

TABLE OF CONTENTS

COMM. No.	TITLE	AUTHOR	PAGE
663	Optical Sensitizing of the Silver Halides	<i>S. E. Sheppard</i>	7
683	The Evaluation of Negative Film Speeds in Terms of Print Quality	<i>L. A. Jones</i>	27
688H	The Effect of Adaptation and Contrast on Apparent Brightness	<i>F. H. G. Pitt</i>	64
690	The Viscosity of Dilute Solutions of Long-Chain Molecules. II	<i>M. L. Huggins</i>	72
691	The Effect of Gradual Light Absorption in Photographic Exposure	<i>L. Silberstein</i>	78
695	An Improved Fine-Grain Developer Formula	{ <i>J. I. Crabtree</i> <i>R. W. Henn</i>	90
696	Chemical Analysis of an M.-Q. Developer	{ <i>R. M. Evans</i> <i>W. T. Hanson Jr.</i>	96
697	An Opacimeter Used in Chemical Analysis	{ <i>R. M. Evans</i> <i>G. P. Silberstein</i>	101
698	A Color-Temperature Meter	{ <i>E. M. Lowry</i> <i>K. S. Weaver</i>	104
699	Empirical Relations between Sensitometric and Size-Frequency Characteristics in Photographic Emulsion Series	{ <i>A. P. H. Trivelli</i> <i>W. F. Smith</i>	110
700	Optical Anisotropy and the Structure of Cellulosic Sheet Materials	<i>J. Spence</i>	122
701	A Note on the Color Temperature-Candle Power Characteristic of Tungsten Lamps	{ <i>K. S. Weaver</i> <i>H. E. Hussong</i>	133
702	The Mechanism of the Autoxidation of ψ -Cumohydroquinone	{ <i>G. Kornfeld</i> <i>A. Weissberger</i>	138
703	Optical Sensitizing of Silver Halides by Dyes. I. Adsorption of Sensitizing Dyes	{ <i>S. E. Sheppard</i> <i>R. H. Lambert</i> <i>R. D. Walker</i>	144
704	The Effect of Grain Size on Finishing of Photographic Emulsions	{ <i>A. P. H. Trivelli</i> <i>W. F. Smith</i>	156
705	2,3-Diphenylbutadiene-1,3	{ <i>C. F. H. Allen</i> <i>C. G. Eliot</i> <i>A. Bell</i>	162
706	A Method of Dimensional Gauging with Photoelectric Cells	{ <i>C. Tuttle</i> <i>W. Bornemann</i>	168
707	Mechanism of Development. I. The General Effect of Oxidation Products on the Development Process and the Nature of the Induction Period	<i>T. H. James</i>	174
708	Empirical Relations between Hurter and Driffield Speed and Average Grain Size of Photographic Emulsions	{ <i>A. P. H. Trivelli</i> <i>W. F. Smith</i>	186
709	Oxidation Processes. XIII. The Inhibitory Action of Sulfite and Other Compounds in the Autoxidation of Hydroquinone and Its Homologues	{ <i>T. H. James</i> <i>A. Weissberger</i>	193
710	The Reaction of Thiol Compounds with Quinones	{ <i>J. M. Snell</i> <i>A. Weissberger</i>	204

TABLE OF CONTENTS

COMM. No.	TITLE	AUTHOR	PAGE
711	Resolving Power and Structure in Photographic Emulsion Series	{ <i>A. P. H. Trivelli</i> <i>W. F. Smith</i>	207
712	The Reduction of Silver Ions by Hydroquinone	<i>T. H. James</i>	216
713	The Viscosity of Dilute Solutions of Long-Chain Molecules. III. The Staudinger Viscosity Law	<i>M. L. Huggins</i>	222
714H	Latent-Image Formation at Low Temperatures	<i>W. F. Berg</i>	229
715	Representation of Color Tolerance on the Chromaticity Diagram	<i>D. L. MacAdam</i>	238
716	The Photographic Reciprocity Law at Low Temperature	{ <i>C. H. Evans</i> <i>F. Hirschlaff</i>	241
717H	Experiments on the Nature of Graininess	<i>E. W. H. Selwyn</i>	245
718	Absolute Values of the Velocity Constants in the Formation of Semiquinone	<i>G. Kornfeld</i>	257
719	Optical Sensitizing of Silver Halides by Dyes. II. The Mechanism of Optical Sensitizing and the Quantum Equivalent	{ <i>S. E. Sheppard</i> <i>R. H. Lambert</i> <i>R. D. Walker</i>	261
720	The Isolation of Desired Qualities of Radiant Energy for Biological Experimentation	{ <i>L. A. Jones</i> <i>C. Tuttle</i>	278
721H	Preparation of 4'-Cyanines	<i>F. M. Hamer</i>	283
723	Note on Spark Recording of Data	<i>C. Tuttle</i>	286
725	Constructing Apparatus for Electrodialysis	{ <i>J. Russell</i> <i>R. E. Stauffer</i>	288
726	Methods and Instruments for the Determination of Photographic Speeds by Measurement of Relative Characteristic Gradients	<i>C. Tuttle</i>	290
729	Electrolytic Development of the Latent Image	<i>R. S. Morse</i>	302
731	Illuminating Cut-Sheet Kodachrome on the Process Camera	{ <i>C. O. Glassey</i> <i>A. Murray</i>	307
733	Certain Properties of Long-Chain Compounds as Functions of Chain Length	<i>M. L. Huggins</i>	312
734	Normal Systems with Two Caustic Lines	<i>M. Herzberger</i>	325
735	Theory of Image Errors of the Fifth Order in Rotationally Symmetrical Systems. I	<i>M. Herzberger</i>	326
736	The Reduction of Silver Ions by Hydroxylamine	<i>T. H. James</i>	327
737	Sensitometry of Photographic Papers	{ <i>L. A. Jones</i> <i>C. A. Morrison</i>	333
738	Number of Quanta Required to Form the Photographic Latent Image as Determined from Mathematical Analysis of the H. and D. Curve	<i>J. H. Webb</i>	358
739	Graphical Analysis of Photographic Exposure and a New Theoretical Formulation of the H. and D. Curve	<i>J. H. Webb</i>	365
744	A Theoretical Treatment of the Two-Quanta Hypothesis as Applied to the Photographic Reciprocity-Law Failure	<i>I. Silberstein</i>	380
	AUTHOR INDEX		I
	SUBJECT INDEX		V