S24
ADJUST IMAGE
S250
END