Date:

Day: M T W T F S S

Name Saad Ullah

ID 14996

Paper General Radiology

Date 24-08-2020

Mid Term Summer 2020

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Answer 03:-

Construction of Radiographic film:-

The Construction and characteristic of Radiographic film are similer to those of ragular photographic film.

Radiographic film is made of with rigorous quality Control and has a Spectral responce different from that of photographic film. So that it mechanisam of operation is ~~Sent~~ Same.

Radiographic film :-

Radiographic film has two parts.

The base and the emulsion.

In most x-ray film the emulsion is ~~cotta~~ coated on both side. So that it is called ~~dubal~~ double emulsion film. Between the emulsion and the base is a thin coating of material called the Adhesive layer. The Adhesive layer allow the emulsion and the base to maintain proper contact and Integrety during use and processing. The emulsion is in closed by a protective covering of gelatin called the over coat.

This over coat protect the emulsion from scarachies pressure and contamenation during handling processing and

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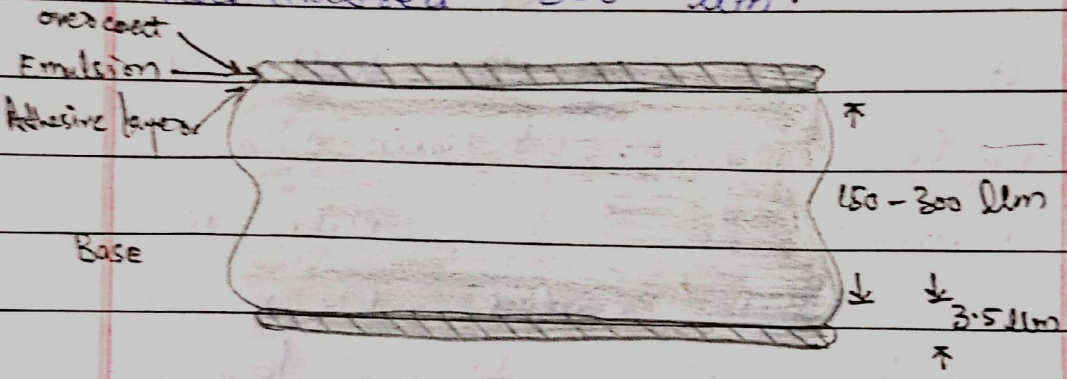
Storages:

The thickness of radiographic film is about one fifty 150 to Three Hundred 300 μm.



Radiographic film:

Remnant Radiation:

That Interact with the x-ray film. Few of the original x-ray actually make the Image. The remnent radiation is the Image forming radiation that passes completly through the patient.

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X-ray film Cossection.

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Answer 02 :-

Latent Image formation :-

A latent Image is an invisable Image produced by the exposure to light of a photo sensitive meterial. Such as photographic film. When photographic film is ~~firsfe~~ developed the area that was expose takens and form a visible Image. In the early days of photographing the Nature of the invisable change in the silver halide ~~the~~ coated of the film ~~Imag~~ emulsion coating was unknown So the a Image was treated with

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Photographic ~~det~~ developer: In more physical term a ~~latente~~ ~~image~~ latent image is a small cluster of metalic silver atom formed in or on a silver halite crystal due to reduction of Interstitial ~~silver~~ silver ion by photoelectron a (photolytic silver cluster): If Intence exposure continue such photolytic silver clusters. Grow to visible ~~sized~~ sizes. This called printing out the Image on the other hand the formation of the visible Image by the action of photographic ~~det~~ developer is called ~~Developer out~~ ~~[illegible]~~ Developing out the Image.

Answer Q1:

	Calcium tungstate Screen	Rare Earth Screen
*	This was the original Material used but it is no longer recommended.	Have higher DQT (Detective Quantum effjiciency). Higher x-ray absorption Abilities.
*	The Speed of these Screen depend upon:	
1-	The thickness of the Phosphor crystal layer	Have higher CE (Conversion efficiency)
2-	to the Size of the Phospho crystal.	More light emitted per x-ray absorbe by the Screen.
3-	The presence of absence of light absorving dyes with in the Screen.	These material Possess Great Quantum detection efficiency (the abelity to Interact with x-ray)
4-	The conversion effjiciency of the crystal.	Great Conversion efficiency the ability of Screen to Convert x-ray Energy into light energy.
⇒	All calcium tungstate Screen emit blue light. And must be used with blue light Sensitive monochromatic Radiographic film.	

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Slower than zagex earth Screen.	Rare Earth Screen Heighes than Calcium tungstate Screen.

Thank You