

therefore, adversely affect the recording. Because of this suppression of the self-luminosity of the event, the photographs obtained have a certain likeness to x-ray photographs. This novel technique achieved the result desired. That is, it enabled us to observe the mechanism of operation of the fuses and any irregularities occurring without trouble from the high luminosity associated with the melting of the wire.

The equipment with which to duplicate this method is already commercially available. The combination is known as the "Strobokin-Strobodrum-Strobokerr." Because this system can be assembled from complete units, it can be used in many ways in a laboratory for the photography of self-luminous or non-self-luminous rapid events, or even of events that proceed from a dark phase to one of brilliant luminosity.

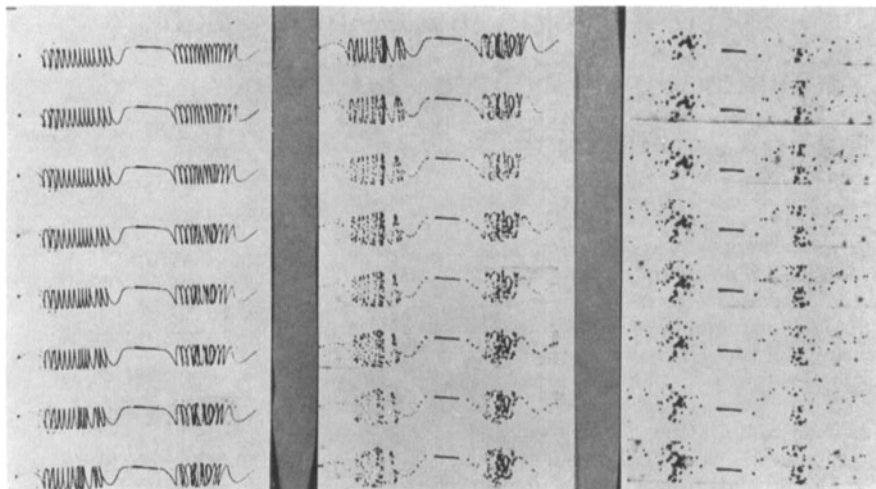


Fig. 3. Explosive-like melting of a fuse wire taken with a Strobodrum camera and Strobokerr arrangement at 20,000 frames/sec.

Letter to the Editor:

Nomenclature for Fourier Transforms of Spread Function

From the I.C.O. Subcommittee for Image Assessment Problems

The International Commission for Optics (I.C.O.) has formed a Subcommittee for Image Assessment Problems. It consists of Prof. A. Arnulf, Paris; Dr. H. H. Hopkins, London; Prof. H. Kubota, Tokyo; Dr. K. Rosenhauer, Braunschweig; and Dr. R. Scott, Norwalk, Conn., U.S.A., with the writer as Chairman.

Following a proposal of Dr. G. C. Higgins, Rochester, N. Y., U.S.A.; this Subcommittee has made recommendations on nomenclature for what is at present known under a variety of names, e.g. sine-wave response, frequency response, contrast transfer, etc. After extensive correspondence and examination of the matter, the Committee has, at sessions in Paris and London in July 1961, unanimously arrived at the recommendations below. Dr. Kubota could not be present and was represented by Drs. K. Kinoshita, K. Murata and K. Sayanagi; Dr. D. L. MacAdam, Rochester, N. Y., U.S.A., also took part in the discussions and decisions.

In making recommendation No. 1, the Committee had in mind first that response ordinarily means that the output is of a different nature from the input, and should on this account be avoided, and secondly that the word contrast is not uniquely defined and is moreover a concept much used in photography in another sense. The recommendations are given here in English, together with the proposed equivalent terms in French and German.

Recommendations

(1) The functions indicated in the heading, the curve representing it and its value for a given spatial frequency shall be called the:

Optical transfer function/curve/factor;
Fonction/courbe/facteur de transfert optique;
Optische(r) Übertragungsfunktion/kurve/faktor.

The function as denoted is the complex function. When the modulus is referred to, it shall be denoted by the terms:

Modulation transfer function/curve/factor;
Fonction/courbe/facteur de transfert de modulation;
Modulationsübertragungsfunktion/kurve/faktor.

The argument of this shall be referred to by the terms:

Phase transfer function/curve/value;
Fonction/courbe/valeur de transfert de phase;
Phasenübertragungsfunktion/kurve/wert.

It is to be understood that the prefix of transfer may be omitted when confusion cannot arise.

(2) The variables of these functions shall be termed:

Spatial frequency;
Fréquence spatiale;
Ortsfrequenz.

(3) The unit of spatial frequency shall be described by either:
Cycles per mm or lines per mm.

(The latter when no confusion can occur with television lines, since 2 TV lines = 1 cycle). The corresponding terms are:

Cycles par mm	Lignes par mm;
Perioden pro mm	Linien pro mm.

Comments on the above recommendations are invited. They should be addressed to the Subcommittee Chairman (address below) and should be received well before August 1962 when the recommendations are to be presented to the full Commission.

September 6, 1961

ERIK INGELSTAM, *Chairman*,
Subcommittee for Image Assessment Problems, I.C.O.
c/o Institute of Optical Research
Stockholm 70, Sweden