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Effects of Irradiated Oils on Photographic Films

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EFFECTS OF IRRADIATED OILS ON PHOTOGRAPHIC FILMS

JAY W. WOODROW AND A. C. BAILEY

(ABSTRACT)

During the past two years, there has been considerable discussion on the question of the emission of ultra-violet light by cod-liver oil. Our experiments have confirmed the opinion that no radiations are emitted which can penetrate plates of fused quartz one millimeter in thickness. However, an image is produced on a photographic film placed directly above the oil, an effect which is attributed to a direct chemical action.

We have also found that other oils which would not produce images on the photographic film can be activated by ultra-violet light so that they act like cod-liver oil. Different oils can be activated in different degrees, which is similar to the results obtained with the production of antirachitic properties in them by ultra-violet light.

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THE DIELECTRIC PROPERTIES OF SOME CRYSTALS
AT RADIO FREQUENCIES

A. A. AARDAL

(ABSTRACT)

An attempt has been made to study the dielectric properties of a few crystals at radio frequencies ranging between 50 and 3000 kilo-cycles per second.

The properties studied are phase difference, dielectric constant, capacity, resistance, and power factor.

It is found that the dielectric constant, the electrical capacity and resistance decreases with the increase in frequencies of electrical oscillation, and that the phase difference and power factor increase with increase in frequencies.

Some of the crystals used as specimen are: Rock Salt, Gypsum, Strontium Sulphate and Calcium Carbonate, etc. A further study was contemplated to connect up the crystal structure with these dielectric properties, but so far nothing definite can be stated as to whether these properties have anything to do with the struc-