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# MORE ON FILTERS FOR LABORATORY ILLUMINATION

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The idea of using blue-UV filters on white fluorescent tubes for laboratory lighting was discussed recently by Sutton and Zimmerman (Ancient TL, No. 5, p 5, 1978). We are writing to give details of another suitable filter, which was suggested to us by J.R. Prescott after he visited Zimmerman in 1977.

A wide range of non-inflammable colour filters for theatrical lighting is manufactured by RANK STRAND ELECTRIC, P.O. BOX 70, Great West Road, BRENTFORD, MIDDLESEX TW8 9HR, U.K. and distributed worldwide. Many filters transmit all colours with a slight or modest spectral bias; they are obviously unsuitable for a TL laboratory. However, two of the "Cinemoid" filters do have very suitable spectral characteristics with sharp cut-off values (Fig 1). We use "Cinemoid" No. 1 (yellow) with a minimum of two thicknesses wrapped around each fluorescent tube, the ends of which we seal with black plastic sheet and adhesive tape. The cost of materials (through local agents) is about \$4. for a 1.2m long tube.

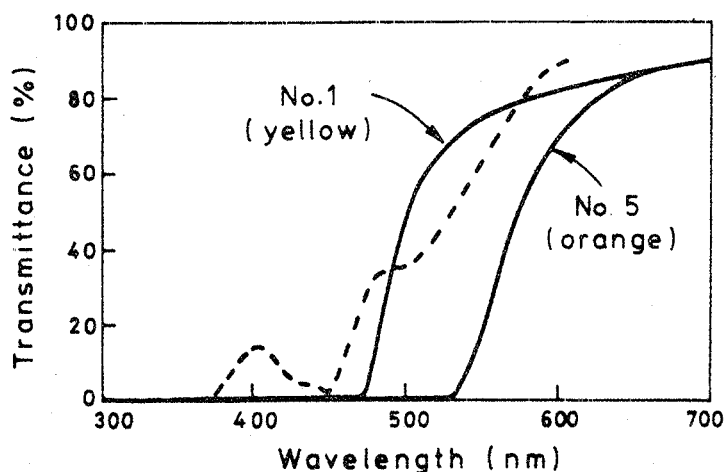


Fig 1. Light transmission through single thicknesses of "Cinemoid" No. 1 and No. 5 colour filters (measured on Perkin Elmer and Pye Unicam spectrophotometers, Dept. of Physical and Inorganic Chemistry Adelaide University). Transmittance between 300 nm and the cut-off value (475 nm for No. 1, 530 nm for No. 5) is less than 0.5%. The dashed-line is the amber filter described by Sutton and Zimmerman (*op.cit*). Photons with wavelengths shorter than ~ 300 nm are not transmitted through the glass in fluorescent tubes.