

# Image intensifiers, optical and television systems

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- A. Image intensifiers
  - 1. Design
    - a. Input phosphor
    - b. Photocathode
    - c. Accelerating potential
    - d. Electron optics
    - e. Anode
    - f. Output phosphor
  - 2. Operation
  - 3. Gain
    - a. Brightness gain
      - i. Minification gain
      - ii. Flux gain
    - b. Conversion factor
  - 4. Image quality
    - a. Statistical consideration
    - b. Contrast
    - c. Resolution
    - d. Distortion
  - 5. Dual- and three-field intensifiers
  - 6. Automatic brightness control
    - a. Reasons for
- b. Methods
  - i. mamp control
  - ii. kV control
  - iii. Pulse width control
  - iv. Combinations
  - c. Use and problems
- B. Viewing (optical and television systems)
  - 1. Systems
    - a. Mirror optics
    - b. Television
      - i. Camera tubes
      - ii. Monitors
    - c. Biplane systems and associated problems
  - 2. System evaluation
    - a. Description
    - b. Resolution and contrast
    - c. Patient exposure
    - d. Advantages and disadvantages