

February 4, 1932.

PUBLICATIONS RELATING TO PHOTODUPLICATION

CONTENTS

	Page
Classification of Bureau of Standards publications	1
To obtain Government publications	2
Publications out of print	2
To obtain articles appearing in outside publications	3
List of Federal Specifications for photographic materials	3
Chronological list of references	4
1. Bureau of Standards publications	4
2. Articles appearing in outside publications	9
Subject index	17
Author index	18

CLASSIFICATION OF BUREAU OF STANDARDS PUBLICATIONS

A detailed discussion of the classes of publications of the Bureau of Standards together with a cross indexed list of all publications is given in Circular of the Bureau of Standards No. 24 with supplements. The letter or letters preceding the number of the paper indicate the class to which it belongs. The significance of letters appearing in the list is as follows:

- C = Circulars of the Bureau of Standards
- LC = Letter Circulars of the Bureau of Standards
- M = Miscellaneous Publications of the Bureau of Standards
- R = Simplified Practice Recommendations of the Bureau of
Standards
- S = Scientific Papers of the Bureau of Standards
- T = Technologic Papers of the Bureau of Standards
- RP = Research Papers of the Bureau of Standards (Super-
seding classes S and T, starting in July 1928 and
being papers originally published in the Bureau of
Standards Journal of Research and available in the
form of reprints.)

TO OBTAIN GOVERNMENT PUBLICATIONS

The Bureau of Standards publications, if not out of print and excepting Letter Circulars, may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C., at the prices stated (stamps are not accepted). Letter Circulars may be obtained free of charge from the Bureau of Standards, Washington, D.C., as long as available.

PUBLICATIONS OUT OF PRINT

Publications marked with an asterisk (*) are out of print but may be consulted at the leading libraries. A list of Government depository reference libraries is given in the Supplement to C 24, Nov., 1930, pp. 14-21.

TO OBTAIN ARTICLES APPEARING IN OUTSIDE PUBLICATIONS

Articles by members of the Staff of the Bureau of Standards appearing in other than Government publications are listed separately. These publications may usually be found in the larger libraries or in some cases, obtained from the publishers. Reprints may, in a few cases, be obtained by applying directly to the authors.

LIST OF FEDERAL SPECIFICATIONS FOR PHOTOGRAPHIC MATERIALS

The following list is taken from the complete list of all Federal Specifications given in the Federal Standard Stock Catalogue, Section IV, revised to July 1, 1931. Copies of Federal Specifications may be purchased from the Superintendent of Documents, Washington, D.C.

Specification Symbol	Title of Specification	Original F.S.B.No.
G-M-111	Lantern slide mats	-
G-P-641	Paper negative preservers	-
O-M-571	Mono-Methyl-Paraminophenol Sulphate (supersedes U-M-191)	421
O-S-581	Sodium-Carbonate; granular (monohydrate crystals)	432
O-S-606	Sodium Sulphite; anhydrous (for photography)	586
UU-P-81	Blueprint paper, permanent-record (sensitized and unsensitized). (Supersedes UU-P-83)	179
UU-P-86	Blueprint paper, semi-permanent-record (sensitized and unsensitized) (supersedes UU-P-83)	180

Specification Symbol	Title of Specification	Original F.S.B.No.
UU-P-91	Blueprint paper, temporary-record (sensitized and un-sensitized (supersedes UU-P-93)	181
UU-P-141	Brownprint paper, permanent-record (sensitized and un-sensitized (supersedes UU-P-143)	182
UU-P-416	Photographic black-line paper	-
UU-P-418	Photographic negative paper	-

CHRONOLOGICAL LIST OF REFERENCES

Consecutive reference numbers have been assigned to the references in the list of outside publications in order to facilitate the use of the author and subject indices given at the end of this list.

1. BUREAU OF STANDARDS PUBLICATIONS

B. of S. No.	Title of Paper	Authors	Date	Price
S132	Luminous Efficiency of the Firefly	Herbert E. Ives and W.W. Coblentz	8-09	5¢
S312	Wavelength Measurements in Spectra from 5600A to 9600A	W.F. Meggers	1-16-18	10¢
S318	The Application of Dicyanin to the Photography of Stellar Spectra	Paul W. Merrill	4-13-18	10¢
S385	A New Microphotometer for Photographic Densities	W.F. Meggers and Paul D. Foote	6-30-20	5¢

P. of S. No.	Title of Paper	Authors	Date	Price
S392	A Photographic Method of Detecting Changes in a Complicated Group of Objects	M.H. Stillman	7-31-20	5¢
S409	A New Method for the Measurement of Photographic Filter Factors	Raymond Davis	2-5-21	5¢
S422*	Studies in Color Sensitive Photographic Plates and Methods of Sensitizing by Bathing	F.M. Walters, Jr. and Raymond Davis	11-15-21	15¢

Much of the material in S422 was first published in the following Circular of the Bureau of Standards which is no longer available:

-	Color Sensitive Photographic Plates	(unsigned)	11-6-19
---	-------------------------------------	------------	---------

S439*	Sensitometry of Photographic Emulsions and a Survey of the Characteristics of Plates and Films of American Manufacture	Raymond Davis and F.M. Walters, Jr.	5-5-22	35¢
-------	--	---	--------	-----

Much of the material in S439 is a combination of data first published in the following Photographic Circulars of the Bureau of Standards which are no longer available:

1	Testing of Photographic Emulsions and a Description of the Apparatus used in Photographic Sensitometry	Raymond Davis	1918	
2	In Atlas of Photographic Emulsions	Raymond Davis and F.M. Walters, Jr.	9-3-20	(Confidential)

T217	Photomicrography of Paper Fibres	R.E. Lofton	8-2-22	5¢
------	----------------------------------	-------------	--------	----

B. of S. No.	Title of Paper	Authors	Date	Price
S454	Action of Charred Paper on the Photographic Plate and a Method of Deciphering Charred Records	Raymond Davis	10-18-22	5¢
T255	A Camera for Studying Projectiles in Flight	H.L. Curtis, W.H. Wadleigh and A.H. Sellman	3-19-24	10¢
S494	Aberrations of Long Focus Anastigmatic Photographic Objectives	A.H. Bennett	10-16-24	20¢
S508	Spark Photography and Its Application to Some Problems of Ballistics	Phillip P. Quayle	6-15-25	20¢
S511	A Nonintermittent Sensitometer (Time-Scale Exposure Machine) with Clock-Controlled Motor Drive	Raymond Davis	8-20-25	15¢
S517	A Special Camera for Photographing Cylindrical Surfaces	Raymond Davis	12-5-25	10¢
S528	Experimental Study of the Relation between Intermittent and Nonintermittent Sector-Wheel Photographic Exposures	Raymond Davis	5-18-26	20¢
RP20	Sensitization of Photographic Emulsions by Colloidal Materials	Burt H. Carroll and Donald Hubbard	10-28	10¢
R98	Photographic Paper		1929	10¢
RP134	The Effect of Light on Silver Chloride in Chemical Analyses	G.E.F. Lundell and J.I. Hoffman	1-30	5¢

B. of S. No.	Title of Paper	Authors	Date	Price
RP173	Spectral Sensitization of Photographic Emulsions (Notes on Bathing with Pinacyanol-Pinacyanol Mixtures)	Burt H. Carroll and Donald Hubbard	5-30	5¢
RP183	A Comparison of Resolving Power and Sensitivity of Photographic Plates with Varying Development	Burt H. Carroll and Donald Hubbard	7-30	5¢
M114	Filters for the Reproduction of Sunlight and Daylight and the Determination of Color Temperature	Raymond Davis and K.S. Gibson	1-31	45¢
RP340	The Photographic Emulsion- After Ripening	Burt H. Carroll and Donald Hubbard	8-31	10¢
RP355	An Experimental Study of Several Methods of Representing Photographic Sensitivity	Raymond Davis and G.K. Neeland	9-31	10¢
RP365	A Correlated Color Temperature for Illuminants	Raymond Davis	10-31	10¢
RP374	The Relative Spectral Energy Distribution and Correlated Color Temperature of the N.P.L. White-Light Standard	Raymond Davis and K.S. Gibson	11-31	5¢
RP376	The Photographic Emulsion: The Silver Non-Gelatin Equilibrium	Burt H. Carroll and Donald Hubbard	11-31	5¢
RP378	Variation of Photographic Sensitivity with Different Light Sources	Raymond Davis and G.K. Neeland	11-31	5¢

B. of S. No.	Title of Paper	Authors	Date	Price
RP427	The Optical Require- ments of Airplane Mapping.	I.C. Gardner	4-32	

2. OUTSIDE PUBLICATIONS.

Ref. No.	Name of Publication	Title of Paper	Authors	Date	Vol.
1	Physical Review (abstract of lecture)	Optical and Photographic Methods for the Detection of Invisible Writing	I.G. Priest and E.P. Tyndall	8-19	<u>14</u> p.188
2	Journal of the Franklin Institute	Hypersensitizing Commercial Panchromatic Plates	S.M. Burka	1-20	<u>189</u> p.25
3	Journal of the Optical Society of America and Review of Scientific Instruments (reprint of S385)	A New Microphotometer for Photographic Densities	W.F. Meggers and P.D. Foote	1-20	<u>4,1</u> p.24
4	Journal of the Optical Society of America and Review of Scientific Instruments	Dyes for Photographic Sensitizing	W.F. Meggers and E.J. Stimson	5-20	<u>4,3</u> p.91
5	Journal of the Optical Society of America and Review of Scientific Instruments (reprinted as S409)	A New Method for Measurement of Photographic Filter Factors	Raymond Davis	9-20	<u>4,5</u> p.300
6	The Photographic Journal (reprint of S409)	A New Method for Measurement of Photographic Filter Factors	Raymond Davis	4-21	<u>61</u> p.168
7	Lefax Handbock (abstract of S422)	Color Sensitive Photographic Plates and Methods of Sensitizing by Bathing	F.M. Walters, Jr. and Raymond Davis	9-21	Dewey 722 Lefax 00
8	The British Journal of Photography (reprint of S422)	Studies in Color Sensitizing by Bathing	F.M. Walters, Jr. and Raymond Davis	7-14-22	<u>69</u> p.416

Ref. No.	Name of Publication	Title of Paper	Authors	Date	Vol.
9	Journal of the Optical Society of America and Review of Scientific Instruments	Note on the Shrinkage of Photographic Films	H.L. Curtis	3-23	<u>7,3</u> p.275
10	The British Journal of Photography (reprint of S439)	Sensitometry of Photographic Emulsions and a Survey of the Characteristics of Plates and Films of American Manufacture	Raymond Davis and F.M. Walters, Jr.	8-17-23 8-24-23 8-31-23 9-7-23 4-6-23	<u>70</u> p.509 p.525 p.539 p.554 p.205
11	The British Journal of Photography (reprint of S454)	Action of Charred Paper on the Photographic Plate and a Method of Deciphering Charred Records	Raymond Davis	4-6-23	<u>70</u> p.205
12	Journal of Physical Chemistry	Solarization and Photographic Reversal by Desensitizers	B.H. Carroll	6-25	<u>29</u> p.693
13	Science et Industries Photographiques (abstract of 12)	Solarization and Photographic Reversal by Desensitizers	B.H. Carroll	8-25	<u>5,8</u> p.139
14	The Chemical News and Journal of Industrial Science (abstract of S511)	A Nonintermittent Sensitometer	Raymond Davis	12-4-25	<u>131</u> p.554
15	Journal of Physical Chemistry	The Photochemical Oxidation of Leuco Bases	B.H. Carroll	1-26	<u>30</u> p.130

Ref. No.	Name of Publication	Title of Paper	Authors	Date	Vol.
16	Science et Industries Photographiques (translation of S511)	Sensitometer Non-Intermittent a Moteur Controle par Pendule	Raymond Davis	2-26	<u>6,2</u> p.24
17	Journal of the Optical Society of America and Review of Scientific Instruments	A Camera for Photographing the Interior of a Rifle Barrel	I.C. Gardner and F.A. Case	2-26	<u>12,2</u> p.159
18	Journal of the Optical Society of America and Review of Scientific Instruments	The Unit of Photographic Intensity (Report of O.S.A. Committee)	L.A. Jones, Chairman	6-26	<u>12,6</u> p.567
19	Science et Industries Photographiques (translation of S517)	Appareil pour la Photographie des Surfaces Cylindriques	Raymond Davis	6-26	<u>6,6</u> p.115
20	Journal of the Optical Society of America and Review of Scientific Instruments	Sensitization for The Entire Visible Spectrum	B.H. Carroll	7-26	<u>13,1</u> p.35
21	Technische Rundschau (Translation of S517)	Eine Spezialkamera Zum Photographieren von Zylinderflachen	Raymond Davis Trans. by Dr. Alfred Gradonwitz	8-18-26	<u>33,32</u> p.297
22	Science et Industries Photographiques (translation of S528)	Influence des Poses Intermitentes sur l'action Photographiques	Raymond Davis	10-25	<u>6,10</u> p.179

Ref. No.	Name of Publication	Title of Paper	Authors	Date	Vol.
23	Science et Industries Photographiques (abstract of 20)	Sensitization for the Entire Visible Spectrum	B.H. Carroll	10-26	$\frac{6,10}{p.137}$
24	Journal of the Optical Society of America and Review of Scientific Instruments (abstract of lecture)	Reproducible Liquid Filters for the Production of "White Light"	Raymond Davis and K.S. Gibson	2-27	$\frac{14,2}{p.135}$
25	Journal of the Optical Society of America and Review of Scientific Instruments	The Distortion of Some Typical Photographic Objectives	A.H. Bennett	3-27	$\frac{14,3}{p.235}$
26	Journal of the Optical Society of America and Review of Scientific Instruments	The Compensation of Distortion in Objectives for Airplane Photography	I.C. Gardner and A.H. Bennett	3-27	$\frac{14,3}{p.245}$
27	Science et Industries Photographiques (abstract of 24)	Filtres Colorés pour "Lumière Blanche"	Raymond Davis and K.S. Gibson	5-27	$\frac{7,5}{p.91}$
28	Physical Review (abstract of lecture)	Reproducible Liquid Filters for the Determination of the Color Temperature of Incandescent Lamps	Raymond Davis and K.S. Gibson	6-27	$\frac{29,2}{p.916}$

Ref. No.	Name of Publication	Title of Paper	Authors	Date	Vol.
29	Journal of Physical Chemistry	The Photographic Emulsion I. The Comparison of Emulsions Made with Different Bromides	B.H. Carroll and Donald Hubbard	6-27	<u>31</u> p.906
30	Science et Industries Photographiques (abstract of 29)	The Photographic Emulsion I. The Comparison of Emulsions Made With Different Bromides	B.H. Carroll and Donald Hubbard	8-27	<u>7</u> p.146
31	Journal of the Optical Society of America and Review of Scientific Instruments (abstract of lecture)	Filters for the Reproduction of Sunlight and the Determination of Color Temperature.	Raymond Davis and K.S. Gibson	5-28	<u>16,5</u> p.33'
32	Proc. 7th Int. Cong., Phot., London	The Unit of Photographic Intensity- Report of the C.S. A. Committee on the Unit of Photographic Intensity	L.A. Jones, Chairman	7-28	p.152
33	Proc. 7th Int. Cong. Phot., London	Artificial Sunlight for Photographic Sensitometry	Raymond Davis and K.S. Gibson	7-28	p.161
34	Science et Industries Photographiques (translation of 33)	Lumiere Solaire Artificielle pour Sensitometric	Raymond Davis and K.S. Gibson	9-28	<u>8,9</u> p.158
35	British Journal of Photography (reprint of RP20)	Sensitization of Emulsions by Colloid Materials.	B.H. Carroll and Donald Hubbard	11-23-28 11-30-28 12-7-28	p.71 p.72 p.72'

Ref. No.	Name of Publication	Title of Paper	Authors	Date	Vol.
36	Transactions of the Society of Motion Picture Engineers	Artificial Sunlight for Photographic Sensitometry	Raymond Davis and K.S. Gibson	1928	<u>12,33</u> p.225
37	Journal of the Optical Society of America and Review of Scientific Instruments	Resolutions Dealing with the Photographic Unit of Intensity, Presented at the International Congress of Photography- Report of the O.S.A. Committee on Standards of Photographic Intensity	L.A. Jones, Chairman	3-29	<u>18,3</u> p.162
38	Journal of the Optical Society of America and Review of Scientific Instruments (abstract of lecture)	Methods for Determining the Color of Sunlight and Daylight	K.S. Gibson and Raymond Davis	6-29	<u>18,6</u> p.442
39	Photographische Industrie (translation of RP20)	Sensitization of Emulsions by Colloid Materials	B.H. Carroll and Donald Hubbard	1929	<u>27</u> p.321
40	Journal of the Radiological Society of North America (Radiology)	Safeguarding the Storage of Photographic, Motion Picture, and X-ray Films	C.R. Brown	5-30	<u>14</u> p.454
41	British Journal of Photography	Sensitizing with Finacyanol-Finacflavol Mixtures	B.H. Carroll and Donald Hubbard	7-18-30	<u>77</u> p.429
42	Science et Industries Photographiques (abstract of RP183)	A Comparison of Resolving Power and Sensitivity of Photographic Plates with varying Development	B.H. Carroll and Donald Hubbard	11-30 (2)	<u>1,11</u> p.412

Ref. No.	Name of Publication	Title of Paper	Authors	Date	Vol.
43	Science et Industries Photographiques (abstract of M114)	Filteres pour la Reproduction de la Lumiere Sol- aire (ctalon Sensitometrique)	Raymond Davis and K.S. Gibson	5-31 (2)	<u>2,5</u> p.167
44	Journal of the Optical Society of America	A Note on the "Speed" of Photo- graphic Emulsions	Raymond Davis and G.K. Neeland	7-31	<u>21,7</u> p.410
45	Science et Industries Photographiques (translation of 44)	Expression de la Sensibilite des Emulsions Photo- graphiques	Raymond Davis and G.K. Neeland	9-31 (2)	<u>2,9</u> p.354
46	Journal of the Optical Society of America	The Photographic Unit of Intensity (Report of C.S.... Committee)	H.S. Gibson, Chairman	10-31	<u>21,10</u> p.654
47	Science et Industries Photographiques (abstract of RP340)	The Photographic Emulsion- After Ripening	B.H. Carroll and Donald Hubbard	12-31 (2)	<u>2</u> p.444
48	Journal of Chemical Education	The Preparation of Photographic Emulsions	B.H. Carroll	12-31	<u>8,12</u> p.234
49	Chemical Week- blad (abstract of M114)	Filters for the Reproduction of Sunlight and Day- light and the De- termination of Color Temperature	Raymond Davis and K.S. Gibson	1-9-32	
50	Science et Industries Photographiques (translation of RP355)	Etude experim- entale de quelques Methodes d'ex- pression de la sensibilite	Raymond Davis and G.K. Neeland	1-32 (2)	<u>3,1</u>

Ref. No.	Name of Publication	Title of Paper	Authors
51	Kongressband, 8 Internationaler Photographischer Kongress (translation of RP355)	Experimentelle Untersuchung Verschiedener Methoden, die Photographische Empfindlichkeit Darzustellen	Raymond Davis and G.K. Neeland
52	Journal of the Society of Motion Picture Engineers	The Mechanism of Hypersensitization	B.H. Carroll and Donald Hubbard
53	Journal of the Society of Motion Picture Engineers (rewrite of RP355)	Variation of Photographic Sensitivity with Development Time	Raymond Davis and G.K. Neeland
54	Journal of the Society of Motion Picture Engineers (reprint of RP378)	Variation of Photographic Sensitivity with Different Light Sources	Raymond Davis and G.K. Neeland

17

SUBJECT INDEX

In the following index the Bureau of Standards Publications are indicated by their official numbers. Papers appearing in other than Government publications are designated by the reference numbers given in the preceding list of Outside Publications. These numbers are inclosed in parenthesis to distinguish them from Government publications.

GENERAL PHOTOGRAPHY

Apparatus:

Abberations of long focus lenses S494
Camera for photographing bullets in flight T255
Camera for photographing the interior of rifle barrels (17)
Camera for photographing cylindrical surfaces S517, (19), (21)
Distortion of photographic objectives (25)
Compensation for distortion in airplane objectives (26)
Optical requirements for airplane mapping RP427

Applications:

Photographic method of spectral energy measurement S132
Photographic method for detection of invisible writing (1)
Photographic method of detecting changes in a complicated object S392
Infra-red spectroscopy S312, S318

Photomicrography:

Of paper fibres T217

Simplified Practice Recommendations:

Photographic Paper Sizes R98

Technology:

Action of charred paper on photographic plates S454, (11)
Spark photography S508
Developers for fine grain images RF183, (42)
Note on the shrinkage of films (9)
Methods for the storage of films (40)

PHOTOGRAPHIC EMULSIONS

Technology:

Comparison of, with different bromides (29), (30)
Sensitization with colloidal materials RP20, (35), (39)
After-ripening RF340, (47)
Gelatin-silver ion equilibrium of RP376
Preparation of (48)
Hypersensitization, mechanism of (52)

SENSITOMETRY

Apparatus:

Densitometer S385, (3)
 For measurement of filter factors S409, (5), (6)
 Sensitometer S511, (14), (16)

Light Filters:

For reproduction of sunlight and daylight M114, (33), (34), (36), (43), (44)
 Miscellaneous RP365, RP374, (24), (27), (28), (31), (38)

Measurements:

Intermittency effect S528, (22)
 Sensitivity;
 Methods of measurement of RP355, (50), (51), (53)
 Tests of S439, (10)
 Change in, with different light sources RP378, (54)
 Spectral sensitization S422, RP173, (2), (4), (7), (8), (15), (20), (23), (41)
 Miscellaneous;
 Effect of light on silver chloride in analysis RP134
 Reversal by desensitizing dyes (12), (13)

Standardization: (see also under Light Filters)

Unit of photographic intensity, report of committee on (12), (32), (37), (46)
 Nomenclature, note on need for definite (44), (45)

AUTHOR INDEX

In this index, Bureau of Standards publications are listed by their official number in the column headed B. of S. Numbers. Other papers included in the list of Outside Publications are given in the column headed Reference Numbers.

Name of Author	B. of S. Numbers	Reference Numbers
A.H. Bennett	S494	25, 26
C.R. Brown		40
S.M. Burka		2
B.H. Carroll	RP20, RP173, RP183 RP340, RP376	12, 13, 15, 20, 23, 29 30, 35, 39, 41, 42, 47, 48
F.A. Case		17 (52)
T.W. Coblenz	S132	

Name of Author	B. of S. Numbers	Reference Numbers
H.L. Curtis	T255	9
R. Davis	S409, S422, S439 S454, S511, S517 S528, M114, RP355 RP365, RP374, RP378	5, 6, 7, 8, 10, 11, 14, 16, 19, 21, 22, 24, 27, 28, 31, 33, 34, 36, 38, 43, 44, 45, 49, 50, 51, 53, 54
P.D. Foote	S385	3
W.S. Gibson	M114, RP374	24, 27, 28, 31, 33, 34, 36, 38, 43, 46, 49
I.C. Gardner	RP227	17, 26
J.I. Hoffman	RP134	
D. Hubbard	RP20, RP173, RP183, RP340, RP376	29, 30, 35, 39, 41, 42, 47, 52
H.E. Ives	S132	
L.A. Jones		18, 32, 37
R.E. Lofton	T217	
G.E.F. Lundell	RP134	
F.W. Merrill	S318	
W.F. Meggers	S312, S385	3, 4
G.K. Neeland	RP355, RP378	44, 45, 50, 51, 53, 54
I.G. Priest		1
P.P. Quayle	S508	
A.H. Scellman	T255	
M.H. Stillman	S392	
F.J. Stimson		4
E.P.T. Tyndall		1
W.H. Wadleigh	T255	
F.M. Walters, Jr.	S422, S439	7, 10



