U. S. DEPARTMENT OF COMMERCE  
NATIONAL BUREAU OF STANDARDS  
WASHINGTON

(Revised to September 24, 1946)

LIME: TECHNICAL PUBLICATIONS BY MEMBERS OF THE STAFF OF THE NATIONAL BUREAU OF STANDARDS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I - Scientific Papers (S)</td>
<td>2</td>
</tr>
<tr>
<td>Part II - Technologic Papers (T)</td>
<td>3</td>
</tr>
<tr>
<td>Part III - Research Papers (RP)</td>
<td>3</td>
</tr>
<tr>
<td>Part IV - Circulars (C)</td>
<td>6</td>
</tr>
<tr>
<td>Part V - Letter Circulars (LC)</td>
<td>3</td>
</tr>
<tr>
<td>Part VI - Building and Housing Publications (BH)</td>
<td>8</td>
</tr>
<tr>
<td>Part VII - Building Materials and Structures (BMS)</td>
<td>8</td>
</tr>
<tr>
<td>Part VIII - Miscellaneous Publications (M)</td>
<td>9</td>
</tr>
<tr>
<td>Part IX - Simplified Practice Recommendations (R)</td>
<td>9</td>
</tr>
<tr>
<td>Part X - Federal Specifications (FS)</td>
<td>9</td>
</tr>
<tr>
<td>Part XI - Outside Publications</td>
<td>10</td>
</tr>
</tbody>
</table>

GENERAL INFORMATION

Some of the publications in this list have appeared in the regular series of publications of the Bureau and others in various scientific and technical journals. Unless specifically stated, papers are not obtainable from the National Bureau of Standards.

Where the price is stated, the publication can be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. The prices quoted are for delivery to addresses in the United States and its territories and possessions and in certain countries which extend the franking privilege. In the case of all other countries, one-third the cost of the publication should be added to cover postage. Remittances should be made either by coupons (obtainable from the Superintendent of Documents in sets of 20 for $1.00 and good until used), or by check or money order payable to the "Superintendent of Documents, Government Printing Office" and sent to him with order. Letter Circulars are obtainable, without charge, from the Bureau. Publications marked "OP" are out of print, but, in general, may be consulted at technical libraries.
For papers in other scientific or technical journals, the name of the journal or of the organization publishing the article is given in abbreviated form with the volume number (underscored), page, and year of publication, in the order named.

Serial letters are used to designate the several series of Bureau publications:

S - "Scientific Paper." S1 to S329 are "Reprints" from the "Bulletin of the Bureau of Standards." S330 to S572 were published as "Scientific Papers of the Bureau of Standards." This series was superseded by the "Bureau of Standards Journal of Research" in 1928.

T - "Technologic Paper." T1 to T370. This series was superseded by the "Bureau of Standards Journal of Research" in 1928.

RP - "Research Paper." These are reprints of articles appearing in the "Bureau of Standards Journal of Research" and the "Journal of Research of the National Bureau of Standards," the latter being the title of this periodical since July 1934 (volume 13, number 1).

BH - "Building and Housing" publication.

BMS - "Building Materials and Structures" report.

C - "Circular."

LC - "Letter Circular."

R - "Simplified Practice Recommendation."

Circular C24 and supplements, the complete list of the Bureau's publications (1901-1944), is sold by the Superintendent of Documents for $1.30. Announcement of new publications is made each month in the Technical News Bulletin which is obtainable by subscription at 50 cents a year, 70 cents a year to foreign countries.

PART I - SCIENTIFIC PAPERS


### PART II - TECHNOLOGIC PAPERS

<table>
<thead>
<tr>
<th>Title</th>
<th>Series</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Superseded September 28, 1927 by Cir.BS, C337 under the same title)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PART III - RESEARCH PAPERS - REPRINTED FROM JOURNAL OF RESEARCH OF THE NATIONAL BUREAU OF STANDARDS

<table>
<thead>
<tr>
<th>Title</th>
<th>Series</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction of water on calcium aluminates. Lansing S. Wells. BS J. Research, 1, 951(1928). (Includes hydrogen-ion concentrations of calcium hydroxide solutions and electrometric titration of aluminum chloride with calcium hydroxide)</td>
<td>RP34</td>
<td>OP</td>
</tr>
<tr>
<td>Fire resistance of hollow load-bearing wall tile. S.H.Ingberg and H.D. Foster. BS J. Research, 2, 1(1929). (Includes fire tests on wall tile covered with lime plaster.)</td>
<td>RP37</td>
<td>75¢</td>
</tr>
<tr>
<td>Transmission of sound through wall and floor structures. V.L. Chrisler and W.F. Snyder. BS J. Research, 2, 541 (1929).</td>
<td>RP48</td>
<td>*</td>
</tr>
<tr>
<td>Durability and strength of bond between mortar and brick. L.A.Palmer and J.V.Hall, Jr. BS J. Research, 6, 473 (1931).</td>
<td>RP290</td>
<td>OP</td>
</tr>
<tr>
<td>Heat transfer through building walls. M.S.Van Dusen and J.L.Fink. BS J. Research, 6, 493 (1931).</td>
<td>RP291</td>
<td>OP</td>
</tr>
</tbody>
</table>

* A limited number are available for free distribution, upon application to the Bureau.
Factors affecting the strength of masonry hollow units. D.E. Parsons. BS J. Research, 6, 857 (1931).


The system CaO·B$_2$O$_3$. Elmer T. Carlson. BS J. Research, 9, 325 (1932).

The activity coefficients of hydroxyl ion in solutions of calcium hydroxide at 30°C. E.P. Flint and Lansing S. Wells. BS J. Research, 11, 163 (1933).

A sedimentation method for the determination of the particle size of finely divided materials (such as hydrated lime). Dana L. Bishop. BS J. Research, 12, 173 (1934).

A study of the properties of mortars and bricks and their relation to bond. L.A. Palmer and D.A. Parsons. BS J. Research, 12, 609 (1934).

Study of the system CaO-SiO$_2$-H$_2$O at 30°C and of the reaction of water on the anhydrous calcium silicates. E.P. Flint and Lansing S. Wells. BS J. Research, 12, 751 (1934).


Differences in limes as reflected in certain properties of masonry mortars. Lansing S. Wells, Dana L. Bishop, and David Watstein. J. Research NBS 17, 835 (1936).

Studies on a portion of the system CaO-Al$_2$O$_3$-Fe$_2$O$_3$. Howard F. McMurdie. J. Research NBS 18, 475 (1937).


PART III - RESEARCH PAPERS

Analog of hydrated calcium silicoaluminates and hexacalcium aluminate to hydrated calcium sulfoaluminates. E.P. Flint and Lansing S. Wells, J Res NBS 35, 471 (1944)  


PART IV - CIRCULARS

Rules and regulations for the enforcement of the lime-barrel act. Cir. BS C64(1917) - 6pp.


Manufacture of lime. Cir. BS, C337 (1927) -104 pp (Superseding Technologic Paper No. 16 under same title).

SERIES OF SPECIFICATIONS FOR LIME USED IN VARIOUS CHEMICAL PROCESSES

(These specifications, prepared under the auspices of the National Bureau of Standards, are recommended by the Inter-departmental Conference on Chemical Lime).

Recommended specifications for quicklime and hydrated lime for use in the cooking of rags for the manufacture of paper. Cir. BS, C96 (1920)-5 pp.

* A limited number are available for free distribution, upon application to the Bureau.
PART IV - CIRCULARS

<table>
<thead>
<tr>
<th>Recommended specification for limestone, quicklime, and hydrated lime for use in the manufacture of glass. Cir. BS, C118 (1921)</th>
<th>7 pp.</th>
<th>Series</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended specification for quicklime for use in causticizing. Cir. BS, C143 (1923)</td>
<td>5 pp.</td>
<td>C143</td>
<td>*</td>
</tr>
<tr>
<td>Recommended specification for limestone and quicklime for use in the manufacture of sulphite pulp. Cir. BS, C144 (1923)</td>
<td>7 pp.</td>
<td>C144</td>
<td>OP</td>
</tr>
<tr>
<td>Recommended specification for quicklime and hydrated lime for use in the manufacture of sand-lime brick. Cir. BS, C150 (1923)</td>
<td>6 pp.</td>
<td>C150</td>
<td>*</td>
</tr>
<tr>
<td>Recommended specification for ceramic whiting. Cir. BS, C152 (1923)</td>
<td>7 pp.</td>
<td>C152</td>
<td>5¢</td>
</tr>
<tr>
<td>Recommended specification for quicklime and hydrated lime for use in the manufacture of silica brick. Cir. BS, C153 (1923)</td>
<td>7 pp.</td>
<td>C153</td>
<td>*</td>
</tr>
<tr>
<td>Recommended specification for quicklime and hydrated lime for use in the absorption of carbon dioxide. Cir. BS, C189 (1924)</td>
<td>5 pp.</td>
<td>C189</td>
<td>*</td>
</tr>
<tr>
<td>Recommended specification for quicklime and hydrated lime for use in the manufacture of calcium arsenate. Cir. BS, C203 (1925)</td>
<td>4 pp.</td>
<td>C203</td>
<td>*</td>
</tr>
<tr>
<td>Recommended specifications for limestone, quicklime, lime powder, and hydrated lime for use in the manufacture of sugar. Cir. BS, C207 (1925)</td>
<td>6 pp.</td>
<td>C207</td>
<td>*</td>
</tr>
<tr>
<td>Recommended specification for quicklime and hydrated lime for use in water purification. Cir. BS, C231 (1925)</td>
<td>4 pp.</td>
<td>C231</td>
<td>5¢</td>
</tr>
<tr>
<td>Recommended specification for quicklime and hydrated lime for use in soap making. Cir. BS, C372 (1929)</td>
<td>6 pp.</td>
<td>C372</td>
<td>*</td>
</tr>
</tbody>
</table>
**PART IV - CIRCULARS**

Recommended specifications for quicklime for use in the distillation of ammonia from ammonia liquors obtained in coke and gas manufacture. Cir. BS, C373(1928) - 4 pp. Series C373 Price *

**PART V - LETTER CIRCULARS**

Standard specifications for sieves(1940) LC584 Free on application to Bureau

Cement: Publication by members of the staff of the National Bureau of Standards, together with a list of Federal Specifications. LC641

Sound absorption coefficients of the more common materials (January 23, 1943) LC714

Dampness in masonry walls above grade (April 3, 1943) LC721

Structural clay products, stone and masonry (June 18, 1946) LC824

**PART VI - BUILDING AND HOUSING PUBLICATIONS**

Recommended minimum requirements for masonry wall construction. (Including supplement giving modification in brick masonry stresses) Bldg.&Hous. BS, BH6(1925) -57 pp. BH6 OP

Care and repair of the house, V.B. Phelan. Bldg.&Hous. BS, BH15 (1931) -121 pp. BH15 20¢

Recommended minimum requirements for small dwelling construction. Bldg.&Hous. BS, BH18 (1932) -103 pp. BH18 15¢

**PART VII - BUILDING MATERIALS AND STRUCTURES REPORTS**

Suitability of fiber insulating lath as a plaster base. Lansing S. Wells and D.C. Smith (Aug. 23, 1938) BMS3 15¢

Water permeability of masonry walls. Cyrus C. Fishburn, David Watstein, and Douglas E. Parsons (Oct. 18, 1938) BMS7 OP

Effect of heating and cooling on the permeability of masonry walls. Cyrus C. Fishburn and Perry H. Peterson (Jan. 11, 1940) BMS41 OP
### PART VII - BUILDING MATERIALS AND STRUCTURES REPORTS

<table>
<thead>
<tr>
<th>Series</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMS42</td>
<td>15¢</td>
</tr>
<tr>
<td>BMS55</td>
<td>10¢</td>
</tr>
<tr>
<td>BMS71</td>
<td>20¢</td>
</tr>
<tr>
<td>BMS76</td>
<td>15¢</td>
</tr>
<tr>
<td>BMS82</td>
<td>20¢</td>
</tr>
</tbody>
</table>

Structural properties of wood-frame wall and partition constructions with "Celotex" insulating boards. Herbert L. Whittemore and Ambrose H. Stang

Effects of wetting and drying on the permeability of masonry walls. Cyrus C. Fishburn (Sept. 18, 1940)

Fire tests of wood-and metal-framed partitions... S.H. Ingberg and Nolan D. Mitchell (May 12, 1941)


Water permeability of walls built of masonry units. Cyrus C. Fishburn. (April 15, 1942)

Note: A number of additional BMS publications relating to permeability of masonry units have been omitted from this list as they deal only incidentally with lime. They may be found listed in LC824.

### PART VIII - MISCELLANEOUS PUBLICATIONS


### PART IX - SIMPLIFIED PRACTICE RECOMMENDATIONS

Metal Lath (expanded and sheet) Simpl. Prac. BS, R3(1944) R3-44 5¢

### PART X - FEDERAL SPECIFICATIONS

Federal specification for quicklime; (for) structural purposes. August 19, 1930. SS-Q-351 5¢

Federal specification for lime; hydrated (for) structural purposes. Oct. 14, 1930 SS-L-351 5¢

Federal specification for lime, hydraulic, hydrated (Sept. 23, 1930) SS-L-361 5¢

Federal specification for bases, metal; (for) plaster and stucco construction QQ-B-101c 5¢
PART X - FEDERAL SPECIFICATIONS

Federal specification for cements, hydraulic; general specifications (Methods for sampling, inspecting and testing)  
Series: SS-C-153b  Price: 15¢

Federal specification for cement; masonry  
Series: SS-C-181b  Price: 5¢

Federal specification for paint; cement-water, powder, white and tints (for interior and exterior use)  
Series: TT-P-21  Price: 5¢

Federal specification for paint; primer-sealer, (for) plaster and wall board  
Series: TT-P-56a  Price: 5¢

Federal specification for sieves, standard, testing  
Series: RR-S-366a  Price: 5¢

PART XI - OUTSIDE PUBLICATIONS

The articles listed below are not for distribution or sale by the Government, but may be consulted at most large libraries or in some cases may be purchased directly from the publishers.


PART XI - OUTSIDE PUBLICATIONS


PART XI - OUTSIDE PUBLICATIONS


Locating the causes of rain penetration of brick walls. D.E. Parsons. Building Economy (2120 Guarantee Title Bldg., Cleveland, Ohio) 12, no. 1, 5 (July 1937).

Brick laying to avoid leaks. D.E. Parsons. Am Builder (105 West Adams St., Chicago, Ill.) 59, 76 (September 1937).


