

X光機簡述

楓展貿易有限公司 製作



X光產生器的種類

- 2 Peak X-ray(全波整流式X光機)
- Inverter H.F X-ray(高頻式X光機)
- Capacity X-ray(電容式X光機)

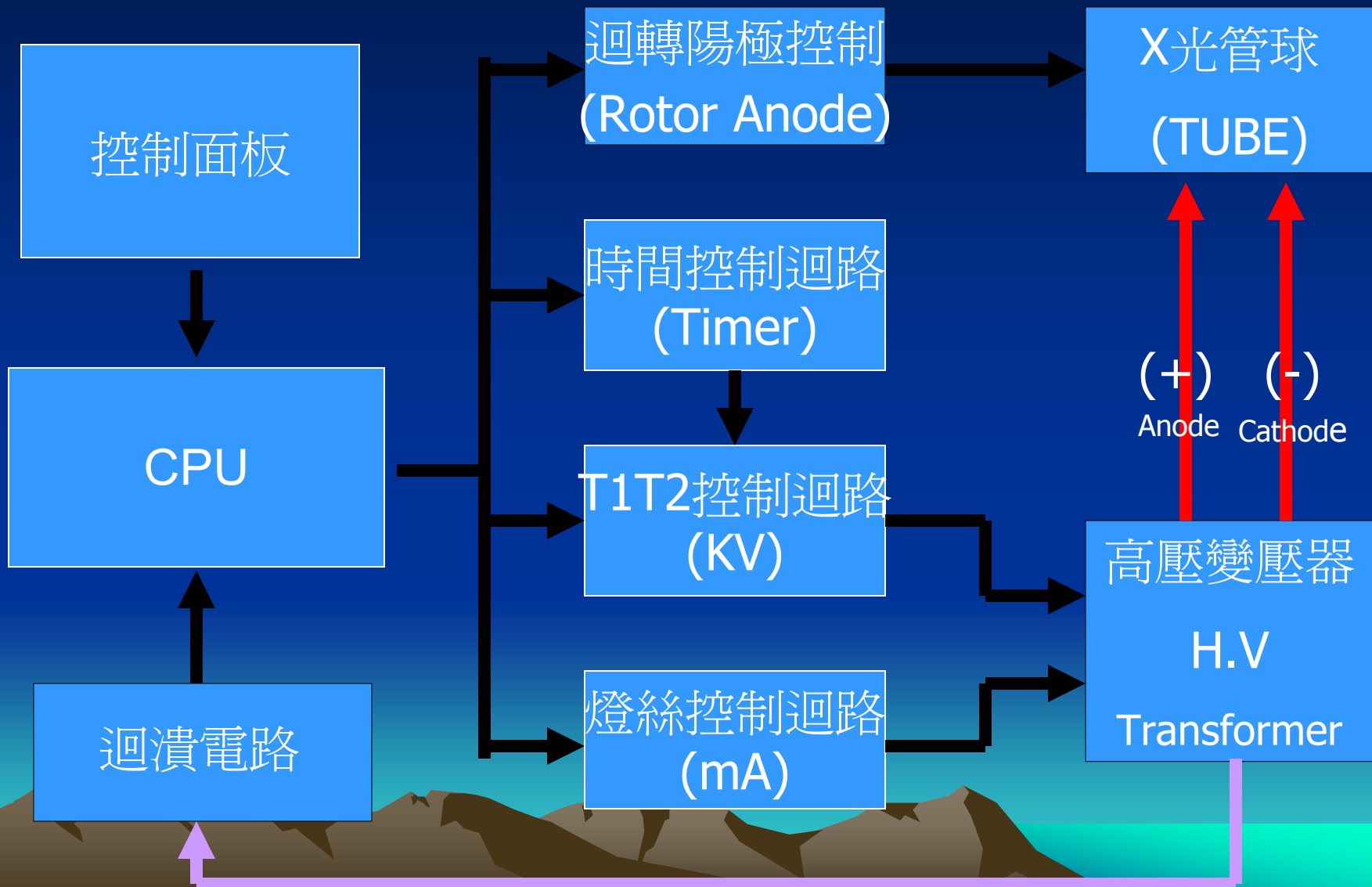


X光機的組合

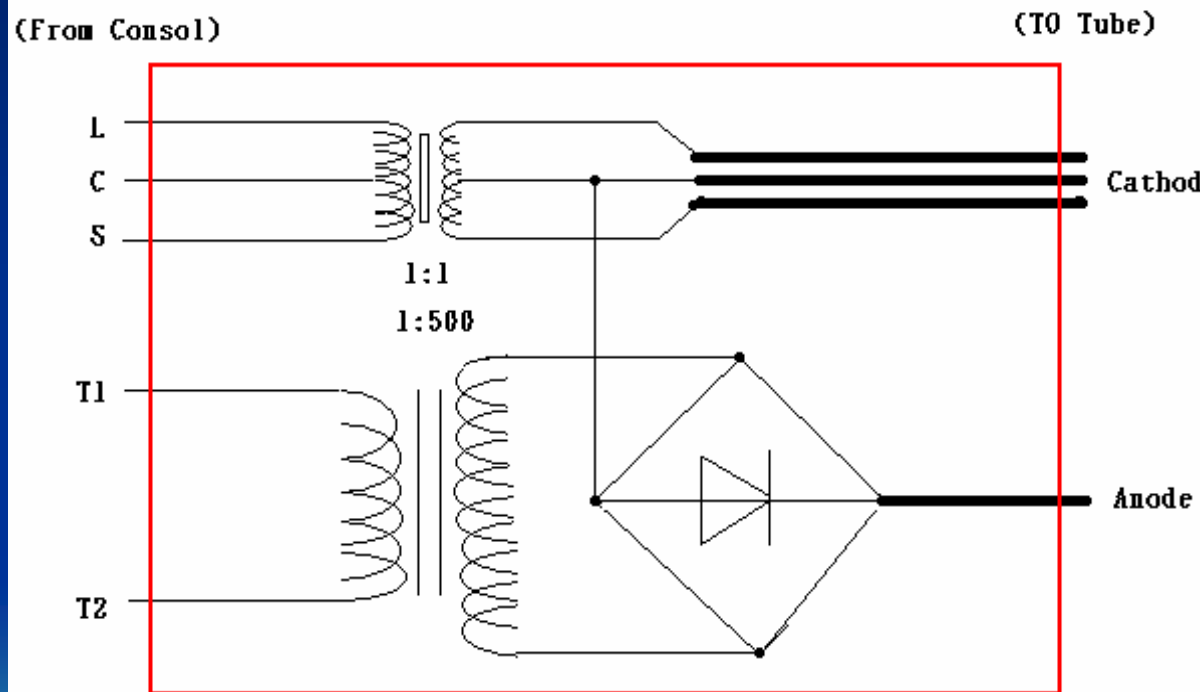
1. X-ray control consol (X光機控制台)
2. H.V Transformer (高壓變壓器)
3. X-ray Tube (X光管球)
4. H.V Cable (高壓電纜)
5. Collimator (準直儀)(X光束線器)
6. X-ray Grid (X光鉛柵板)
7. Image Intensifier (X光影像增強器)
8. XTV System (X光影像系統)



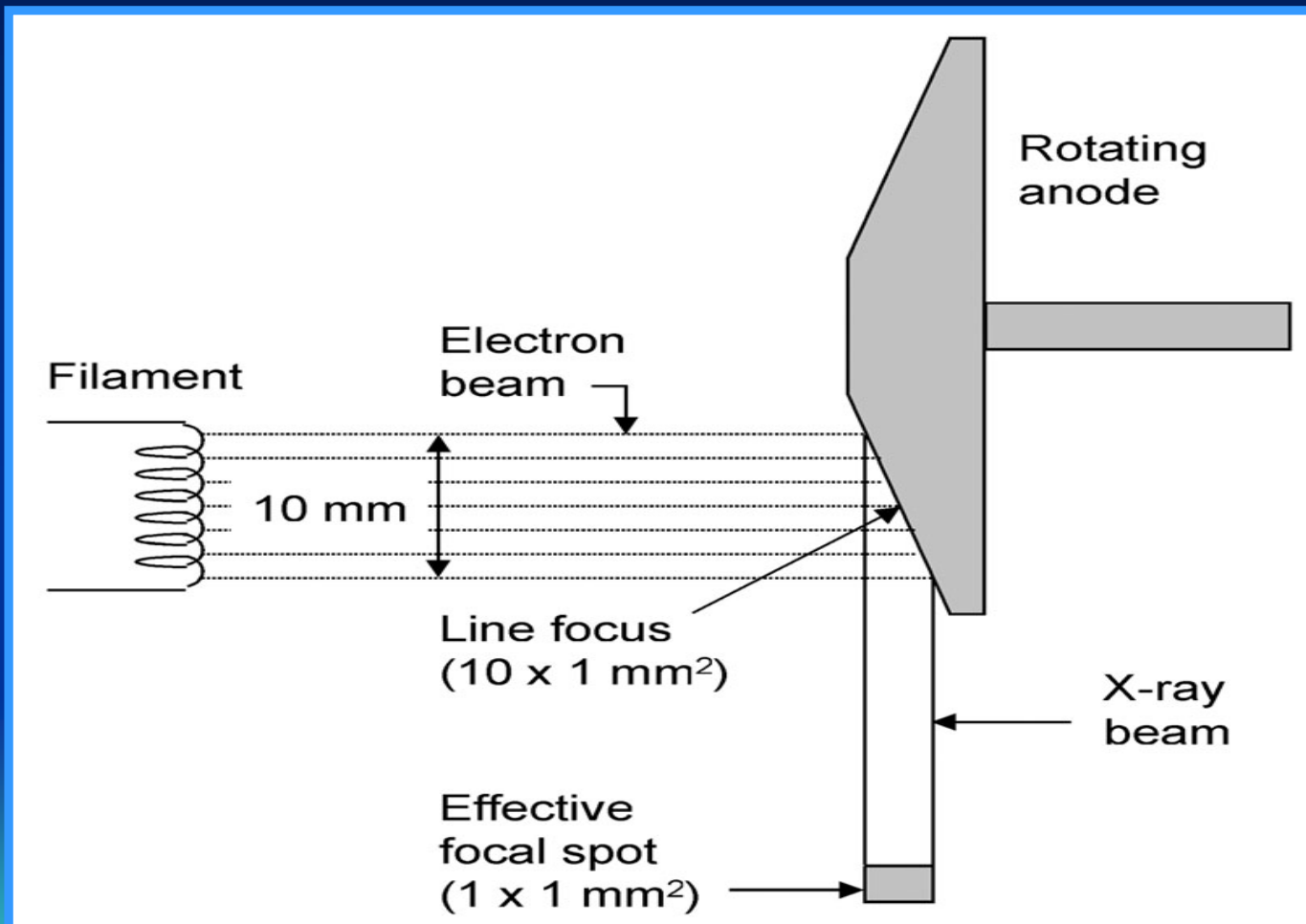
1.X-ray control (X光機控制)



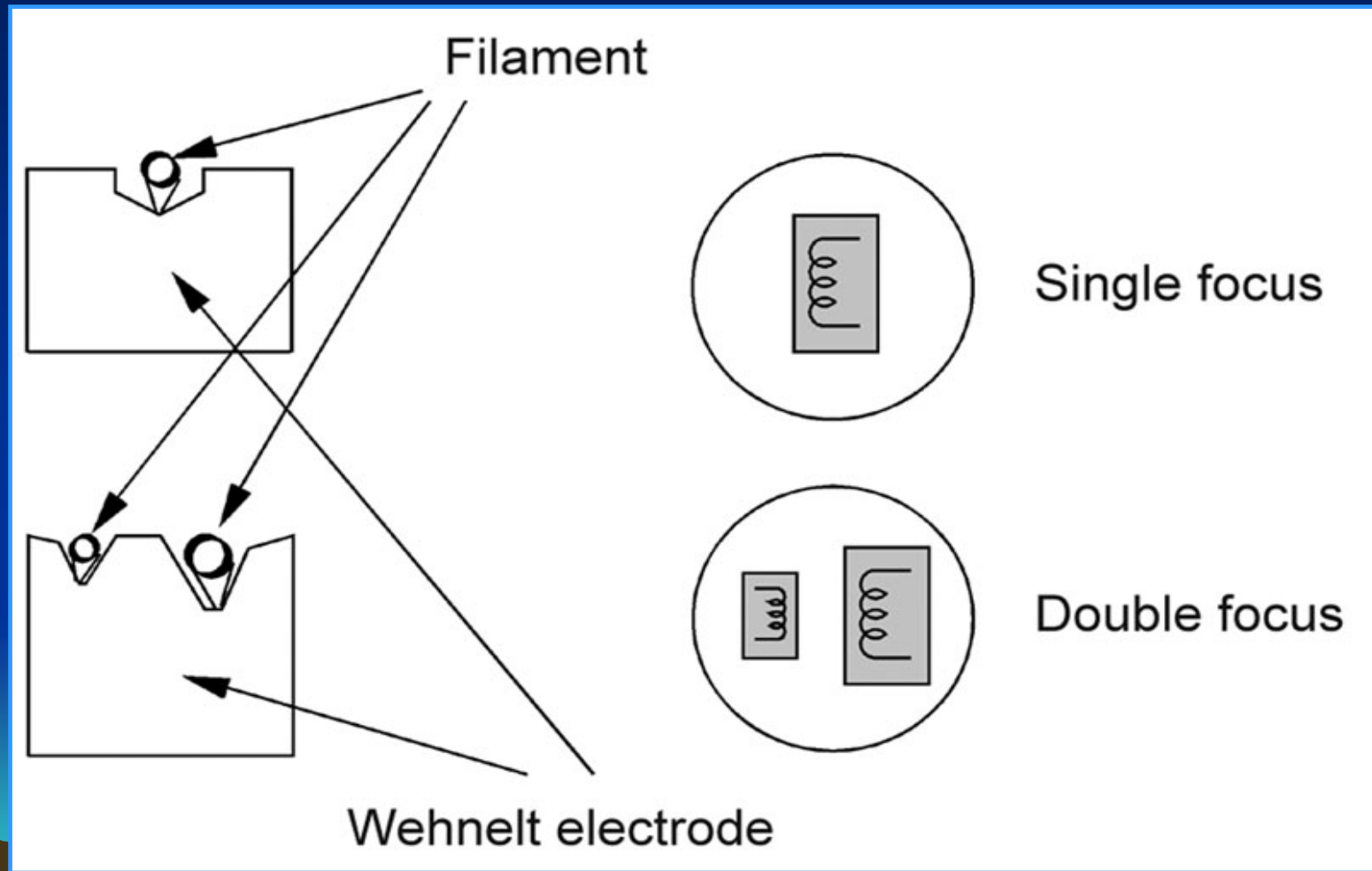
2.H.V Transformer (高壓變壓器)



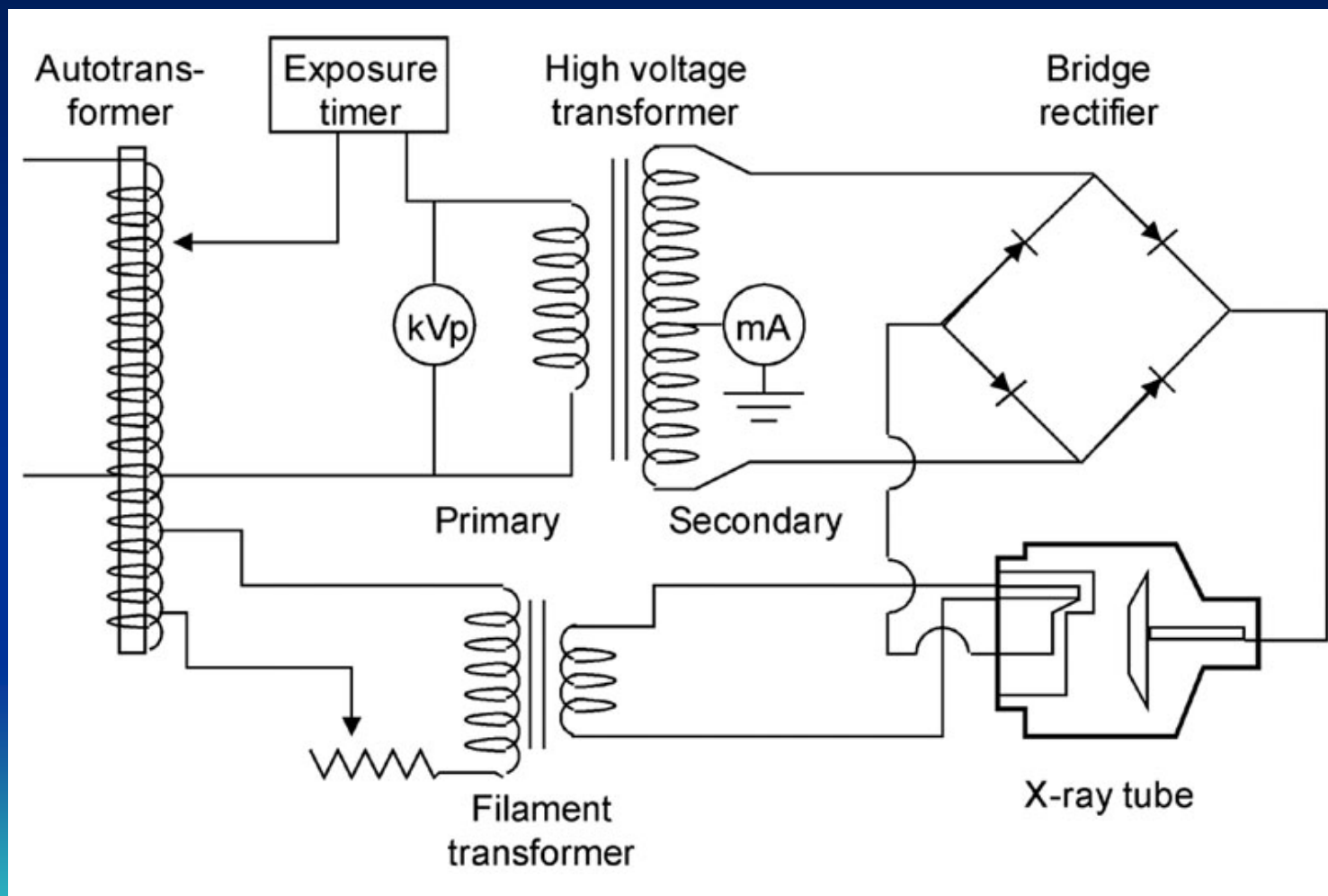
3.X-ray Tube (X光管球) I



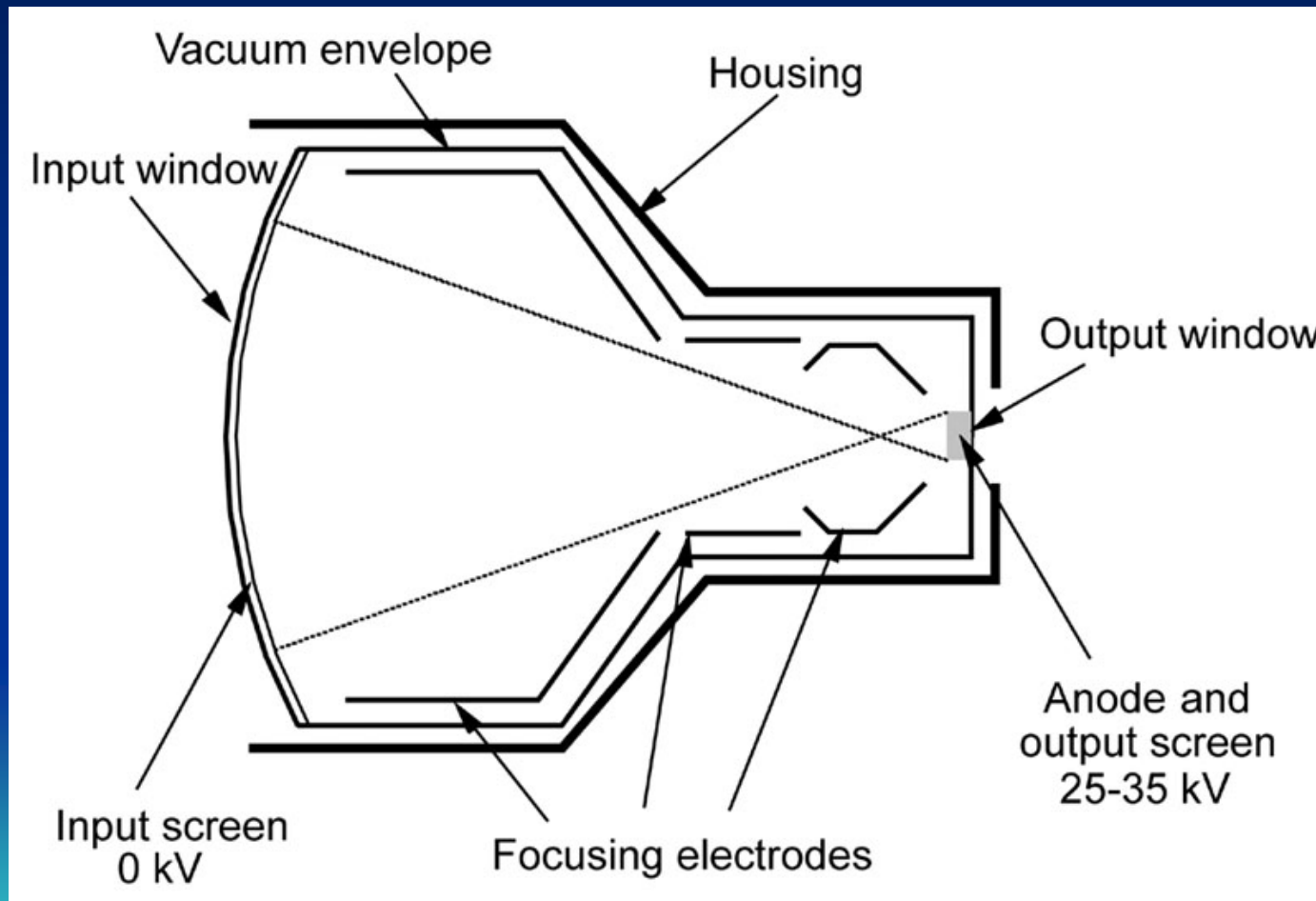
3.X-ray Tube (X光管球) II



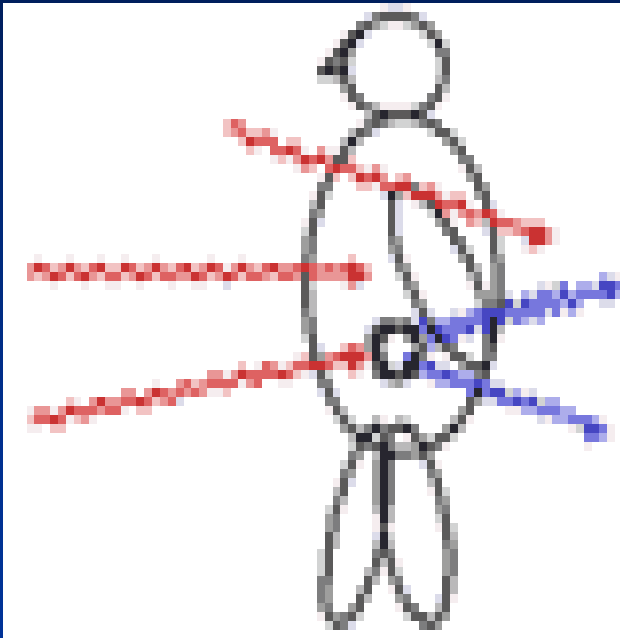
4.X光控制



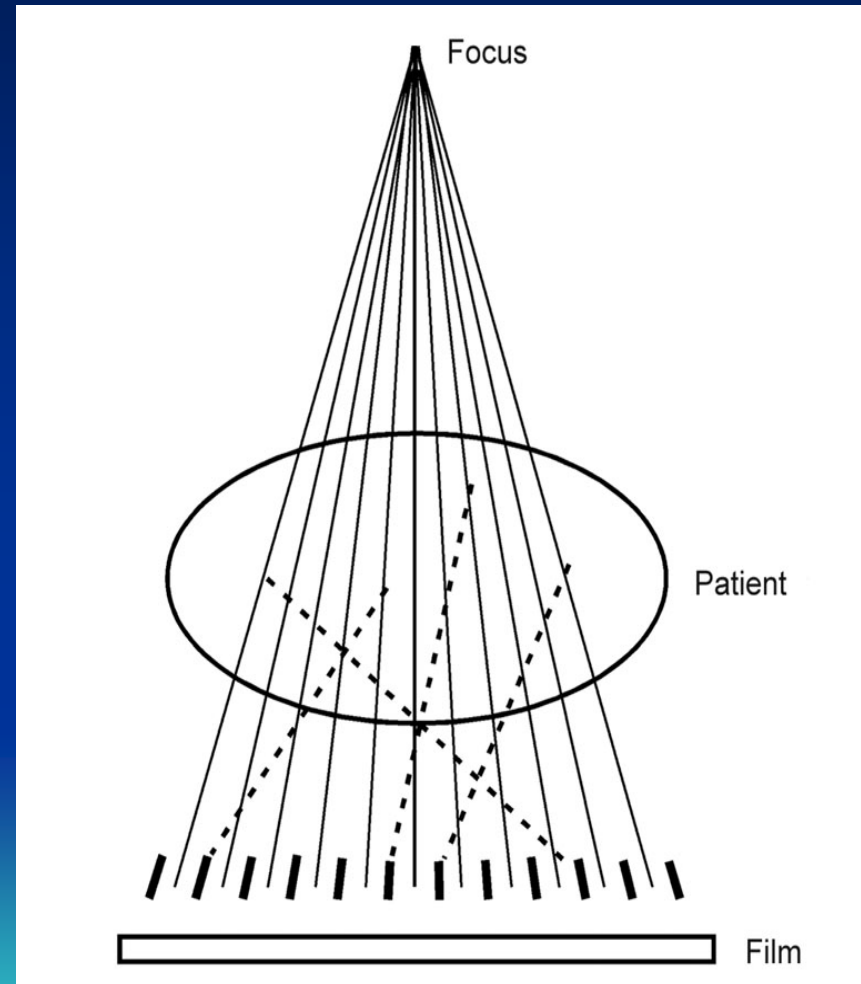
5. 影像增強器 (Image Intensifier)



6. X-ray Grid (X光鉛柵板)I



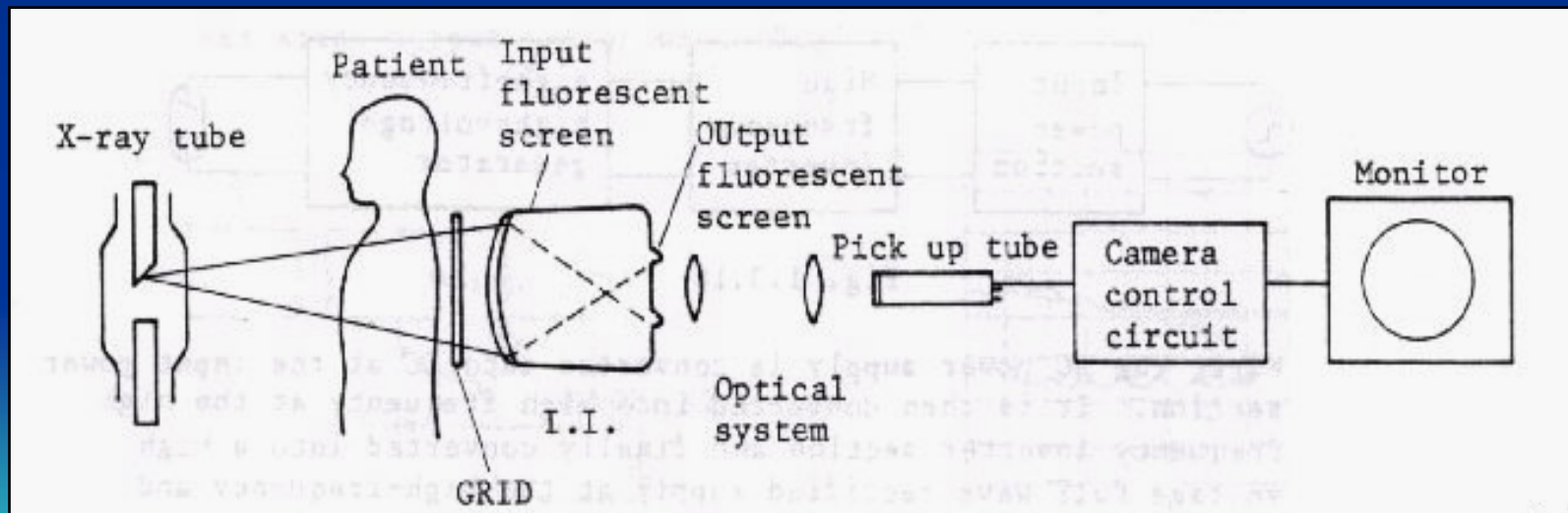
- * Absorption
- * Scatter
- * Penetration



6.X光之影像產生

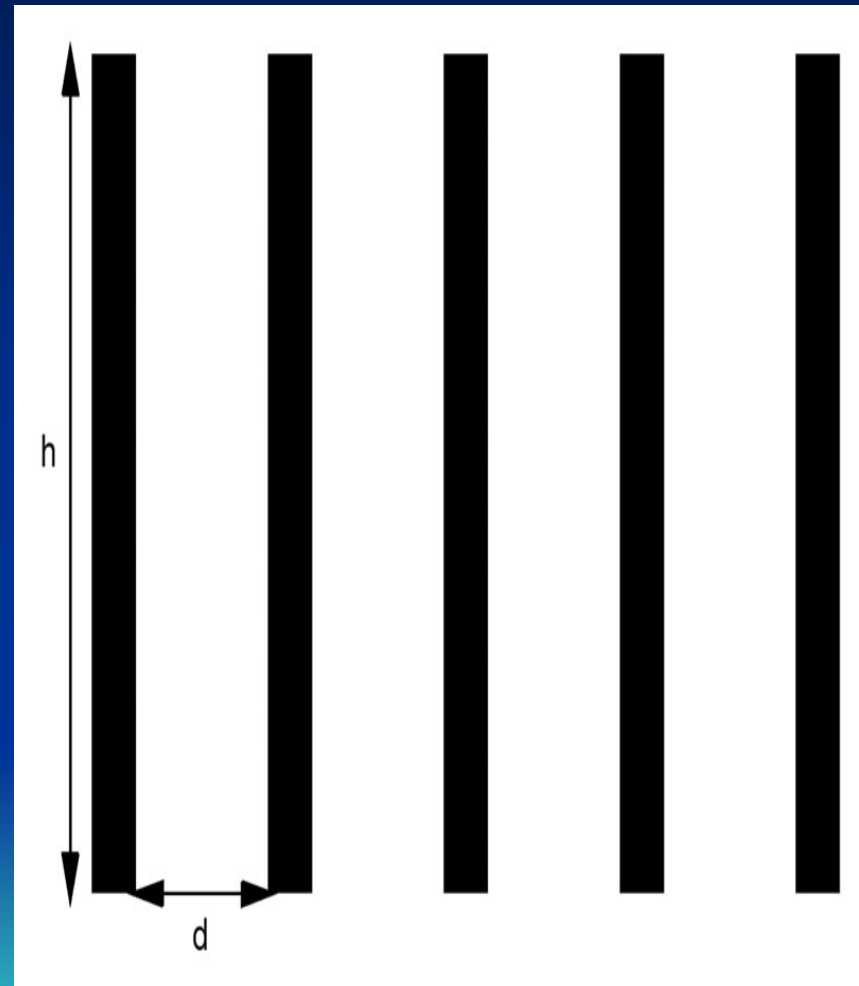
(1).X-ray Tube → body → intensify screen → (film).

(2).X-ray tube → body → I.I. → CCD camera →
(Monitor)



6. X-ray Grid (X光鉛柵板)II

- (1) Ratio , reduction of scattered radiation
- (2) range (5 ~15).
- (3) higher grid ratios → higher kVps
lower ratios → lower kVps.
- **Density:**
- **The grid ratio = h/d .**
- (1) Number of strips per cm (30 ~40).
- (2) The highest :60-70.
- (3) Focal : 100-200cm



X光機基本動作

1. **Power ON:**

- ◆ Auto Check OK
- ◆ Filament Pre-Heating .

2. **Hand SW I step :**

- ◆ Rotor Anode : Boosting(0.5s) → Running
- ◆ Filament : Heating
- ◆ Bucky moving X-ray Tube

3. **Hand SW II step:**

- ◆ Timer ON : X-ray emit
- ◆ Timer OFF : X-ray emit end

4. **Hand SW Release :**

- ◆ Timer Reset
- ◆ Bucky stop

X光機的種類

1. 一般診斷型X光機.(Diagnostic X-ray)
2. 乳房攝影X光機.(Mammography)
3. 遙控透視型X光機.(Remote Control)
4. 移動型X光機.(Mobile X-ray)
5. C臂型X光機.(C-arm X-ray)
6. 血管攝影X光機.(Angio-graph X-ray)

