

## TECHNICAL NEWS

The items appearing in this section were submitted February 16, 1945, by members of the Technical News Committee, who welcome and will consider items of current technical interest from any member of the Society.

Additional information concerning these items, or the equipment and processes discussed, may be obtained by communicating with the General Office of the Society, Hotel Pennsylvania, New York 1, N. Y.

### COLOR

**Technicolor Motion Picture Corp.**—Technicolor is now making 16-mm prints of current studio feature length Technicolor pictures for distribution to the armed forces through the War Activities Committee. These prints are made both by the Kodachrome procedure and by the Technicolor imbibition procedure, the latter being a relatively new development for 16 mm which yields prints approaching the high Technicolor 35-mm quality.

### SOUND

**E. I. du Pont de Nemours & Co.**—The Photo Products Dept. of the duPont Company has recently introduced 2 new fine-grain sound films, types 232 and 236. Both are designed to fit specific needs which have arisen in connection with the change-over from UV to white-light printing of variable-density sound negatives in some of the studios.

Type 232 is a low contrast, fine-grain positive which, white-light printed and processed in standard positive developing solutions, gives very closely the same effective contrast as obtained with fine-grain release stock, UV printed and similarly developed. Current studio practice is to keep production sound negatives at high gamma levels and to employ type 232 for daily and dubbing prints.

In comparison with UV prints on fine-grain release positive, type 232 (white-light printed) shows improved signal-to-noise ratio, equal latitude, and the same or less intermodulation distortion.

Type 236 is a fine-grain recording film with speed sufficiently increased over that of type 226 to meet the exposure requirements for low gamma release negatives.

Intermodulation and listening tests comparing type 236, white-light printed, and type 226, UV printed, with fine-grain release positive, indicate that both combinations are closely equivalent in signal-to-noise ratio, distortion, latitude, and frequency response.

*White Light vs. Ultraviolet.*—Two changes have recently taken place in the handling of most density sound recording products, namely: New fine-grain recording films have been made available by the film manufacturers for white-light printing and the ultraviolet licenses, previously available to most density recording studios, have been canceled.

During the period when sound recording activity was confined to the old "coarse grain" film recording stocks, a slight improvement was effected through the use of ultraviolet light in the printing of the sound record. This quality improvement was later gained through the use of fine-grain films, although ultraviolet light was continued in use in order to gain a lower effective gamma for a given time of film development. The newly developed fine-grain sound recording stocks give this result without the use of ultraviolet light and thus give the laboratories greater exposure latitude in their printing process.

#### STUDIO LIGHTING

The use of the relay condenser system for projecting process plates is rapidly gaining ground in the Hollywood studios. Previously, one of the bottlenecks in background projection was the inability to obtain sufficient screen light to fill a screen 20 ft wide or larger. Screen light was limited to approximately 12,000 lumens with the straight condenser-type system. At present the relay condenser system, with carbons operating at 225 amp, is capable of delivering as much as 35,000 lumens for straight production from one unit.

Experimentally it has been proved that increases in screen light can be effected by increases in the power of the light source and the limiting factor at present is a suitable means of cooling the aperture.