

# U.S. Geological Survey Library Classification System

U.S. GEOLOGICAL SURVEY BULLETIN 2010



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# U.S. Geological Survey Library Classification System

By R. SCOTT SASSCER

This revised and expanded classification system is a tool  
for classifying and retrieving geoscience library materials.  
The index promotes quick access to the classification tables

U.S. DEPARTMENT OF THE INTERIOR  
MANUEL LUJAN, Jr., Secretary

U.S. GEOLOGICAL SURVEY  
Dallas L. Peck, Director



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# CONTENTS

Abstract	1
Introduction	1
Subject Classification Schedule	2
Geological Survey Schedule	4
G Schedule	4
P Schedule	5
S Schedule	5
Map and Nonmap Material Call Numbers	6
Special Formats	7
Regional Library Records	8
Library of Congress Shelf List Tables	8
United States Shelf List Table	8
Acknowledgments	8
Section 1—General Works	9
Section 2—Mineralogy and Petrology	15
Section 3—General, Structural, and Dynamic Geology	17
Section 4—Historical Geology	20
Section 5—Mineral Industries, Mineral Resources, and Economic Geology	22
Section 6—Physiography, Geomorphology, and Physical Geography	28
Section 7—Paleontology	30
Section 8—Mathematics, Astronomy, Engineering, and Surveying	33
Section 9—Physics and Chemistry	37
Section 10—Biology	40
Section 11—Geographic Numbers	42
Section 12—A. Earth Science Serials	55
Section 12—B. General Science Serials	55
Section 13—Government Documents	56
Index to Classification System	57



# U.S. Geological Survey Library Classification System

By R. Scott Sasscer

## Abstract

The U.S. Geological Survey library classification system has been designed for an earth science library. It is a tool for assigning classification numbers to earth science and allied pure science library materials in order to collect these materials into related subject groups on the library shelves and arrange them alphabetically by author and title. It can also be used as a retrieval system to access these materials through the subject and visible geographic classification numbers.

The classification scheme has been developed over the years since 1904 to meet the ever-changing needs of increased specialization and new areas of study in the earth sciences.

This system contains seven schedules:

- Subject schedule
- Geological survey schedule
- Earth science periodical schedule
- Government documents periodical schedule
- General science periodical schedule
- Earth science maps schedule
- Geographic schedule

A geographic number, from the geographic schedule, is distinguished from other numbers in the system in that it is always enclosed in parentheses; for example, (200) is the geographic number for the United States.

The geographic number is used in conjunction with the six other previously listed schedules, and it represents slightly different nuances of meanings, in respect to geographic locale, for each schedule.

When used with a subject number, the geographic number indicates the country, state, province, or region in which the research was made. The subject number, 203, geology, when combined with the geographic number, (200), for example 203(200), is the classification number for library materials on the geology of the United States.

The geographic number, combined with the capital letter G, for example, G(211), is the classification number for an earth science periodical issued by a geological association or university geology department in the State of Maine.

When the letter S is combined with a geographic number, for example, S(276), it represents a general science periodical for a university or association in California.

When the letter P is combined with a geographic number, for example, P(200), it represents a governmental periodical issued by the United States Federal Government.

Geographic numbers standing alone represent classification numbers for the publications of geological surveys; for example, (200) represents publications of the U.S. Geological Survey.

Map call numbers have a geographic number preceded by the capital letter M, followed by an abbreviated subject number.

For example:

M(200)2

where:

M = Map

(200) = Geographic region of the United States

2 = Abbreviation for the subject number 203—geology.

The introduction, which follows this abstract, provides detailed procedures on the construction of complete call numbers for works falling into the framework of the aforesaid classification schedules.

The tables following the introduction can be quickly accessed through the use of the newly expanded subject index.

The purpose of this publication is to provide the earth science community with a classification and retrieval system for earth science materials, to provide sufficient explanation of its structure and use, and to enable library staff and clientele to classify or access research materials in a library collection.

## INTRODUCTION

The newly revised classification system presented in this report is for use in the U.S. Geological Survey (USGS) Library. The classification system has been developed over the years since 1904 to meet the ever-changing needs of increased specialization and new areas of study in the earth sciences.

Prior to the administration of Fred Boughton Weeks, 1903–08, the library lacked a classification scheme. The Dewey Decimal system for geologic material was not sufficiently developed to accommodate the range of specialized material collected at the USGS Library, and the Library of Congress schedules had not yet been published. Patrons and library staff were concerned about continued development of the collection without an acceptable classification scheme.

Mr. Weeks and bibliographer John M. Nickles of the library staff, with the assistance of three consultants from the New York Public Library, developed a classification system designed specifically for an earth science library. Six schedules were outlined. The first and principal schedule, that of subject classification, consists primarily of the disciplines in the earth sciences, such as mineralogy and paleontology. The related pure sciences are included insofar as they augment the earth sciences; for example, physics, chemistry, engineering, and so forth. The schedule allows for integration of general works throughout.

Five schedules were designed for special collections. Four are grouped according to the originating source. These are:

- Geological survey collection—contains the monographs and periodicals issued by geological surveys of the world.
- Earth science periodical collection—contains publications issued by societies, trade associations, and universities throughout the world (G schedule).
- Government documents collection—contains publications issued by federal, state, provincial and local governments throughout the world (P schedule).
- General science periodical collection—contains general science publications issued by societies, associations, and universities throughout the world (S schedule).

The final schedule, the earth science map collection, contains earth science maps from all sources mentioned above. The common collection theme for all of these schedules is earth science and related materials of an interdisciplinary nature.

One of the unique aspects of the USGS classification schedules is the system of geographic numbers that was developed for use with them. Each geographic number represents a specific region and, when appropriate, may be combined with any subject number. The geographic numbers are in parentheses, which makes them highly visible and thus immediately recognizable when scanning for a particular locale. For example, the subject number 203 represents general works on geology. When the geographic number for the United States, (200), is added to the subject number, for example, 203(200), the resulting number stands for the geology of the United States. Using the same methodology, the geology of California is 203(276), and the geology of the Soviet Union is 203(570).

When the geographic number stands alone, it represents the publications of a national, state or provincial geological survey; for example, (276) is the number for the Geological Survey of California. When the letter G is combined with the same geographic number, for example, G(276), the resulting number represents earth science periodicals issued in California. Similarly, S(276) is for general science periodicals in California, and P(276) is for government documents issued by the State of California.

The notation for maps consists of the letter M added to a geographic number for the region and a subject number that is often abbreviated. For example, M(200)2 is the classification for a geological map of the United States, and M(276)298 is the notation for a geochemistry map of California.

In the following text, the particulars of each schedule are discussed, and instructions are provided for constructing numbers according to the Survey Library classification scheme.

## Subject Classification Schedule

The subject classification schedule has three main divisions: general works, earth sciences, and pure sciences. The collection consists chiefly of monographs but also includes those periodicals that are narrow in scope. All international periodicals and those issued by an international agency are also classified in this schedule.

### A. General outline of the subject classification schedule.

#### General works:

001–095: Includes science, computer science, information systems, bibliography, directories, dictionaries, and biography.

#### Earth sciences:

101–190: Mineralogy and petrology.  
 201–298: General geology, geologic hazards, tectonics, structural geology, geophysics, and geochemistry.  
 301–371: Historical and stratigraphic geology.  
 401–471: Mineral resources, mineral industries, and mining.  
 501–590: Geography/geomorphology, meteorology, landforms, and oceanography.  
 601–699: Paleontology.

#### Pure sciences:

701–795: Mathematics, astronomy, geodesy, engineering, and hydrology.  
 801–895: Physics and chemistry.  
 901–999: General biology, ecology, evolution, botany, agriculture, forestry, and zoology.

## B. Constructing call numbers.

Constructing call numbers for the subject classification schedule is basically the same as for any of the schedules. Those differences that occur are mentioned under the appropriate schedule. A typical call number consists of a classification number and a shelf list number.

### (1) Subject classification number.

The subject classification number is obtained from the subject schedule (see Sections 2–10) that is outlined on page 2. The index to this schedule is a useful guide in determining the number to use.

### (2) Geographic notations.

The geographic number schedule contains a specific number for each country of the world. The numbers, which range from (000) to (995), also include states and provinces for some of the countries, as well as for oceans and planets. When a geographic number is added to a subject number, the resulting number indicates both a subject area and the geographic area where the research took place.

The following example illustrates this construction.

Citation:

China's energy and mineral industries: current perspectives, edited by James P. Dorian and David G. Fridley, 1989.

Energy = 580—from subject schedule

China = (610)—from geographic schedule

Classification number: 580(610)

### (3) Shelf list numbers.

The shelf list number contains information about the main entry of the piece being classified and also provides the work with its singular location on the shelf or in the data base. The first part of the number consists of an uppercase letter together with a three digit number representing the main entry. The title mark, a lowercase letter, is taken from the first letter of the first distinctive word in the title. The title mark is always used when the main entry is an author; it may be needed for a title main entry to make the call number unique. In this case, successive title words are used. Use successive letters for the title mark when the title is one word.

To complete the classification number for the example given above, a shelf list number is needed. The shelf list number is constructed with the use of the Library of Congress (L.C.) shelf listing tables (see p. 8). Note that the main entry will be the title, "China's energy and mineral industries," because

the work is edited rather than authored. Assuming a title mark is needed for uniqueness, the shelf list number becomes:

China's = C546—from L.C. tables

Energy = e—title mark for second word of title

Shelf list number = C546e

Therefore:

580(610)

C546e

### (4) Date in call numbers.

The imprint date is now added to all monographic call numbers, whereas previous to 1989, the date was used for second and successive editions only. Call numbers for congresses, however, use the date of the congress rather than the year of publication. In either case, dates are added after the shelf list number. For the example given above, the completed call number becomes:

580(610)

C546e

1989

If this same work had been authored, the shelf list number would appear as:

Dorian, James P. = D674—L.C. shelf list tables

China's = c—Title mark

Shelf list number = D674c

The complete call number including imprint date becomes:

580(610)

D674c

1989

### (5) Size in call numbers.

Publications in the USGS library are grouped according to size: octavo, quarto, folio, and super-folio. The differences are designated by the addition of a lowercase letter for all but the octavo size, which does not receive a distinguishing mark. The sizes and their notations are given below.

Octavo up to 28 cm

Quarto q 28.1–33 cm

Folio f 33.1–46 cm

Superfolio ff 46.1 cm. and above

This notation precedes the shelf list number. Thus, a quarto of 29 cm is designated in the call number as:

759

qG28

1989

If that same work were a folio of 34 cm, the call number would be:

759  
fG28  
1989

(6) Translations.

For translations, the second part of the shelf list number has a different construction. When the title of the original publication is known, the title mark is taken from the original work. Following the title mark, an uppercase letter representing the language of the translation is added. For example, the shelf list number for an English translation of a German work entitled, "Geschichte des Vulkanismus," would be H577gE, where the g stands for "Geschichte ...," the German title, and the E stands for the translation into English. When the original title is not known, the title mark comes from the translation.

(7) Restricted material.

Library publications having restricted use for authorized personnel only are starred. The \* precedes the classification number.

## Geological Survey Schedule

The geological survey schedule contains periodicals and monographs issued by the geological surveys of the world. These works are classified according to the location of the geological survey issuing the publication and therefore are given the geographic number for that region. The geographic number is obtained from the geographic number schedule (see Section 11).

### A. Constructing the call number for monographs.

Call numbers in the geological survey schedule consist of a geographic number, a shelf list number, and, when the piece is a monograph, a date. An example follows:

(1) Citation from title page for monographic piece with author main entry:

Ground-water resources of the Surman area, Tripolitania, United Kingdom of Libya, by William Ogilbee and R.C. Vorhis, U.S. Geological Survey.

Classification number: (200) = for USGS  
Shelf list number: 344 = for author  
Title mark: g = for title  
Issuing date 1989 = imprint

(2) Citation from title page for monographic piece with title main entry:

Characterization of organic contaminants in environmental samples associated with Mount St. Helens, by Wilfred E. Pereira... [and others], U.S. Geological Survey.

Classification number: (200) = for USGS  
Shelf list number: C372 = for title  
Issuing date: 1980 = imprint

### B. Constructing the call number for serials.

Current practice uses the title main entry as the basis for the shelf list number. An exception to current practice are serials issued by the U.S. Geological Survey, Water Resources Division. Here are two examples of call numbers for publications issued by the Water Resources Division:

Series title: Water resources investigation reports.

Call number: (200)  
WRi

(200) = USGS  
WR = Water Resources Division  
i = title mark

Series title: Hawaii District activities, by U.S. Geological Survey, Water Resources Division, Hawaii District.

Call number: (200)  
WR3hd

(200) = USGS  
WR3 = Water Resources Division  
hd = title mark

## G Schedule

Earth science periodicals and monographic series of the following types are classified in the G schedule:

Geologic societies and associations.  
Geology departments of universities.  
Geologic organizations (nongovernmental).  
Publishers' series covering economic geology, geochemistry, geodynamics, geology, historical geology, mineralogy, paleontology, petrology, physical geology, and structural geology.

Publications dealing with paleontology and natural history, which are not publishers' series, are classified in 602 followed by a geographic number. This category includes:

Paleontological societies, institutes and associations.

Paleontological departments and laboratories of universities, paleontological departments of local governments, and museums of natural history.

#### A. Constructing the call number.

The classification number in the G schedule is composed of an uppercase G and a geographic number. The geographic number following the G usually represents the place of publication. There are two exceptions.

- (1) Publications that report on research in one region exclusively, but are published elsewhere, are given the geographic number of the research area.
- (2) Periodicals of national associations and societies are usually given the geographic number of the country in which they are located, rather than that of the local region in which they are issued. For example, the American Geological Society's number representing the United States is G(200).

The shelf list number is based on the name of the agency issuing the periodical and the title of the series. An example follows.

Citation from title page:

1989 Annual meeting of field trip guidebook,  
National Association of Geology Teachers.

Classification number = G(200)

Shelf list number = N376aft

N = National

376 = L.C. shelf list tables

aft = from annual field trip

Call number: G(200)  
N376aft

Publisher's series are the exception. These are shelf listed according to the main entry which, in the case of a series, is the title.

## P Schedule

Government documents for countries, states, and provinces of the world are classified in the P schedule when they are issued as serials. Government documents issued as monographs are classified in the subject schedule. There are two exceptions:

- (1) Publications of all geological surveys, both monographic and serial, are classified in the geological survey schedule (see Chapter 11)
- (2) Publications of all mining and mineral resources bureaus are classified in the subject classification schedule under the number 402 (see Section 5)

Constructing the call number:

The classification number in the P schedule is composed of an uppercase P and a geographic number. The geographic number represents the country, state, or province in which the government agency issuing the document is located.

The shelf list number is obtained from the name of the government agency publishing the work. Title marks are made from the agency's subordinate body and then from the title of the publication. When there is no subordinate agency, the title only is used. An example follows:

Citation:

Report to the Governor and the general assembly, by  
Georgia Nuclear Advisory Commission.

Classification number: P(233) = number for Georgia

Shelf list number: N = from Nuclear Advisory  
Commission

466 = 3 digit number—L.C.  
shelf list tables

r = from first word of title

Call number: P(233)  
N466r

## S Schedule

General science periodicals issued by universities, societies, associations, and publishers are classified in the S schedule. The topics included under general science are archaeology, astronomy, biology, chemistry, computer science, conservation, earthquakes, engineering, geography, geomorphology, geophysics, geothermal resources, geysers, glaciology, hydrology, mathematics, metals, mineral industries, mineral resources, mines and mining, natural resources, oceanography, ore deposits, petroleum, physics, pollution, precious stones, sedimentation, seismology, and volcanoes.

Classification numbers are constructed with an uppercase S and a geographic number indicating the place of publication. The same exceptions apply to the S schedule as are found in the G schedule.

The shelf list number consists of an uppercase letter representing the issuing body, a three digit number, and a title mark for the title. Publishers' series are shelf listed according to title main entry. Two examples follow:

Citation from title page: The Ohio Journal of Science, by the Ohio Academy of Science.

Classification number: S(251)

Shelf list number: O346o

Citation from title page: Pubblicazione, Università di Pavia, Tutela della Salute.

Classification number: S(550)

Shelf list number: qP228p

## Map and Nonmap Material Call Numbers

### A. Constructing monographic map call numbers:

#### (1) Classification numbers:

Map classification numbers are composed of three elements: the capital letter "M," a geographic number, and a subject number if needed.

#### (2) Shelf list numbers:

The three digit number in map shelf list numbers are constructed from C.A. Cutter's three digit author's table (Bloomberg and Evans, 1981).

Shelf list numbers for a monograph are constructed with two or three elements:

#### (a) Shelf list numbers having three elements:

A three element shelf list number is composed of a capital letter representing a subregion, quadrangle, valley, basin, or area; a three digit number taken from the Cutter tables; and a work letter representing the main entry. Later editions of the same map will have a date on the third line of the call number.

#### EXAMPLE:

Citation from title page: Ground-water status report, Pearl Harbor area, Hawaii, 1978, by Ronald L. Soroos and Charles J. Ewart.

Classification number:

M(950)49

M = map

(950) = Hawaii

49 = subject number: underground water.

Shelf list number:

P316s

P = subregion, Pearl Harbor

316 = Cutter tables

s = author: Soroos, Ronald L.

Call number: M(950)49

P316s

#### (b) Shelf list numbers with two elements:

When the contents of a map represents the entire region indicated by the classification number, the shelf list number is composed of the imprint date and a letter representing the main entry.

#### EXAMPLE:

Citation from title page: Bathymetric map of Fiji (with shallow seismicity), by I.B. Everingham.

Call number: M(960)24

1986e

Classification number:

M(960)24

M = map

(960) = Fiji Islands

24 = subject: seismology

Shelf list number:

1986e

1986 = Imprint date

e = author: Everingham, I.B.

### B. Map series classification:

Map series classification numbers consist of four elements: A capital letter "M," a geographic number representing the region, an abbreviated subject number, and the letter "s" identifying the map as a serial.

Map series shelf list numbers are constructed according to two alternatives:

#### (1a) Scale:

If all the sheets of the series use one scale, use an abbreviated form of the scale as the shelf list number according to the following procedures. Delete the initial "1" and the colon following it and the three zeros from the end of the scale; enter the remaining number in the Cutter line. If the scale is 1:100,000, delete the "1:" and the last "000" and enter "100" in the shelf list line.

#### EXAMPLE:

Citation from title page: Australia 1:100,000 geological series / Australia

Classification number: M(200)2s

M = map

(800) = Australia

2 = subject:

geology

s = serial

Shelf list number: 100 = abbreviated scale

Call number: M(800)2s  
100

Add a letter representing the author to the shelf list number to resolve conflicts with identical call numbers. If the conflict is not resolved, add an additional letter for the title of the map series.

(1b) Region/Scale:

When the region given on the map is a subregion of the geographic number in the classification number, the abbreviated scale is preceded by two letters representing the subregion.

EXAMPLE:

Citation from title page: Geological map of Greenland, 1:500,000.

Classification number: M(980)2s  
(980) = broad region  
2 = subject: geology  
s = serial

Shelf list number: Gr500  
Gr = subregion: Greenland  
500 = abbreviated scale

Call number: M(980)2s  
Gr500

Add letters to the region/scale shelf list number to resolve conflicts with identical call numbers as described in the previous paragraph.

(2) Cutter number:

Map series without a constant scale among various sheets are given shelf list numbers which includes a Cutter number:

EXAMPLE:

Citation from title page: Weinbau-Standortkarte Rheingau 1:50,000 / Hessisches Landesamt für Bodenforschung.

Classification number:  
M(530.4)518  
(530.4) = Württemberg (old number)  
518 = subject: soil formation

Shelf list number: R342h  
R = subregion: Rheingau  
342 = Cutter tables  
h = main entry: Hessisches Landesamt für Bodenforschung.

Call number: M(530.4)518  
R342h

C. Nonmap materials classification numbers:

Nonmap materials (posters and so forth) classification numbers are constructed with three elements: a capital letter "M," a parenthetical expression (NMM) meaning nonmap material, and a subject number.

EXAMPLE:

Citation: Fossil shark teeth, sponsored by the Department of Paleobiology.

Classification number: M(NMM)671

(NMM) = Nonmap material  
671 = subject: fossil sharks

Shelf list numbers:

The initial capital letter of the shelf list number represents the main entry, followed by a three digit number from the Cutter table, and is completed with a title mark when needed

EXAMPLE continued from above:

Shelf list number: F798

F = title main entry  
798 = from Cutter tables

Call number: M(NMM)671  
F798

Special Formats

During the last few years, the USGS Library has experienced an explosion of special format materials added to the data base: CD-ROM discs, floppy computer disks, microfilm, microfiche, phonograph records, slides, sound cassettes, and videocassettes. Since it is necessary to distinguish these formats from print materials, the Special Formats Committee has decided to add an appropriate word or abbreviation to the end of a standard call number. A list of special formats and the appropriate word or abbreviation that is added to the call number follows.

Format	Symbol
CD-ROM's	CD-ROM
Floppy disks	DISK
Microfiches	FICHE
Microfilms	MFILM
Phonograph records	PHONO
Slides	SLIDE
Sound cassettes	AUDIOC
Videocassettes	VIDEOC

Example for a floppy disk:

Citation: XYLOT : a plotting program for the IBM pc, using Lotus 1-2-3 and a Hewlett-Packard plotter, by Randall Schumann.

Call number: 036.9  
S385x  
DISK

## Regional Library Records

The USGS library has branches in Denver, Colo., Menlo Park, Calif., and Flagstaff, Ariz. These libraries will sometimes have additional notations as part of the classification number. Publications found in a regional library, and not held by Reston, Va., are marked with the notation D only, MP only, or F only, or any combination thereof. The notation is the last line of the call number. While this designation is common to all three branch libraries, other variations are found either in Denver or Menlo Park.

Denver Library.

Call numbers for reference publications are preceded by an uppercase L, indicating that they are locked in the reference case.

Special collections use FR for field records and PH for the photograph collection. These designations precede the call number.

Menlo Park Library.

Menlo Park places the following letters immediately preceding a Cutter letter to designate specific materials:

r to designate rolled maps  
v to designate folded maps  
vf to designate vertical folios

## Library of Congress Shelf List Tables

The USGS library uses the Library of Congress shelf list tables to construct the shelf list number. The tables are designed in a simple format, which is basically self-explanatory. A few points may need clarification.

- (1) Select table 1, 2, 3, or 4 depending on the first letter of the word being shelf listed. Given the name "Smith," use table 2, and look for m, the second letter in Smith. Below m is 6, therefore S6.
- (2) Table 5 is used to complete the shelf list number. Since the USGS library uses three digits for its number, two digits will come from table 5. These digits will correspond to the 3d and 4th letters in Smith:

i = 4  
t = 7

Thus: S647

1. After initial vowels  
for the second letter: b d l, m n p r s, t u-y  
use number: 2 3 4 5 6 7 8 9
2. After the initial letter S  
for the second letter: a ch e h, i m-p t u  
use number: 2 3 4 5 6 7-8 9
3. After the initial letters Qu  
for the third letter: a e i o r y  
use number: 3 4 5 6 7 9  
for names beginning Qa-Qt  
use: 2-29
4. After other initial consonants  
for the second letter: a e i o r u y  
use number: 3 4 5 6 7 8 9
5. When an additional number is preferred  
for the third letter: a-d e-h i-l m n-q r-t u-w x-z  
use number: 2\* 3 4 5 6 7 8 9  
(\*optional for third letter a or b)

## United States Shelf List Table

Use the following shelf list table for classing publications by United States Government agencies when classing in the subject schedule and the main entry is the government agency. A-Z below represent the first letter of the first word of the agency name following "United States."

A-B use U3  
C use U31  
D-F use U32  
G-J use U33  
K-M use U34  
N-O use U35  
P-R use U36  
S-U use U37  
V-Z use U38

For works by the United Nations use U22 as the shelf list number when classing in subject schedule and the United Nations agency is the main entry.

## ACKNOWLEDGMENTS

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## REFERENCES CITED

Bloomberg, Marty, and Evans, Edward G., 1981, Introduction to technical services for library technicians (4th ed.): Library Unlimited, Inc., p. 265.

## SECTION 1—GENERAL WORKS

(Add geographic numbers as needed)

- 001 Government publications not classified elsewhere
- 002 Exposition publications not classified elsewhere
- 005 Education: schools and colleges
- 008 Photographs
- 009 Miscellany  
(sketches, clippings, old records)
- 010 Periodicals: In general these are now classed in G( ), S( ), P( ) except for bibliographical works and those issued by international bodies or those international in scope, and periodicals which are very narrow in subject scope. These exceptions are all classed by subject, 001–999
- 020 Societies, universities, observatories  
(publications about these institutions)
- 025 Museums
- 030 Science  
(general works, including philosophy, history of science, and science and technology)
  - 030.3 Science and society  
(includes government role in science)
  - 030.5 Scientific labor force  
(includes analyses of labor force, educational and research opportunities)
- 031 Scientific congresses  
(for those on specific topics, see specific subject numbers)
- 032 Scientific institutions  
(publications about these institutions)
- 035 Scientific instruments and microscopy
  - 035.1 Congresses on instrumentation
- 035.4–039.8 COMPUTER SCIENCE
  - 035.4 Congresses, meetings, and so forth
  - 035.5 General works  
(includes data processing and computer software)
  - 035.6 Encyclopedias
  - 035.7 History
  - 035.8 Symbols and abbreviations
  - 035.9 Miscellany, essays, and collections
  - 036 Computers (general works)
    - 036.1 Analog
    - 036.2 Digital
    - 036.23 Microcomputers
    - 036.24 Minicomputers
    - 036.25 Mainframes
    - 036.3 Training manuals, techniques, user guides
    - 036.31 Desktop publishing
    - 036.4 Computer problems, exercises, and so forth
    - 036.5 Digital image systems and processing
    - 036.6 Computer graphics
    - 036.7 Computer security
    - 036.8 Computer law and legislation
    - 036.9 Computer language and programming
  - 037 Computer simulation and mathematical models

For works on computer simulation, and so forth, on a special topic, add a subject number to "037" according to the following procedures. Precede each subject number with a period. Numbers ending in "03" are abbreviated to one digit; for example, 203, 403, 503, and so forth become "2", "4", and "5"; that is, 037.2, 037.4, and 037.5. Numbers ending in zero are abbreviated as two digits; for example, 530 becomes "53" or 037.53. Petrology, 150.3, is abbreviated as "15" or 037.15; all other numbers constructed with decimal points retain the decimal; for example, petroleum engineering, 467.4, becomes 037.467.4. Use the following as examples for constructing additional numbers:

037.1 Mineralogy

037.15 Petrology

037.2 Geology

037.4 Mineral  
resources

037.5 Geography

037.58 Natural  
resources

037.78 Hydrology

037.81 Physics

037.85 Chemistry

038 Computer engineering, computer hardware

038.1 Congresses, meetings, and so forth

038.2 Microprocessors

038.3 Input-output equipment

038.4 Computer communications networks

038.5 Special computer components

038.6 Optical disc systems, CD-ROM, and so forth

039 System analysis and design  
(computer applications)

039.1 Congresses

039.2 Data base analysis and design

039.3 Data base management

039.4 Data base processing

039.5 Data base modeling  
(CODASYL, DBTG, DDL, DML)

039.6 Data base systems  
(ADABAS, SYSTEM 2000, IDMS, IMS, MAGNUM)

039.7 Artificial intelligence, expert systems

039.8 Pattern recognition

040 Information storage and retrieval systems, information services, science information and processing systems, and punched card systems.

For works on information storage and retrieval systems on a specific topic, add a subject number according to the procedures set down in 037 above.

Use the following numbers as examples for constructing additional numbers:

040.1 Mineralogy

040.15 Petrology

040.2 Geology

040.4 Mineral resources

040.5 Geography

040.58 Natural resources

040.78 Hydrology

040.81 Physics

040.85 Chemistry

040.919.53 Marine ecology

- 041 National bibliography  
(add a geographic number to designate the appropriate country)  
EXAMPLE:  
041(540) Bibl. of French pubs.
- 042 Subject bibliography  
For bibliographies on specific topics, add subject numbers according to the procedures given on page 10 for the classification number 037  
Use the following numbers as examples for constructing additional numbers:
- 042.010 Periodicals
  - 042.030 Science
  - 042.2 Geology
  - 042.203.3 Engineering geology
  - 042.295 Geophysics
  - 042.5 Geography
  - 042.53 Oceanography
  - 042.759 Cartography
  - 042.85 Chemistry
  - 042.919 Ecology
- 043 Bibliographies of the works of individual authors
- 043.1 U.S.
  - 043.2 British Commonwealth
  - 043.3 German
  - 043.33 Austrian
  - 043.35 Swiss
  - 043.37 Dutch
  - 043.4 French
  - 043.5 Italian
  - 043.59 Romanian
  - 043.6 Spanish
  - 043.69 Portuguese
  - 043.7 Russian and other slavic nationalities
  - 043.8 Scandinavian
  - 043.81 Norwegian
  - 043.82 Danish
  - 043.83 Swedish
  - 043.9 Other
- 044 Indexes to serials and lists of publications of societies  
(indexes are generally classed with the series that they index)
- 045 Library science
- 045.1 Periodicals
  - 045.2 Society publications
  - 045.3 Library schools
  - 045.4 Acquisition of books
  - 045.5 Classification and shelving
  - 045.6 Cataloging  
(includes lists of descriptors)
  - 045.7 Binding  
(includes restoration and conservation)
  - 045.8 Map librarianship
  - 045.9 Reference librarianship
- 046 Libraries
- 046.1 Reports
  - 046.3 Catalogs
  - 046.5 Other publications

- 046.7            Library automation
- 047            Archives and archive collections
- 048            Catalogs of research grants, projects, and so forth
- 050            General dictionaries.
- Shelf list numbers will include the following elements:
1. A capital letter and a one digit number representing the language. See list given below.
  2. A capital letter and a two digit number representing the main entry and constructed from L.C. shelf list tables.
- EXAMPLE:
- Citation from title page:  
The Random House dictionary of the English language.  
Editor: Jess Stein  
Call number: 050  
                  E5R36
- Use the following lists of letters with numbers to represent the language in the shelf list number
- |    |            |
|----|------------|
| A8 | Armenian   |
| B8 | Bulgarian  |
| C4 | Chinese    |
| C6 | Croatian   |
| C8 | Czech      |
| D2 | Danish     |
| D9 | Dutch      |
| E5 | English    |
| E8 | Estonian   |
| M7 | Mongolian  |
| F4 | Finnish    |
| F8 | French     |
| G3 | German     |
| G8 | Greek      |
| H8 | Hungarian  |
| I2 | Indonesian |
| I8 | Italian    |
| J2 | Japanese   |
| M7 | Mongolian  |
| N8 | Norwegian  |
| P8 | Portuguese |
| R7 | Romanian   |
| R9 | Russian    |
| S2 | Serbian    |
| S6 | Spanish    |
| T8 | Turkish    |
| U7 | Ukrainian  |
- 051            Bilingual and polyglot dictionaries  
                  (Construct shelf list numbers as instructed in 050 above)
- 051.1          Technical dictionaries
- For technical dictionaries on a specific subject, add a subject number to "051.1" according to the procedures given on page 10 for the classification number 037.
- Use the following numbers as examples for constructing additional numbers.
- |              |                        |
|--------------|------------------------|
| 051.1        | Technical dictionaries |
| 051.1.2      | Geology                |
| 051.1.203.3  | Engineering geology    |
| 051.1.467.4  | Petroleum engineering  |
| 051.1.536    | Marine sediments       |
| 051.1.919.53 | Marine ecology         |

- 051.2 Dictionaries of abbreviations and acronyms
- 052 General encyclopedias
- 053 Grammars, language manuals, rhetoric  
(Construct shelf list numbers by language as in 050)
- 053.2 Technical writing, style manuals, and so forth
- 054 Logic
- 055 Statistical yearbooks, almanacs
- 056 Membership directories  
For membership directories on a specific subject, add a subject number to “056” according to the procedures given on page 10 for the classification number 037.
- 057 Directories of organizations and institutions  
For organizational directories on a specific subject, add a subject number to “057” according to the procedures given on page 10 for the classification number 037.
- 059 Copyright laws
- 060 Nomenclature and classification  
(Not used after 1971)  
See also nomenclature and classification under specific topics: Mineralogy: 206; Petrology: 150.6; Geology: 206; Historical geology: 306; Mineral industries: 406; Paleontology: 606; Physics: 806; Chemistry: 850.6; Biology: 906.
- 065 Sociology and economics
- 065.1 Business administration  
(includes management of business and personnel and accounting)
- 065.2 Labor force and employment  
(includes works on its size and composition, wages and benefits, working conditions and habits, vocational guidance, labor relations and organization)
- 065.3 City and regional planning  
(includes population studies, general plans and proposals, housing, transportation, urban renewal, city government and finance. See 585.5 for urban land use planning)
- 065.4 Health
- 065.5 Education
- 065.6 Welfare
- 067 Statistics, graphics.  
(General works; for statistics on a certain subject, see subject number; for theory, see 719 or 718, mathematical statistics)
- 070 History
- 075 Philosophy (includes ethics) and psychology
- 080 Collected biographies  
(for collected biographies by region, country, state, or province, add a geographic number)
- 081–089 Individual biographies  
(do not use geographic numbers; construct shelf list number from last name of person who is subject of biography; construct title mark from last name of author)
- EXAMPLE:
- Title:  
Hugh Miller : the Cromarty Stonemason, by Charles D. Waterstone.
- Call number:  
081  
M615w
- 081 United States
- 082 English and Australian
- 082.1 Canadian
- 083 German
- 084 French
- 085 Italian
- 086 Spanish and Portuguese

	087	Russian and Slavic
	088	Scandinavian
	089	Other
090		Essays, collections, miscellany not classified elsewhere
095		Miscellaneous manuscript materials and collections

## SECTION 2—MINERALOGY AND PETROLOGY

(Use geographic numbers for regions as needed)

- 101 Congresses (1972+ ) (see 401 for mining congresses)
- 103 Textbooks and general treatises
- 104 Elementary and older textbooks; popular mineralogy, rockhounding
- 105 Catalogs and tables
- 106 Nomenclature and classification
- 107 History
- 108 Technique
- 109 Essays, collections and miscellany
- 110 Crystallography and optical mineralogy
  - 111 Mathematical crystallography
  - 112 Crystallization  
(crystal growth, solidification of crystals)
  - 113 Physical properties of crystals
- 115 Determinative mineralogy
  - 116 Laboratory manuals and tables
  - 117 Special topics  
(includes color, fluorescence, microprobe analysis, optics, specific gravity, thin sections)
  - 118 Chemical analysis  
(not used after 1971, see 880–888)
  - 119 Chemical mineralogy
- 120 Descriptive mineralogy (general)
  - 122 Sulfides, selenides, tellurides, arsenides, antimonides
  - 123 Sulfo-salts  
(sulfarsenites, sulfantimonites, sulfobismuthites)
  - 124 Haloids (chlorides, bromides, iodides, fluorides)
  - 125 Oxides
  - 126 Oxygen salts
    - 126.1 Carbonates
    - 126.2 Silicates, titanates, zeolites, and clay minerals
    - 126.3 Niobates, tantalates
    - 126.4 Phosphates, arsenates, vanadates, antimonates, nitrates
    - 126.5 Borates, urenates
    - 126.6 Sulfates, chromates, tellurates
    - 126.7 Tungstates, molybdates
  - 127 Salts of organic acids; oxalates, mellates, and so forth
  - 128 Hydrocarbon compounds
- 130 Meteorites (for meteors, see 734.6)
- 135 Pseudomorphs  
(minerals whose outward crystal form is that of another mineral species); paramorph (a pseudomorph with the same composition as the original crystal); paramorphism (property of a mineral to change its internal structure without changing its external form or chemical composition)
- 140 Experimental investigations  
(deformations, shock and blast experiments in mineralogy, and so forth)
- 150 Petrology  
(origin, occurrence, and structure of rocks)
  - 150.3 Textbooks, treatises, general works
  - 150.4 Elementary textbooks
  - 150.5 Catalogs and tables
  - 150.6 Nomenclature and classification
  - 150.7 History

	150.8	Petrological technique
	150.9	Essays and collections
153		Physical properties of rocks
155		Rock analysis
160		Determination of minerals in rocks
165		Structural petrology
		(rock structure of thin sections or micro scale including petrotectonics and petrofabric analysis; for rock structure on a moderate to small scale, see structural geology at 260; for rock structure on the broad scale or for the historical phase, see tectonics at 210)
170		Igneous and volcanic rocks
		(includes peridotite, kimberlite, ultrabasic rocks, and basalt; for magmas or magmatism, see 281)
180		Sedimentary and carbonate rocks
		(includes dolomite, evaporite, limestone, magnesite, and nubium sandstone)
	180.3	Paleopedology
		(study of soils of past geologic ages and their age determination)
185		Crystalline rocks
190		Metamorphic and metasomatic rocks
		(includes metasomatite and skarn; for metamorphism and metasomatism, see 283)

## SECTION 3—GENERAL, STRUCTURAL, AND DYNAMIC GEOLOGY

(Use geographic numbers for regions as needed)

- 201 Geological congresses  
(includes stratigraphic conferences)
- 202 Collections of writings by individual geologists
- 203 Geological textbooks and general treatises
  - 203(050) Submarine geology  
(geology of oceans and seas in general; for the geology of specific oceans and seas, substitute the appropriate geographic number from (051)–(096))
  - 203.2 Earth sciences (multidisciplinary works)
  - 203.3 Engineering geology
  - 203.4 Effects of underground explosions
  - 203.5 Military geology
  - 203.6 Environmental and urban geology
  - 203.7 Nuclear geology, radiogeology, and isotope geology
- 204 Elementary textbooks, older works, popular geology
- 205 Catalogs
- 206 Nomenclature and classification
- 207 History of geology  
(for history of economic geology and mining history see 407)
- 208 Geological technique  
(includes field and laboratory applications)
  - 208.2 Mathematical geology and statistics in geology
- 209 Miscellany, essays and collections
  - 209.1 Geological guidebooks  
(monographic)
- 210 Dynamic and physical geology  
(includes works on geodynamics; neotectonics: the study of active earth movement, including uplift and tilt; tectonics: the study of rock structure on the broad scale including its interpretation; for works on rock structure on a moderate to small scale, see structural geology at 260; for works on rock structure on a thin section or micro scale, see structural petrology at 165)
  - 211 Atmospheric agencies, weathering
  - 212 Extraterrestrial forces
  - 213 Erosion  
(includes sediments, sedimentation and deposition, and general sediment transport; for works on shoreline building or destruction through sediment transport, see 521)
  - 214 Underground water action
  - 216 Organic agencies
  - 218 Thermal or igneous agencies  
(earth temperature; for works on geothermal resources, see 230)
  - 219 Experimental investigations on geology and subtopics
- 220 Volcanoes, volcanic eruptions, and volcanism
  - 225 Extinct volcanoes
  - 229 Maars
- 230 Geysers, hot springs, and so forth  
(includes geothermal resources)
- 240 Earthquakes, seismology  
(includes “manmade” earthquakes)
  - 240.1 Conferences
  - 240.2 Earthquake engineering and effects of earthquakes on construction
  - 240.3 Geomorphological effects of earthquakes
  - 240.4 Earthquake prediction
  - 240.5 Induced seismicity

- 240.6 Soil liquefaction
- 240.8 Seismometry
  - (instrumental aspects of seismology)
- 245 Landslides, avalanches, rockslides, mudslides
- 248 Local land subsidences, sinkholes
- 249 Natural disasters
  - (includes geological hazards and disaster relief; for specific geologic hazards and associated disasters, see the specific types: earthquakes: 240; landslides: 245; subsidences: 248; hurricanes and typhoons: 515)
  - 249.1 Congresses
  - 249.2 Natural disasters' effects on construction
- 250 Glaciology and glaciers
  - 251 Drumlins
    - (ridges of compact glacial till built and shaped under margin of ice)
  - 252 Eskers
    - (ridges of stratified sand and gravel deposited by subglacial stream)
  - 253 Moraines
    - (mounds or ridges of unstratified glacial drift deposited by a glacier)
    - Detritus (fragmental material from older rock moved from place of origin)
  - 254 Erosion of glaciers
  - 255 Glacial lakes (extinct)
  - 256 Ice and snow, periglacial phenomena
    - 256.1 Permafrost
    - 256.2 Frozen ground
      - (includes cold region engineering and construction conditions)
- 260 Structural geology
  - (the study of rock structure on a moderate to small scale including form, arrangement, description, representation, and analysis; for rock structure on a broad scale, see tectonics at 210; for rock structure on a thin section or micro scale, see structural petrology at 165)
  - 267 Lithosphere
- 270 Deformations
  - (includes deformation mechanics; rheology (study of the deformation and flow of matter); joints (fractures or parting in rocks without displacement); grabens (elongated, depressed crustal blocks, bounded by faults on their long sides); domes (large magmatic or migmatitic intrusions having convex surface and sides sloping away in low angles); necks (narrow strip of land connecting two large areas); stocks (igneous intrusions less than 40 mi<sup>2</sup> in surface exposure)
  - 272 Concretions
  - 276 Faulting and folding
- 280 Intrusions, laccoliths
  - 281 Magmas (magmatism)
    - (for igneous or magmatic rocks, see 170)
  - 283 Metamorphism, igneous metamorphism, and metasomatism
    - (for metamorphic and metasomatic rocks, see 190)
- 291 Oscillation
  - (includes earth movement and earth tilting)
- 293 Mountain making (orogeny), epeirogeny
- 295 Geophysics
  - (see 426 for geophysical prospecting)
  - 295.2 Geophysical and seismic profiling
  - 295.3 Cosmic physics, Earth tides, space plasma, and so forth
  - 295.5 Nuclear geophysics
- 296 Geomagnetism (terrestrial magnetism), aeromagnetism, and magnetic surveys (prior to 1972 classed in 746; see 314 for paleomagnetism)
- 297 Isostasy
  - (condition of equilibrium in the Earth's crust and mantle)

- 297.5 Gravity investigations  
(includes gravity anomalies; prior to 1972, see 748)
- 298 Geochemistry
  - 298.1 Conferences
  - 298.2 Inorganic geochemistry
  - 298.3 Biogeochemistry (organic geochemistry), biomineralization, and humus
  - 298.4 Fluid inclusions

## SECTION 4—HISTORICAL GEOLOGY

(Add geographic numbers for regions as needed)

- 302 Collections (sets)
- 303 Historical geology textbooks and general treatises  
(includes general stratigraphy)
- 305 Stratigraphical tables
- 306 Nomenclature and classification
- 308 Geologic maps and atlases  
(for books on map making, see 759)
  - 308.4 Lists of geological maps
- 309 Essays and collections
- 310 Earth origin (geogenesis)
- 311 Continental drift  
(includes plate tectonics and sea-floor spreading)
  - 311.1 Conferences
- 312 Earth crust, Earth mantle
- 313 Earth (internal structure)
- 314 Paleogeophysics  
(includes paleomagnetism)
- 315 Geologic time, geochronology, stratigraphic correlation, age determination  
(includes potassium-argon dating, radiocarbon dating, tree-ring dating, and so forth)
- 320–354 Stratigraphic time periods
  - 320 Precambrian
    - 320.1 Archean
    - 320.2 Proterozoic
  - 330 Paleozoic
    - 332 Cambrian
    - 333 Ordovician
    - 334 Silurian
    - 335 Devonian
    - 336 Carboniferous (Pennsylvanian and Mississippian)
    - 337 Permian
  - 340 Mesozoic
    - 341 Triassic
    - 342 Jurassic
    - 343 Cretaceous
  - 350 Cenozoic
    - 351 Tertiary
    - 352 Quaternary
      - 353 Pleistocene  
(includes glacial epochs)
      - 354 Recent (Holocene)
- 360 Paleogeography and geologic history
  - 361 Precambrian
    - 361.1 Archean
    - 361.2 Proterozoic
  - 362 Paleozoic
    - 362.1 Cambrian
    - 362.2 Ordovician
    - 362.3 Silurian
    - 362.4 Devonian
    - 362.5 Carboniferous
    - 362.6 Permian

363	Mesozoic		
	363.1	Triassic	
	363.2	Jurassic	
	363.3	Cretaceous	
364	Cenozoic		
	364.1	Tertiary	
	364.2	Quaternary	
	364.3	Pleistocene	
	364.4	Recent (Holocene)	
370	Paleoclimatology		
371	Paleohydrology		

## SECTION 5—MINERAL INDUSTRIES, MINERAL RESOURCES, AND ECONOMIC GEOLOGY

(Add geographic numbers for regions as needed)

- 401 Congresses
- 402 Mineral resources agencies and mining bureaus of countries, states, and provinces
- EXAMPLES:
  - 402(200) U.S. Bureau of Mines
  - 402(274) Arizona. Department of Mineral Resources
  - 402(120) Nova Scotia. Department of Mines
- 403 Mineral resources and mineral industries  
(textbooks and general treatises)
- 404 Economic geology  
(includes popular and elementary texts)
- 405 Encyclopedias, catalogs, and mineral locations
- 406 Nomenclature and classification
- 407 History  
(includes mining history)
- 408 General mineral statistics
- 409 Essays and collections
- 410 Ore deposits  
(metallurgy; includes all aspects of ore deposits, such as their origin, formation, and geochemical and thermodynamic aspects)
- 411 Lodes, veins, dikes
- 412 Rock-forming minerals
- 413 Trace elements (minor elements, accessory elements)
- 414 Placer deposits
- 415 Analyses for economic use
- 416 Microscopic determination
- 420 Mines and mining
  - 421 Mining law and legislation
  - 422 Mine prospectuses and reports
  - 424 Mine surveying
  - 425 Mining methods and working  
(includes mining engineering, mine safety, strip mining, and rock bursts)
    - 425.2 Mining subsidences
- 426 Prospecting  
(geophysical methods in general, including water and well logging; for oil well logging, see 467.4)
  - 426.2 Geochemical prospecting
  - 426.3 Seismic prospecting
  - 426.4 Other specific geophysical prospecting methods  
(electric, nuclear (radioactive), gravity, magnetotelluric, torsion balance, and so forth)
- 427 Hydraulic mining
- 428 Taxation and so forth
- 429 Metallurgy  
(includes flotation, leaching, and ore dressing)
  - 429.1 Gold (gold and silver)
  - 429.2 Silver (silver and lead)
  - 429.3 Iron and steel
  - 429.4 Copper
  - 429.5 Lead, zinc
  - 429.7 Other metals
  - 429.8 Assaying and ore analysis methods
  - 429.9 Machinery
- 430 Metals in natural state

- 431 Gold, silver
- 432 Mercury (quicksilver)
- 433 Iron (includes magnetite), manganese
- 434 Copper, tin
- 435 Lead, zinc
- 436 Nickel, cobalt
- 437 Antimony and allied metals
- 438 Aluminum
- 439 Other metals
  - Bismuth
  - Cadmium
  - Chromium
  - Gallium
  - Germanium
  - Hafnium
  - Indium
  - Molybdenum
  - Niobium (columbium)
  - Rhenium
  - Scandium
  - Tantalum
  - Technetium
  - Thallium
  - Titanium
  - Tungsten (wolfram)
  - Vanadium
  - Yttrium
  - Zirconium
- 439.1 Platinum metals
  - Iridium
  - Osmium
  - Palladium
  - Platinum
  - Rhodium
  - Ruthenium
- 439.2 Alkali earth metals
  - Barium
  - Beryllium
  - Calcium
  - Magnesium
  - Radium
  - Strontium
- 439.21 Alkali metals
  - Cesium
  - Francium
  - Lithium
  - Potassium
  - Rubidium
  - Sodium
- 439.3 Lanthanide series (rare earth metals)
  - Cerium
  - Dysprosium
  - Erbium
  - Europium

- Gadolinium
- Holmium
- Lanthanum
- Lutetium
- Neodymium
- Praseodymium
- Promethium
- Samarium
- Terbium
- Thulium
- Ytterbium
- 439.4 Actinide series
  - Actinium
  - Americium
  - Berkelium
  - Californium
  - Curium
  - Einsteinium
  - Fermium
  - Lawrencium
  - Mendelevium
  - Neptunium
  - Nobelium
  - Plutonium
  - Protactinium
  - Thorium
  - Uranium
- 439.5 Nonmetallic elements
  - Arsenic
  - Boron
  - Hydrogen
  - Nitrogen
  - Oxygen
  - Phosphorus
  - Selenium
  - Silicon
  - Tellurium
- 439.6 Halogens
  - Astatine
  - Bromine
  - Chlorine
  - Fluorine
  - Iodine
- 439.7 Inert gases
  - Argon
  - Helium
  - Krypton
  - Neon
  - Radon
  - Xenon
- 440 Nonmetallic minerals (industrial minerals 440–459.9)
  - 441 Clay
    - (includes clay minerals, attapulgite, bauxite, bentonite, kaolin, laterite, refractory materials, illite, smectite, and ceramic materials (potter's clay, potter's earth, pot clay, pot earth))

- 441.1 Clay products  
(includes ceramics, pottery, earthenware (clayware), stoneware, porcelain, brick, and tile)
- 442 Cement and concrete
- 443 Fertilizers
  - Apatite
  - Monazite
  - Potash
  - Phosphates
  - Nitrates
- 444 Salt
  - Gypsum
  - Alum
  - Alunite (alumite)
  - Alum stone
- 445 Sulfur, pyrite
- 446 Asbestos
  - 446.1 Amphiboles
    - Actinolite
    - Amosite
    - Anthophyllite
    - Crocidilite
    - Tremolite
  - 446.2 Serpentinite
    - Antigorite
    - Chrysotile
  - 446.3 Mica  
(micaceous minerals)
    - Biotite
    - Lepidolite
    - Margarite
    - Muscovite
    - Paragonite
    - Phlogopite
    - Roscoelite
    - Vermiculite
    - Zinnwaldite
- 447 Abrasive materials
  - Corundum
  - Emery
  - Garnet
  - Pumice
  - Volcanic ash
- 448 Mineral paints  
(including pigments; for example, ochre)
  - 448.1 Barites
- 451 Talc
- 452 Fluorite (fluorspar)
- 453 Silicates  
(for mineralogical aspects, see 126.2)
  - Conglomerates
  - Feldspar
  - Fuller's earth
  - Glass
  - Kyanite (cyanite)

- Quartz
- Sand (for aggregate aspects of sand, see 479)
- Zeolites
- 454 Carbonates
  - (for mineralogical aspects, see 126.1; for petrological aspects, see 180)
  - Lime
  - Chalk
  - Marl
  - Limestone
  - Dolomite
- 459 Siliceous earth
  - Diatomite
  - (diatomaceous earth, tripoli)
  - Radiolarian earth
  - Tripolite
- 459.9 Other nonmetallic minerals
- 460 Carbon and its compounds
  - (including hydrocarbons, methane)
  - 461 Coal
    - 461.1 Coal congresses
    - 461.3 Environmental aspect of coal production; for example, coal desulfurization (excluding resources development at 585.3)
    - 461.4 Coal technology
      - (includes liquefaction and gasification)
    - 462 Anthracite
    - 463 Bituminous
    - 463.5 Lignite
  - 464 Peat
    - 464.1 Caustoliths
      - (combustible rocks usually of organic origin (for example, coal or peat) inorganic deposits also occur (for example, sulfur, asphalt, graphite))
      - Caustobioliths
      - Caustophytoliths
      - Caustozooliths
- 465 Asphalt
- 466 Graphite
- 467 Petroleum, natural gas, oil shales, oil fuel
  - (includes economic aspects)
  - 467.1 Congresses
  - 467.3 Petroleum chemistry
  - 467.4 Petroleum technology, petroleum engineering, oil well logging, and mud logging
    - (includes petroleum refineries)
  - 467.5 Petroleum law and legislation
  - 467.7 Petroleum industry, leases, pipeline, production, and well supervision
  - 467.8 Helium
  - 467.9 Petroleum (miscellaneous)
- 468 Manufactured fuels
- 469 Other compounds, including amber and jet
- 470 Building and ornamental stones (for petrological aspects, see 170–190)
  - 471 Marble, limestone
  - 472 Onyx
  - 473 Sandstone, quartzite
  - 474 Granite
  - 475 Slate

- 476 Soapstone
- 477 Trap
- 478 Other building and ornamental stones
- 479 Construction and road materials: aggregate (crushed stone, sand, and gravel); lightweight aggregate (pumice, volcanic cinders, expanded shale, foam slag, expanded perlite, and expanded vermiculite)
- 480 Precious stones, gems
  - 480.5 Gems (artistic aspects)
  - 481 Diamonds
  - 482 Sapphires
  - 483 Rubies
  - 483.5 Emeralds
  - 484 Opal, garnet
  - 485 Agate
  - 486 Jade
  - 487 Tourmaline
  - 488 Pearls
  - 489 Amethyst, kunzite, and others
- 490 Underground water, aquifers, ground-water flow, ground-water supply, hydrogeology
  - 491 Springs
  - 492 Artesian wells and water wells in general
  - 493 Mineral waters (before 1972, see 491)
  - 494 Contamination, pollution
  - 495 Composition, analysis

## SECTION 6—PHYSIOGRAPHY, GEOMORPHOLOGY, AND PHYSICAL GEOGRAPHY

(Use geographic numbers for regions as needed)

- 500 Topographic maps
  - 500.1 Landsat maps, photo maps, and aerial photo maps  
(The numbers 500 and 500.1 are reserved for map classification)
- 501 Congresses
- 502 Exploring expeditions
- 503 Textbooks and general treatises on physical geography and geomorphology
- 504 Geography, descriptive  
(economic and general geography)
- 505 Encyclopedias and yearbooks
- 506 Geographic names: gazetteers
- 507 History
- 508 Atlases and maps
  - 508.4 Lists and indexes of maps and map bibliography
- 509 Essays and collections
- 510 Meteorology
  - 511 Atmospheric physics  
(including temperature problems)
  - 512 Climatology, heat budget, climate change, global change
  - 513 Weather modification
- 514 Air pollution, atmospheric pollutants, radon
- 515 Winds, typhoons, hurricanes
- 516 Droughts
- 518 Soil formation, soil origin, loess  
(for other aspects of soils, see 768, 892, and 941)
- 520 Continents  
(for publications on Earth's crust, see 312)
- 521 Shorelines, beaches, coastal engineering  
(includes earth-water interfaces involving lakes, reservoirs, and seas; coastal zone management; and barrier islands)
  - 521.1 Coastal zone conferences
- 523 Fjords, submarine relief off coasts, continental shelf, continental margins
- 525 Coral reefs and islands
- 530 Oceanography, oceans
  - 530.01 Conferences
  - 530.02 Oceanographic instrumentation
  - 530.1 Atlantic Ocean, North and Baltic Seas
  - 530.2 Mediterranean and Black Seas
  - 530.3 Gulf of Mexico and Caribbean Sea
  - 530.4 South Atlantic Ocean
  - 530.5 Pacific Ocean
  - 530.6 Eastern Pacific and American coasts
  - 530.7 Indian Ocean, Bay of Bengal, and Red Sea
  - 530.8 Arctic Ocean
  - 530.9 Antarctic Ocean
  - 531 Ocean currents
  - 532 Tides, tide gages
  - 533 Waves, tsumanis
  - 535 Icebergs
  - 536 Marine sediments, ocean bottom, deep sea drilling projects (for specific oceans and seas, divide as in 530)
  - 537 Marine resources  
(includes ocean mining and ocean mining technologys; deep sea drilling (underwater drilling))

- 537.1 Conferences
- 537.2 Law of the sea, fishery law and legislation
- 537.5 Marine pollution
- 537.6 Manganese and ferromanganese nodules
- 538 Marine geophysics
- 539 Marine structures and engineering  
(includes offshore technology and marine platforms)
- 540 Landforms, physiography
  - 541 Mountains
  - 542 Plateaus
  - 543 Plains, prairies, savannas
  - 544 Hills and mounds
  - 545 Valleys
  - 546 Terraces and alluvium
  - 547 Caves and karst; sinkholes
  - 548 Deserts
  - 549 Dunes
- 550 Water features, inland waters (except oceans)
  - 551 Springs (see also 230, 491)
  - 552 Rivers, deltas, watershed systems, stream systems, floods, flood plains
  - 553 Waterfalls, cataracts, rapids, whirlpools
  - 554 Lakes and ponds  
(includes limnology)
  - 555 Drainage
  - 556 Swamps, moors, marshes, wetlands
  - 557 Estuaries and tidal marshes
  - 558 Bays and lagoons
  - 559 Glaciers (see also 250)
- 580 Natural resources  
(includes resource development, energy and power resources)
  - 580.1 Energy and power conferences
  - 580.3 Energy recovery from wastes
- 582 Environment  
(includes environmental law and policy)
  - 582.1 Conferences
- 583 Pollution  
(general pollution; includes pesticide occurrence, hazardous materials; acid rain, acid deposition; see 795 for water pollution; see 514 for air pollution; soil pollution)
  - 583.1 Conferences on pollution
- 585 Conservation  
(includes wildlife conservation and management)
  - 585.1 Conservation conferences
  - 585.3 Resource conservation  
(includes environmental impacts and analysis of resource development)
  - 585.4 Environmental impacts and analysis of human population; demographic studies and environment
  - 585.5 Land use planning, environmental impacts and analysis of land use  
(includes urban and rural planning, public land policy, and reclamation of land associated with strip mining)
  - 585.7 Parks, open spaces, wilderness areas, and recreation areas; environmental impacts and analysis of these areas
- 590 Description and travel

## SECTION 7—PALEONTOLOGY

(Add geographic numbers for regions as needed)

- 601 Congresses
- 602 Collections
- 603 Textbooks and general treatises
  - 603.1 Micropaleontology
- 604 Elementary textbooks
- 605 Catalogs
- 606 Nomenclature and classification
- 608 Technique
- 609 Miscellany, essays, and collections
- 610 Ichnofossil (fossil footprints, fossil tracks), trace fossils
- 611 Undetermined material (problematica, unidentifiable fossil fragments, and so forth), conodonts
- 612 Paleocology
- 613 Paleobiology
  - 614 Paleozoology
    - 614.2 Invertebrata
      - 615 Protozoa
        - 616 Rhizopoda  
(amoeba and so forth)
        - 617 Foraminifera
        - 618 Radiolaria
      - 620 Coelenterata
        - 621 Porifera  
(sponges)
        - 625 Anthozoa  
(corals)
        - 626 Hydrozoa  
(hydra, graptolites, stromatoporoids, and so forth)
      - 630 Echinodermata
        - 631 Pelmatozoa  
(crinoids, cystoids, and blastoids)
          - 632 Crinoidea (feather stars) and Cystoidea (cystoids)
          - 633 Blastoidea
        - 634 Asterozoa  
(starfish, brittle and basket stars)
          - 635 Ophiuroidea  
(brittle and basket stars)
          - 636 Asteroidea  
(starfish)
        - 637 Echinozoa (sea urchins and sea cucumbers)
          - 638 Echinoidea  
(sea urchins)
          - 639 Holothuroidea  
(sea cucumbers)
      - 640 Vermes  
(flat worms (Platyhelminthes) and round worms (Nemathelminthes))
        - 645 Annelida  
(earth worm)
      - 650 Molluscoidea
        - 651 Bryozoa
        - 652 Brachiopoda
      - 654 Mollusca, conchology

- 655 Bivalvia  
(lamellibranchiata or pelecypoda)
- 656 Scaphopoda
- 657 Polyplacoph  
(amphineura)
- 658 Gastropoda  
(snails, includes graptolite)
- 659 Cephalopoda  
(includes squid, octopus, nautilus, and ammonites)
- 660 Arthropoda
  - 662 Crustacea  
(crabs, lobsters, crayfish, and so forth; includes ostracoda)
  - 662.3 Trilobites
  - 665 Arachnida  
(spiders, scorpions, and so forth)
  - 666 Myriopoda  
(centipedes and millipedes)
  - 667 Insecta
- 670 Vertebrata
  - 671 Pisces  
(fish)
  - 673 Amphibia  
(frogs, salamanders, newts, and so forth)
  - 675 Reptilia  
(dinosaurs, ornithischia, lizards, snakes, and so forth)
  - 677 Aves  
(birds)
  - 679 Mammalia
    - 679.9 Man  
(Paleolithic period)
    - 679.91 Archeology
- 680 Stratigraphic paleontology  
(Stratigraphic studies on a specific class of animals or plants are classed under the number for that class of animal or plant)
  - 681 Precambrian
    - 681.1 Archean
    - 681.2 Proterozoic
  - 682 Paleozoic
    - 683 Cambrian
    - 684 Ordovician
    - 685 Silurian
    - 686 Devonian
    - 687 Carboniferous  
(includes Mississippian and Pennsylvanian)
    - 687.5 Permian
  - 688 Mesozoic
    - 688.1 Triassic
    - 688.4 Jurassic
    - 688.7 Cretaceous
  - 689 Cenozoic
    - 689.1 Tertiary  
(includes Paleogene and Neogene)
    - 689.5 Quaternary
      - 689.6 Pleistocene

- 689.7 Recent (Holocene)
- 690 Paleobotany
  - 690.1 Precambrian
  - 690.2 Paleozoic
  - 690.3 Mesozoic
  - 690.4 Cenozoic
- 695 Catalogs, lists, and so forth
  - 696 Palynology  
(includes spores and fossil spores)
  - 697 Cryptogams  
(spore bearing plants: ferns, mosses, algae, and fungi)
    - 697.1 Thallophytes  
(fungi, algae, diatoms, and so forth)
    - 697.2 Bryophytes  
(liverworts and mosses)
    - 697.3 Pteridophytes  
(ferns)
  - 698 Phanerogams  
(seed or flowering plants)
    - 698.1 Gymnosperms  
(evergreens)
    - 698.4 Angiosperms  
(flowering plants)
    - 698.5 Monocotyledons  
(endogens; one seed leaf: grasses, bamboo, orchids, palms, and so forth)
    - 698.6 Dicotyledons  
(exogens; two seed leaves: beech, birch, chestnuts, elms, hickory, pecan, poplar, oaks, and so forth)
  - 699 Miscellany

## SECTION 8—MATHEMATICS, ASTRONOMY, ENGINEERING, AND SURVEYING

(Add geographic numbers for regions as needed)

- 701 Congresses
- 705 Tables
- 706 Nomenclature, abbreviations, and so forth
- 708 Technique
- 710 Mathematics
  - 711 Arithmetic
  - 712 Algebra
  - 713 Geometry
  - 714 Trigonometry
  - 715 Analytical geometry
  - 716 Calculus  
(includes functions, Fourier's series, integrals, infinite series, and mathematical analysis)
  - 718 Theory of error  
(includes least squares, probabilities, stochastic processes, and time-series)
  - 719 Other branches  
(numerical analysis, statistics, topology, theory of groups, vector analysis, and so forth)
- 730 Astronomy
  - 730.1 Astrophysics  
(the former 730.2, astrogeology was cancelled in 1980, see 737)
  - 730.3 Space chemistry
  - 730.4 Space biology
  - 730.6 Instruments
- 731 Theoretical astronomy and celestial mechanics
  - 731.1 Planetary theory
- 732 Navigational and nautical astronomy  
(includes other practical applications of astronomy)
- 733 Spherical astronomy
- 734 Descriptive astronomy
  - 734.1 Universe other than solar system
  - 734.2 Cosmic dust
  - 734.3 Asteroids
  - 734.4 Stars
  - 734.5 Sun
  - 734.6 Meteors (see 130 for meteorites)
  - 734.7 Comets
- 735 Planetary astronomy  
(includes solar system)
  - 735.1 Earth
  - 735.2 Mars
  - 735.3 Venus
  - 735.4 Other major planets: Jupiter, Mercury, Saturn
  - 735.8 Minor planets
- 736 Moon
  - 736.1 Lunar geology
  - 736.2 Lunar petrology
  - 736.3 Lunar mineralogy
- 737 Planetary geology, astrogeology (formerly 730.2 prior to 1980)
  - 737.1 Mercury
  - 737.2 Venus
  - 737.3 Mars
  - 737.4 Jupiter

- 737.5 Saturn
- 737.6 Uranus and Neptune
- 737.7 Pluto and minor planets
  - For Earth, see 203
  - For the moon, see 736.1 and 736.2
- 738 Cosmogony, nebular hypothesis
  - 738.1 Earth
  - 738.2 Mars
  - 738.3 Venus
  - 738.4 Other major planets: Jupiter, Mercury, Saturn
  - 738.8 Minor planets
- 739 Space sciences, space exploration, associated space technology, artificial satellites
  - 739.1 Congresses
  - 739.4 Earth satellites
    - (for example, ERTS, Landsat, Mapsat, Nimbus, and so forth)
  - 739.5 Satellite instrumentation
  - 739.7 Space shuttles
  - 739.8 Space stations
- 740 Geodesy
  - (the investigation of any scientific question regarding the shape and dimensions of the Earth)
  - 741 Theory and determination of Earth's figure
  - 742 Base measuring and apparatus
  - 743 Field work of triangulation
  - 744 Computation
  - 745 Formulae and applications
    - (the former 746, magnetic surveys, was canceled 1972)
  - 747 Longitude and latitude, map projections
  - 748 Global positioning system (GPS), satellite positioning systems
    - 748.1 Lunar geodesy
- 750 Surveying
  - (textbooks, manuals, and so forth; includes general topography)
  - 750.1 Congresses
  - 750.3 Encyclopedias
  - 751 Instruments
  - 752 Measurements of angles, heights, altitudes, leveling
  - 753 Topographical drawing (see 500 for topographic maps)
    - 753.1 Photogrammetry (general)
    - 753.2 Automated photogrammetry
    - 753.4 Instruments and equipment
    - 753.5 Aerial surveying
      - 753.55 Conferences
  - 753.6 Orthophotography and orthophotomapping
  - 753.7 Remote sensing
    - 753.71 Conferences
    - 753.74 Instruments
    - 753.75 Remote sensing of natural resources
    - 753.76 Remote sensing for hydrologic studies
    - 753.77 Remote sensing for geologic and mineralogic studies
    - 753.78 Remote sensing for land use studies
    - 753.79 Other remote sensing studies
  - 754 Topographical surveying by states and countries
  - 755 Boundary surveying
  - 756 Military, naval, land surveys
    - (for special purposes)

- 757 Drawing, lettering, illustration of books (general)
- 758 Coloring
- 759 Cartography
  - (includes map making and study and use of geological maps)
  - 759.1 Conferences
  - 759.3 Workbooks
  - 759.4 History of cartography
  - 759.5 Computerized mapping, automated cartography, digital cartography, spatial data handling
  - 759.6 Cartographic standards and manuals
- 760 Engineering
  - (general treatises and texts)
  - 761 Conferences
  - 762 Reports of utilities companies
  - 763 Contracts, specifications
  - 764 Designs, drawings
  - 765 Tables and calculations
  - 766 Materials of construction
    - (includes mechanics of construction materials and friction)
  - 767 Strength of materials
    - (includes structural engineering)
    - 767.5 Instruments for testing strength of materials
  - 767.8 Testing of materials
- 768 Soil mechanics
  - (includes soil engineering, rock mechanics, and slope stability; for deformations, see 270)
  - 768.1 Conferences
  - 768.2 Foundations
  - 768.3 Dams
  - 768.4 Other
    - (includes underground construction, compressed air storage, and so forth)
- 769 Structures and military construction
  - (includes military structures, buildings, masonry, bridges, air fields; see also 768 for soil engineering, and so forth)
- 770 Mechanical engineering and machinery
  - 770.3 Vehicles
  - 770.5 Machines
- 771 Power engineering
  - (includes description, design, and construction of systems, plants and equipment for generation of power (heat and electricity) from nonatomic fuels, solar rays, terrestrial heat, tides, and waves; see 785 for water-power generation; see 815.2 for nuclear power generation)
- 772 Transportation engineering, railroads
  - (see 774 for highway engineering)
- 773 Tunnels and tunneling
- 774 Highway engineering
  - (includes roads and pavements)
- 775 Bridge engineering
- 776 Pipelines and pipeline engineering
  - (see 467.7 for oil and gas pipelines)
- 777 Well drilling and boring
  - (see 490 for water wells)
- 778 Hydraulic engineering and machinery
  - (includes canals and channels)
- 779 Agricultural engineering
  - (use only for comprehensive multitopical and serial publications; see also 785, 786, 790, 940)

- 780 Hydrology  
(includes water supply of surface water, hydrography; for water supply of ground water, see 490)
- 780.01 Conferences
- 780.1 Water—juvenile literature
- 780.2 Hydrological instruments, measurements  
(for stream measurements, see 783)
- 781 Rainfall, runoff, snow surveys, stormwater management
- 782 Evaporation and seepage
- 783 Stream measurements, surveys, and so forth
- 784 Water resources development
  - 784.1 Water resources development congresses
- 785 Stream control and water power
- 786 Restoration of land, reclamation of land from oceans, lakes, and so forth
- 790 Water supply for agriculture, rural water supply, and irrigation
- 791 Supply and distribution of impounded waters  
(includes water storage, reservoirs, aqueducts, and dams; see 768.3 for soils engineering aspects of dams; see 490 for supply and distribution of ground water)
- 793 Water conservation; water for domestic, industrial, and military use  
(includes waterworks, pumping stations, water mains, storm sewers, and engineering aspects of water supply)
- 794 Purification of water supply  
(includes filtration, demineralization and desalinization; see 797 for water quality)
- 795 Water pollution  
(limited to water pollution since 1972; for general pollution, see 583)
  - 795.3 Radioactive waste disposal
  - 795.6 Thermal pollution of lakes, rivers, and so forth
- 796 Analysis of water
- 797 Water quality  
(includes composition of surface water, quality of water supplies, water pollution control, and water chemistry)
- 798 Water rights, legislation, and so forth
- 799 Sewerage and sanitation  
(includes public health aspects)
  - 799.3 Treatment and disposal
  - 799.5 Industrial (factory and trade) and municipal wastes and their disposal
  - 799.7 Sewerage utilization  
(includes water reuse)

## SECTION 9—PHYSICS AND CHEMISTRY

(Add geographic numbers for regions as needed)

- 801 Congresses
- 802 Society publications
- 803 General treatises and textbooks
- 805 Encyclopedias, tables
- 806 Nomenclature and classification
- 807 History
- 808 Technique, laboratories
- 809 Essays, lectures, and miscellany  
(includes works on the theory of time, excluding geologic time)
- 810 Physics
  - 810.3 General treatises and textbooks
  - 810.6 Mathematical physics
  - 811 Congresses
  - 814 Weights and measures  
(includes metric system)
  - 814.8 Specific gravity
- 815 Constituents of matter, their nature and properties  
(includes molecular, atomic nuclear, and particle physics)
  - 815.1 Congresses
  - 815.2 Nuclear engineering and atomic power  
(includes economic aspects, peaceful uses, and powerplants)
  - 815.3 Encyclopedias
  - 815.4 Quantum theory
  - 815.5 Radioactivity  
(see 838 for radiation)
  - 815.6 Solid state
- 817 Materials sciences  
(theoretical and experimental)
- 820 Mechanics, mass physics
  - 821 Solids
    - 821.5 Cratering, experimental  
(small scale)
    - 821.6 Explosion craters, contained explosives
    - 821.65 Nuclear cratering
  - 822 Liquids  
(includes fluid dynamics, hydrostatics, fluid mechanics, flow of fluids through a porous medium, permeability and porosity of porous media, viscosity, and so forth)
  - 822.3 Rheology  
(science dealing with the deformation and flow of matter)
  - 823 Gases and pneumatics
  - 825 Sound and acoustics, sound waves
  - 827 High pressure research
  - 828 Impact phenomena  
(includes physical studies of natural craters and their formation)
- 830 Heat
  - 831 Apparatus
  - 834 Thermodynamics  
(includes low temperature and high temperature research)
- 835 Light (includes light waves, optics, optical absorption, spectroscopy, and so forth)
  - 835.1 Congresses

- 835.7 Apparatus and instruments  
(includes lasers)
- 837 Photography
  - 837.1 Microphotography or photomicrography
  - 837.4 Holography (see 835 for theory)
  - 837.5 Audio visual technology
- 838 Radiation  
(includes radioisotopes, electromagnetic waves, particle emissions, X rays, and cosmic rays; see 815.5 for radioactivity)
- 840 Magnetism  
(for geomagnetism, see 296)
- 845 Electricity
  - 846 Theory
  - 847 Experiments
  - 848 Applications and apparatus  
(includes electrical engineering and electronics)
    - 848.5 Components, devices, instruments, and their applications  
(radio, radar, semiconductors)
- 849 Waves  
(includes vibrations and waves not specifically classified elsewhere; excludes sound waves, see 825; light waves, see 835; electromagnetic waves, X rays, and cosmic rays, see 838)
- 850 Chemistry
  - 850.1 Congresses
  - 850.3 General treatises and textbooks
  - 850.5 Encyclopedias, tables, yearbooks
  - 850.6 Nomenclature
  - 850.7 History
  - 850.8 Apparatus and laboratories
  - 850.9 Collections and miscellany
- 851 Physical and theoretical chemistry  
(includes chemical crystallography)
  - 852 Thermochemistry
  - 853 Atomic weights, atomic theory, laws of chemical combination, nature and properties of chemical elements
  - 854 Conditions and laws of chemical change  
(includes catalysis and reaction velocity)
  - 855 Theory of solution  
(includes colloids)
  - 856 Radiochemistry
- 860 Experimental chemistry
  - 863 Equilibria
  - 865 Electrochemistry
- 870 Inorganic chemistry
  - 871 Nonmetallic elements
  - 872 Metals, metallic elements, organometallic compounds
- 875 Organic chemistry  
(includes chemistry of hydrocarbons)
- 878 Biochemistry  
(includes bacterial chemistry)
- 880 Analytical chemistry
  - 881 Qualitative analysis  
(includes spectrum analysis and Mossbauer spectrometry)
  - 882 Microchemical analysis
  - 883 Quantitative analysis

- 884 Volumetric analysis  
(includes gasometric analysis)
- 885 Electrolytic and magnetochemical analysis
- 886 Other specific methods of analysis  
(includes spectrographic X ray, colorimetric, chromatographic analysis, gas chromatography, and so forth; for theory of spectroscopy, see 835)
- 887 Analysis of inorganic materials  
(includes cast-iron, cobalt, copper, metals, minerals, rare earth, rocks, soils, uranium, water, and so forth)
- 888 Analysis of organic materials  
(includes coal, fossil biomaterials, fuels, organophosphorus compounds, and so forth)
- 889 Synthesis
- 890 Chemical technology, chemical engineering
  - 890.1 Sorption: adsorption and absorption  
(includes sorbents)
  - 892 Agricultural chemistry, soil chemistry
  - 895 Alloys
  - 896 Metallography of steel  
(includes microscopic research)

## SECTION 10—BIOLOGY

(Add geographic numbers for regions as needed)

- 901 Congresses on life sciences in general  
(see also 921, 971)
- 902 Encyclopedias and handbooks
- 903 Natural history
  - 904 Popular and older works
- 905 Biology
  - 907 Bacteriology  
(microbiology)
  - 908 Technique
  - 909 Miscellany and collections
- 910 Anthropology, ethnology
- 913 Instinct
- 915 Evolution, origin of life, extinction of species
- 917 Physiology
- 918 Distribution of plants and animals
- 919 Ecological studies
  - 919.53 Marine ecology
  - 919.54 Ecology of landforms
  - 919.55 Freshwater ecology
  - 919.67 Human ecology
  - 919.92 Plant ecology
  - 919.93 Savanna and grassland ecology
  - 919.94 Soil ecology
  - 919.97 Animal ecology
- 920 Botany
  - 921 Congresses
  - 923 Textbooks and general treatises
  - 924 Elementary textbooks
  - 925 Catalogs
  - 926 Nomenclature and classification
  - 927 History
  - 928 Distribution of plants
  - 929 Essays and collections
  - 930 Cryptogams  
(spore bearing plants: ferns, mosses, algae, and fungi)
    - 931 Thallophytes  
(fungi and algae, including diatoms)
    - 932 Bryophytes  
(liverworts and mosses)
    - 933 Pteridophytes  
(ferns)
  - 935 Phanerogams  
(seed or flowering plants)
    - 936 Gymnosperms  
(evergreens)
    - 937 Angiosperms  
(flowering plants)
    - 938 Monocotyledons  
(endogens; one seed leaf: grasses, bamboo, orchids, palms, and so forth)

- 939 Dicotyledons  
(exogens; two seed leaves: beech, chestnuts, elms, hickory, pecan, poplar, oaks, and so forth)
- 940 Agriculture and horticulture
- 941 Soil science  
(includes soils, soil classification, soil micromorphology, soil physics, soil surveys, and soil structure; agricultural aspects of soils, humus, and loess)
  - 941.1 Soil congresses
- 944 Soil moisture
- 950 Forestry, reforestation, forest fires
- 970 Zoology
  - 971 Congresses
  - 973 Textbooks
  - 974 Elementary, popular, and older works
  - 975 Catalogs
  - 976 Nomenclature and classification
  - 977 History
  - 978 Distribution of animals
  - 979 Miscellany
  - 980 Invertebrata
    - 981 Protozoa  
(includes amoeba, foraminifera, paramecium, plankton, radiolaria, rhizopoda, and so forth)
    - 982 Coelenterata  
(includes sponges (Porifera), corals (Anthozoa), and hydra (Hydrozoa))
    - 983 Echinodermata  
(includes Pelmatozoa: feather stars (Crinoidea), cystoids (Cystoidea), blastoids (Blastoidea); Asterozoa: starfish (Asteroidea), brittle stars and basket stars (Ophiuroidea); Echinoidea: sea urchins (Echinoidea), sea cucumbers (Holothuroidea))
    - 984 Vermes  
(worms: flatworms (Platyhelminthes), roundworms (Nemathelminthes), and earth worms (Annelida))
    - 985 Molluscoidea  
(Bryozoa and Brachiopoda)
    - 986 Mollusca  
(includes clams, oysters, and so forth (Bivalvia (lamellibranchiata or pelecypoda); snails (Gasteropoda); octopus, squids, nautilus, and so forth (Cephalopoda); marine worms (Scaphopoda))
    - 987 Arthropoda  
(includes crayfish and lobsters (Crustacea); spiders and scorpions (Arachnida); centipedes and millipedes (Myriopoda); insects (Insecta))
    - 989 Tunicata (sea squirts)
  - 990 Vertebrata
    - 991 Pisces (fish)
    - 993 Amphibia  
(frogs, salamanders, and so forth)
    - 995 Reptilia  
(includes lizards, snakes, turtles, and dinosaurs: Ornithischia (herbivorous dinosaurs), Theropoda (carnivorous dinosaurs))
    - 997 Aves (birds)
    - 999 Mammalia

## SECTION 11—GEOGRAPHIC NUMBERS

### Introduction

Geographic numbers are identified by the parentheses that enclose them. When parenthetical numbers, (100)–(950), are the only element of a classification number, they represent the publications of the geological surveys of the world at the federal, state, and provincial levels. For example, (100) represents the Geological Survey of Canada; (238) represents the Geological Survey of Kentucky. Publications in this schedule include monographs and serials.

- (000) World
- (020) Space (reserved for map classification)

### CELESTIAL BODIES (025)–(037) (these numbers are reserved for map classification)

- (025) Moon
- (030) Jupiter
  - (030.1) Io
  - (030.2) Europa
  - (030.3) Ganymede
  - (030.4) Callisto
  - (030.5) Amalthea
  - (030.6) Ananke
  - (030.7) Carme
  - (030.8) Elara
  - (030.9) Himalia
  - (030.10) Leda
  - (030.11) Lysithea
  - (030.12) Pasiphae
  - (030.13) Sinope
- (031) Mars
  - (031.1) Deimos
  - (031.2) Phobos
- (032) Mercury
- (033) Neptune
  - (033.1) Nereid
  - (033.2) Triton
- (034) Pluto
  - (034.1) unnamed
- (035) Saturn
  - (035.1) Dione
  - (035.2) Enceladus
  - (035.30) Hyperion
  - (035.4) Iapetus
  - (035.5) Janus
  - (035.6) Mimas
  - (035.7) Phoebe
  - (035.8) Rhea
  - (035.9) Tethys
  - (035.10) Titan
- (036) Uranus
  - (036.1) Ariel
  - (036.2) Miranda
  - (036.3) Oberon
  - (036.4) Titania

- (036.5) Umbriel
- (037) Venus
- (040)–(043) Hemisphere numbers
  - (040) Northern Hemisphere
  - (041) Southern Hemisphere
  - (042) Western Hemisphere
  - (043) Eastern Hemisphere

(050) OCEANS AND SEAS OF THE WORLD

- (051) Atlantic Ocean
- (052) North Atlantic Ocean
- (053) Hudson Bay and Hudson Strait
- (054) Baffin Bay, Gulf of St. Lawrence, Davis Strait, Smith Sound, Kane Basin, Labrador Sea
- (055) Norwegian and Greenland Seas, Denmark Strait
- (056) North Sea, Skagerak
- (057) Baltic Sea
- (058) Celtic Sea
- (059) Mediterranean Sea and straits  
(includes Ligurian Sea, Tyrrhenian Sea, Adriatic Sea, and Ionian Sea)
- (060) Black Sea, Sea of Azov
- (062) Gulf of Mexico, Sargasso Sea
- (063) Caribbean Sea
- (065) South Atlantic Ocean
- (066) Scotia Sea
- (067) Great Lakes, St. Lawrence Seaway
- (068) Caspian Sea, Aral Sea
- (070) Indian Ocean
- (071) Arabian Sea
- (072) Red Sea, Gulf of Aden
- (073) Persian Gulf, Gulf of Oman
- (074) Bay of Bengal
- (080) Pacific Ocean
- (081) North Pacific Ocean, Philippine Sea
- (082) Bering Sea
- (083) Eastern Pacific, American coasts; Gulf of Alaska; Gulf of California
- (084) South Pacific, Tasman Sea, Coral Sea
- (085) Indonesian and Micronesian seas  
(Timor, Arafura, Banda, Flores, Java, Celebes, Sulu, and others)
- (086) South China Sea
- (087) East China Sea, Yellow Sea, Formosa Strait
- (088) Sea of Japan, Sea of Okhotsk
- (090) Arctic Ocean, Lincoln Sea
- (091) Beaufort Sea, Northwest passages
- (092) Barents Sea, White Sea
- (093) Kara, Laptev, East Siberian, and Chukchi Seas
- (096) Antarctic Sea  
(Ross, Amundsen, Bellingshausen, Scotia, and Weddell Seas)

(099) NORTH AMERICA

- (100) Canada
  - (110) New Brunswick
  - (120) Nova Scotia: Prince Edward Island, Cape Breton Island
  - (130) Newfoundland

- (135) Labrador  
(reserved for maps)
- (137) St. Pierre et Miquelon  
(Islands belonging to France)
- (140) Quebec and Ungava
- (150) Ontario
- (160) Manitoba
- (165) Saskatchewan
- (170) Alberta
- (180) British Columbia
- (182) Yukon
- (183) Northwest Territories  
(as a whole)
  - (184) Mackenzie
  - (186) Keewatin
  - (188) Franklin
- (190) Arctic America  
(Canadian)
- (200) United States
  - (208) Atlantic Coast
  - (209) Gulf Coast
  - (210) New England
    - (211) Maine
    - (212) New Hampshire
    - (213) Vermont
    - (214) Massachusetts
    - (215) Rhode Island
    - (216) Connecticut
  - (220) Middle Atlantic States (Appalachia)
    - (221) New York
    - (222) New Jersey
    - (223) Pennsylvania
    - (224) Delaware
    - (225) Maryland
    - (226) District of Columbia
    - (227) Virginia
    - (228) West Virginia
  - (230) Southern States, Eastern Section
    - (231) North Carolina
    - (232) South Carolina
    - (233) Georgia
    - (234) Florida
    - (235) Alabama
    - (236) Mississippi
    - (237) Louisiana
    - (238) Kentucky
    - (239) Tennessee
  - (240) Southern States, Western Section
    - (241) Arkansas
    - (243) Indian Territory
    - ~~(244)~~ Oklahoma
    - (245) Texas
  - (250) Central States, Eastern Section
    - (251) Ohio

- (252) Indiana
- (253) Illinois
- (254) Wisconsin
- (255) Michigan
- (260) Central States, Western Section
  - (261) Minnesota
  - (262) Iowa
  - (263) Missouri
  - (264) North Dakota
  - (265) South Dakota
  - (266) Nebraska
  - (267) Kansas
- (270) Southwestern States
  - (271) Colorado
  - (272) New Mexico
  - (273) Utah
  - (274) Arizona
  - (275) Nevada
  - (276) California
- (280) Northwestern States
  - (281) Montana
  - (282) Wyoming  
(includes Yellowstone National Park)
  - (283) Idaho
  - (284) Washington
  - (285) Oregon
  - (286) Alaska  
(includes Aleutian Islands)
  - (289) Pacific Coast  
Hawaii see (950)
- (300) Mexico
  - (310) Free Zone and Northern States
    - Tamaulipas
    - Nuevo Leon
    - Coahuila
    - Chihuahua
    - Sonora
    - Sinaloa
    - Durango
  - (320) Lower California and Islands  
(Baja California: Baja Sur, Baja norte)
  - (330) Central Pacific States
    - Jalisco
    - Colima
    - Michoacan
    - Nayarit
  - (340) Interior States
    - Zacatecas
    - San Luis Potosi
    - Aguascalientes
    - Guanajuato
    - Queretaro
    - Hidalgo
    - Puebla



- (430) Chile
- (440) Bolivia
- (450) Peru
- (460) Colombia
- (465) Ecuador
- (470) Venezuela
- (480) Guyana
- (481) French Guiana
- (482) Surinam  
(Dutch Guiana)
- (490) Uruguay
- (492) Paraguay
- (497) Falkland Islands  
(includes South Georgia and South Sandwich Islands)

(500) EUROPE

- (510) Great Britain
  - (511) Islands off northern Great Britain  
(includes Orkney Islands, Fair Island, Shetland (Zetland) Islands, Hebrides (includes Outer Hebrides: Lewis and Harris, North Uist, South Uist, and Barra, St. Kilda, and Flannan Islands; Inner Hebrides: Skye, Mull, Islay Islands, and other lesser islands and islets)
  - (512) Scotland
  - (515) Ireland (Eire)
  - (516) Northern Ireland
  - (520) England and Wales  
(520.5) Colonial geological surveys
  - (521) Islands of the Irish Sea: Isle of Man and so forth; Islands of St. Georges Channel: Lundy Island, Isles of Scilly, and so forth; Channel Islands: Alderney, Guernsey, Jersey, and Sark
- (530) Germany, German Federal Republic
  - (530.1) Prussia
  - (530.11) Lower Saxony, Niedersachsen
  - (530.111) Hamburg
  - (530.112) Bremen
  - (530.12) Bavaria (Bayern)
  - (530.13) Rhineland-Palatinate (Rheinland-Pflaz)
  - (530.14) Baden-Wurtemberg
  - (530.15) North Rhine-Westphalia (Nordrhein-Westfalen)
  - (530.16) Hesse (Hessen)
  - (530.17) Schleswig-Holstein
  - (530.18) Saarland
  - (530.19) Berlin, West

Discontinued numbers for Germany:  
 \*(530.2) Bavaria, \*(530.3) Saxony, \*(530.35) Thuringia,  
 \*(530.4) Wurtemberg, \*(530.5) Baden, \*(530.6) Hesse,  
 \*(530.7) Mecklenburg, \*(530.75) Schleswig-Holstein,  
 \*(530.8) Brunswick, \*(530.85) Hanover-Celle, \*(530.9)  
 Alsace-Lorraine (before Nov. 1918)
- (531) German Democratic Republic (East Germany) 1949–91  
(includes the following districts: Cottbus, Dresden, East Berlin, Erfurt, Frankfurt, Gera, Halle, Karl-Marx-Stadt, Leipzig, Magdeburg, Neubrandenburg, Potsdam, Rostock, Schwerin, and Suhl)
- (532) Czechoslovakia
  - (532.3) Slovakia
- (533) Austria
  - (533.1) Galicia

- (534) Hungary
  - (534.1) Croatia-Slovenia before 1914
- (535) Switzerland
- (536) Liechtenstein
- (540) France
  - (includes Corsica (Corse))
  - (540.7) Alsace-Lorraine (after Nov. 1918)
- (548) Monaco
- (550) Italy
  - (includes the Mediterranean islands of Sardinia and the Tuscan Archipelago: Montecristo, Giglio, Pianosa, Capraia, Elba, and so forth; Lipari Islands: Stromboli, Vulcano, Salina, and so forth; Sicily; and Pantelleria)
- (551) San Marino
- (560) Spain
  - (includes Gibraltar and Balearic Islands)
- (565) Andorra
- (569) Portugal
- (570) Soviet Union
  - (includes Russia, Russian S.F.S.R., U.S.S.R., European Russia, European R.S.F.S.R., Orenburg, Chelyabinsk, and Sverdlovsk oblasts)
  - (571) Ukraine, Moldavia
  - (572) The Caucasus
    - (includes Armenia, Azerbaijan, and Georgia)
  - (573) Estonia
  - (574) Latvia
  - (575) Lithuania and Kaliningrad oblast
  - (576) Baltic region
  - (577) Byelorussia
    - (White Russia)
- (578) Poland
- (579) Finland
- (580) Scandinavia
  - (581) Norway
  - (583) Sweden
  - (585) Denmark
    - (585.5) Faeroe Islands
    - (587) Iceland
- (590) Other European countries
  - (591) Netherlands
  - (592) Luxembourg
  - (593) Belgium
  - (594) Romania
  - (595) Bulgaria
  - (596) Yugoslavia
    - (includes Serbia and Montenegro (Crna Gora) and Islands of the Adriatic Sea off the coast of Yugoslavia)
    - (596.1) Croatia
    - (596.3) Slovenia
    - (596.4) Bosnia-Herzegovina
    - (596.5) Macedonia
  - (596.6) Albania
  - (597) Greece
    - (includes Ionian Islands and Crete)
  - Turkey (see 680)
  - (599) Malta (for Cyprus, see 684)

(600) ASIA

- (610) China
  - (610.1) Fukien
  - (610.12) Heilungkiang
  - (610.2) Honan
  - (610.21) Hopeh
  - (610.3) Hunan
  - (610.31) Hupeh
  - (610.32) Kansu
  - (610.4) Kiangsi
  - (610.41) Kiangsu
  - (610.42) Kirin
  - (610.5) Kwangtung
  - (610.51) Macau (Macao) and Hong Kong
  - (610.6) Kweichow
  - (610.61) Liaoning
  - (610.62) Shansi
  - (610.63) Shantung
  - (610.64) Shensi
  - (610.7) Sinkiang-Uighur
  - (610.8) Szechwan
  - (610.81) Tsinghai
  - (610.82) Yunnan
  - (610.83) Anhwe
  - (610.84) Chekiang
  - (610.9) Autonomous regions
    - (610.91) Inner Mongolia
    - (610.92) Kwangsi Chuang
    - (610.93) Ningsia hui
- (611) Taiwan (Formosa)
- (615) Nepal, Bhutan, central Asia and area northwest of Tibet (Dainelli, and so forth), Sikkim (before 1975, class as independent state; after 1975, class as province of India at (641.71))
- (616) Tibet
- (618) Manchuria  
(After 1949, roughly identical with the Chinese provinces of Hielungkiang, Kirwin, and Liaoning)
- (619) Mongolian People's Republic  
(Mongolia, formerly Outer Mongolia, a Chinese province)
- (620) Japan
- (625) Korea
- (629) Southeastern Asia
  - (630) Indo-China
  - (631) Vietnam
  - (633) Laos
  - (634) Cambodia
  - (635) Thailand  
(formerly Siam)
  - (637) Malay States  
(after 1963, see Malaysia 911)
  - (638) Chagos Archipelago
- (640) India
  - (640.2) Assam
  - (640.3) Gujarat
  - (640.4) Bihar
  - (640.5) Harayana

- (640.51) Himachal Pradesh
- (640.6) Rajasthan
- (640.7) Kerala  
(formerly Travancore)
- (640.8) Uttar Pradesh
- (641.3) Manipur
- (641.4) Meghalaya
- (641.41) Maharashtra
- (641.5) Nagaland
- (641.6) Orissa
- (641.7) Punjab
- (641.71) Sikkim  
(before 1975, class as independent state at (615))
- (641.8) Tripura
- (642) Tamil Nadu  
(formerly Madras)
- (643) Rewa  
(now in Madhya Pradesh)
- (643.2) West Bengal
- (643.3) Jammu and Kashmir
- (644) Madhya Pradesh
- (645) Karnataka  
(formerly Mysore)
- (646) Andhra Pradesh
- (646.2) Union Territories (includes Andaman and Nicobar, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli, Delhi; Goa, Daman, and Diu; and Lakshadweep, Mizoram, and Pondicherry)
- (647) Burma (after 1948)
- (648) Pakistan  
(formerly West Pakistan; includes Punjab, Sind, North-West Frontier Province, and most of Baluchistan; see (660) for Iranian Baluchistan)
- (648.5) Bangladesh  
(formerly East Pakistan)
- (649) Sri Lanka  
(formerly Ceylon)
- (650) Middle East and Near East
  - (655) Afghanistan
  - (660) Iran  
(formerly Persia; includes part of Baluchistan; see (648) for Pakistani Baluchistan)
  - (664) Arabian Peninsula
    - (665) Iraq  
(formerly Mesopotamia)
    - (670) Saudi Arabia
    - (671) Yemen  
(Yemen Arab Republic; Yemen (San'a))
    - (672) Oman  
(formerly Muscat and Oman)
    - (673) People's Democratic Republic of Yemen  
(formerly Aden, Socotra, South Yemen, South Arabia)
    - (674) Kuwait
    - (675) Bahrain, Qatar, and United Arab Emirates  
(formerly Trucial States; includes Abu Dhabi, Ajman, Dubai, Fujairah, Ras Al-Khaimah, Sharjah, and Umm al-Qaiwain)
- (680) Turkey

- (681) Israel  
(includes Palestine)
- (682) Syria
- (683) Lebanon
- (684) Cyprus
- (685) Jordan
- (690) Siberia
  - (690.2) Western Siberia  
(includes Kurgan, Tyumen, Omsk, Tomsk, Novosibirsk, Kemerovo oblasts; Altay Kray, including the Sayan Mountains; see (570) for Orenburg, Chelyabinsk, and Sverdlovsk oblasts)
  - (690.3) Eastern Siberia  
(Krasnoyarsk kray, Yakutsk, Buryat, Tuvinian A.S.S.R., Irkutsk and Chita oblasts, Transbaikalia, and Taymyr Peninsula)
- (691) Soviet Far East  
(includes Magadan, Kamchatka, Amur oblasts, Khabarovsk and Primorski kray)
- (693) Sakhalin oblast (Maritime Territory) and Kurile Islands  
(693.5) Soviet Central Asia
- (694) Tadzhik S.S.R.  
(Tajikistan)
- (695) Kazakh S.S.R.  
(Kazakstan)
- (695.3) Turkmen S.S.R.  
(Turkmenistan)
- (695.6) Kirghiz S.S.R.  
(Kirghizistan)
- (696) Uzbek S.S.R.  
(Uzbekistan)
- (697) Eastern Siberia  
(discontinued 1975, see (690.3))
- (699) Eurasia

(700) AFRICA

- (710) North Africa
  - (710.1) Libya  
(former provinces of Tripolitania, Cyrenaica, and Fezzan; includes Barka (Barca))
  - (720) Egypt  
(includes the Nile country, Sinai, and Suez Canal)  
(720.5) Sudan
  - (730) Algeria
  - (735) Tunisia
  - (740) Morocco  
(includes Spanish Morocco, Tangier, and Ifni)
  - (741) Spanish Sahara
  - (741.5) Equatorial Guinea  
(Republic)
  - (742) Guinea-Bissau  
(formerly Portuguese Guinea)
  - (743) Mali
  - (744) Mauritania
  - (745) Guinea Republic
  - (746) Ivory Coast
  - (747) Burkina Faso  
(formerly Upper Volta)

- (747.5) Benin  
(formerly Dahomey)
- (748) Togo
- (749) Azores, Madeira, Canary Islands, Cape Verde Islands
- (749.5) South Atlantic Islands: Ascension, St. Helena, Tristan da Cunha
- (750) West Africa, Western Sahara, and Central Africa
  - (750.1) Niger Republic
  - (751) Cameroun
  - (751.5) St. Thomas and Principe
  - (752) Nigeria
  - (753) Ghana  
(formerly Gold Coast)
  - (754) Liberia
  - (755) Sierra Leone
  - (756) Central African Republic  
(formerly French West Africa)
  - (756.2) Senegal
  - (756.4) Gabon
  - (757) Chad
  - (758) French Equatorial Africa  
(discontinued 1972)
  - (759) Gambia
  - (760) Zimbabwe  
(formerly Rhodesia, Southern Rhodesia; includes Matebeland: Northern Matebeland and Southern Matebeland)
  - (761) Zambia  
(formerly Northern Rhodesia)
  - (763) People's Republic of the Congo  
(Congo (Brazzaville))
  - (764) Zaire  
(formerly Belgian Congo)
  - (768) Angola  
(formerly Portuguese West Africa)
- (769) Eastern Africa  
(region)
  - (770) Burundi
  - (771) Rwanda
  - (772) Ethiopia  
(formerly Abyssinia)
  - (772.5) Djibouti, Afars, and Issas
  - (773) Somalia  
(Somaliland)
  - (774) Tanzania  
(formerly Tanganyika)
  - (775) Kenya  
(formerly British East Africa)
  - (776) Uganda
  - (777) Malawi  
(formerly Nyasaland)
  - (778) Mozambique
  - (779) Zanzibar  
(part of Tanzania, 1964)
- (780) Southern Africa  
(region; includes Matebele Kingdom)

- (780.4) Botswana  
(formerly Bechuanaland)
- (781) Namibia  
(formerly Southwest Africa; includes Damaraland and Namaqualand (Namaland, Great Namaqualand, or Great Namaland))
- (782) Cape of Good Hope  
(formerly Cape Colony)
- (783) Orange Free State  
(formerly Orange River Colony)
- (784) South African Republic
- (785) Transvaal
- (786) Natal  
(includes Zululand)
- (786.5) Lesotho  
(formerly Basutoland)
- (787) Republic of South Africa  
(formerly Union of South Africa; includes Little Namaland or Little Namaqualand)
- (788) Swaziland
- (790) Malagasy Republic and Madagascar
- (791) Reunion Island
- (792) Mauritius
- (795) Comoro, Seychelles, Cocos-Keeling, and Maldivé Islands, and unspecified Indian Ocean Islands

(800)–(890) AUSTRALIA, TASMANIA, AND NEW ZEALAND

- (800) Australia
  - (810) Queensland
  - (820) New South Wales
  - (830) Victoria
  - (840) South Australia
  - (845) Northern Territory
  - (860) Western Australia
  - (880) Tasmania
- (890) New Zealand

(900) OCEANIA AND THE MALAY ARCHIPELAGO

- (910) Indonesia  
(includes Sumatra, Java, Madura Sulawesi (Celebes), Kalimantan (South, East, West, and Central Borneo), Nusa Tenggara (Lesser Sundas), Maluku (Moluccas), West Irian (Western half of New Guinea), and Dutch East Indies)
- (911) Malaysia  
(includes Malayan states, Sabah (North Borneo), Sarawak, and Brunei)
- (912) Republic of Singapore
- (920) Republic of the Philippines
- (930) Melanesia  
(includes Papua New Guinea and Bismarck Archipelago (New Britain, New Ireland, New Hanover, and Admiralty Islands))
- (933) New Caledonia and the Loyalty Islands
- (935) Vanuatu  
(formerly New Hebrides)
- (937) Solomon Islands
- (940) Micronesia  
(includes Caroline, Ladrone, Marianas, Marshall, Gilbert, and Palau Islands; Nauru; and Trust Territory of the Pacific Islands)
- (950) Hawaii

- (960) Polynesia  
(includes Tubuai (Austral), Cook, Ellice, Marquesas, Society, Tokelau, Tuamotu, Phoenix, and Line Islands; Samoa; Tonga (Friendly Islands); Midway; Iles des Horn; Johnston Island; Easter, Palmyra, Howard, and Baker Islands; and Fiji)
- (970) Guam; isolated islands  
(includes Bonin, Marcus, Galapagos Islands, and so forth)
- (980) Arctic regions  
(includes Baffin Land, Greenland, Svalbard, and so forth)
- (990) Antarctic regions
- (995) Polar regions

**SECTION 12—A. EARTH SCIENCE SERIALS  
G(100)—G(950)**

This schedule contains the serial publications of earth science societies, associations, earth science departments of universities, and geologic-oriented publisher's series.

Typical call numbers consist of a classification number (G added to a geographic number (see Section 11)) and a shelf list number (a capital letter for the issuing body, a two or three digit number from L.C. shelf list tables (see p. 8), and a title mark for the title). For detailed instructions on the construction of G schedule call numbers, see Section 3. Monographic publications by these institutions are classed in the subject schedule according to the appropriate subject (see Sections 1–10).

**SECTION 12—B. GENERAL SCIENCE SERIALS  
S(100)—S(950)**

The S schedule contains the serials of general science societies and associations; general publications of universities and science departments, as well as other associations; and general science publishers' series. For a detailed list of subjects covered in this schedule, see p. 5.

Typical call numbers contain elements similar to those found in the G schedule (above). For detailed instructions on the construction of S schedule call numbers, see p. 5–6. All monographic publications of these institutions are classed in the subject numbers (see Sections 1–10).

## **SECTION 13—GOVERNMENT DOCUMENTS**

### **P(100)–P(950)**

This schedule contains serial publications of federal, state, and provincial agencies throughout the world, with the exception of the publications of mineral and mining bureaus, which are classed in the mineral resources schedule (see Section 5, class 402), and the publications of geological surveys (see Section 11). The monographic works of these agencies are classed in the subject numbers (see Sections 1–10).

From 1976 to 1989, most U.S. Government monographic documents were classed in P(200). At the present time, the P schedule is restricted to the classification of government serial publications. All monographic government documents are classed according to subject in classes 001–999, except for publications by the geological surveys and mining bureaus.

Typical call numbers consist of a classification number (P added to a geographic number (see Section 11)) and a shelf list number (a capital letter for the government agency and a three digit number taken from C.A. Cutter's three digit author's table). These are combined with a title mark to form complete call numbers. See "Introduction" (p. 5) for complete instructions on the construction of P schedule call numbers.

## INDEX TO CLASSIFICATION SYSTEM

\* Denotes classification numbers used in earlier editions of the system and not currently used.

- Abbreviations 051.2  
Abrasive materials 447  
Abu Dhabi (675)  
Abyssinia, see Ethiopia (772)  
Acid deposition 583  
Acid rain 583  
Acoustics 825  
Actinide series 439.4  
Actinium 439.4  
Actinolite 446.1  
Aden (673)  
Administration 065.1  
Administrative management 065.1  
Aerial photography 753.5  
Aerial surveying 753.5  
Aerolites, see Meteorites 130  
Aeromagnetism 296  
Afars and Issas (772.5)  
Afghanistan (655)  
Africa (700)  
\*Africa, French Equatorial (758)  
Africa, French West, see Central African Republic (756)  
Africa, North (710)  
Africa, West Central, see West and Central Africa (750)  
Agate 485  
Age determination 315  
Aggregate 479  
Agricultural chemistry 892  
Agricultural engineering 779  
Agricultural water-supply 790  
Agriculture 940  
Agronomy (soil science) 941  
Air pollution 514  
Alabama (235)  
Alaska (286)  
Albania (596.6)  
Alberta (170)  
Aleutian Islands (286)  
Algae 931 (botany), 697.1 (paleobotany)  
Algebra 712  
Algeria (730)  
Alkali earth metals 439.2  
Alkali metals 439.21  
Alloys 895  
Alluvium 546  
Almanacs 055  
Alsace-Lorraine \*(530.9) and (540.7)  
Altitudes 752  
Alum 444  
Alum stone 444  
Aluminum 438  
Alunite 444  
Amber 469  
American Samoa (960)  
Americium 439.4  
Amethyst 489  
Ammonites 659  
Amosite 446.1  
Amphibia 993 (zoology), 673 (paleozoology)  
Amphiboles 446.1  
Amphineura 657  
Analytical chemistry 880  
Analytical geometry 715  
Andhra Pradesh (646)  
Andorra (565)  
Angiosperms 937 (botany), 698.4 (paleobotany)  
Anglo-Egyptian Sudan, see Sudan (720.5)  
Angola (768)  
Anguilla (396)  
Animal ecology 919.97  
Animals and plants, distribution of 918  
Animals, distribution of 978  
Annelida 984 (zoology), 645 (paleozoology)  
Antarctic regions (990)  
Antarctic seas (096)  
Antarctica (990)  
Anthophyllite 446.1  
Anthozoa 982 (zoology), 625 (paleozoology)  
Anthracite 462  
Anthropology 910  
Antigorite 446.2  
Antigua (396)  
Antilles, Netherlands (399)  
Antimonates 126.4  
Antimonides 122  
Antimony 437  
Apatite 443  
Appalachian region (220)  
Aqueducts 791  
Aquifers 490  
Arabia (670)  
Arabian Sea (071)  
Arachnida 987 (zoology), 665 (paleozoology)  
Archean 320.1 (stratigraphy), 681.1 (stratigraphic paleontology)  
Archeology 679.91  
Archives 047  
Arctic America (Canadian) (190)  
Arctic regions (980)  
Arctic Ocean (090)  
Argentina (420)  
Argon 439.7

Arithmetic 711  
 Arizona (274)  
 Arkansas (241)  
 Armenia (572), Turkish Armenia (680)  
 Arsenates 126.4  
 Arsenic 439.5  
 Arsenides 122  
 Artesian wells 492  
 Arthropoda 987 (zoology), 660 (paleozoology)  
 Artificial intelligence 039.7  
 Artificial satellites 739 (see also 753.7, remote sensing)  
 Asbestos 446  
 Ascension Island (749.5)  
 Asia (600)  
 Asphalt 465  
 Assaying 429.8  
 Astatine 439.6  
 Asteroidea 983 (zoology), 636 (paleozoology)  
 Asteroids 734.3  
 Asterozoa 983 (zoology), 634 (paleozoology)  
 Astrogeology 737  
 Astronomical instruments 730.6  
 Astronomy 730 (general), 731 (theoretical), 732  
     (practical), 733 (spherical), 734 (descriptive), 735  
     (planetary)  
 Astrophysics 730.1  
 Atlantic Coast (U.S.) (208)  
 Atlantic Ocean (051)  
 Atlases 308 (geological), 508 (geographical)  
 Atmospheric physics 511  
 Atmospheric agencies 211  
 Atomic power 815.2  
 Atomic theory 853  
 Atomic weights 853  
 Attapulgitite 441  
 Austral Islands (960)  
 Australia (800)  
 Austria (533)  
 Author bibliography 043  
 Automated cartography 759.5  
 Automated photogrammetry 753.2  
 Automation, libraries 046.7  
 Avalanches 245  
 Aves 997 (zoology), 677 (paleozoology)  
 Azerbaidzhan, see Azerbaijan S.S.R. (572)  
 Azerbaijan S.S.R. (572)  
 Azores (749)  
 Azov, Sea of (060)

Bacterial chemistry 878  
 Bacteriology 907  
 \*Baden (530.5)  
 Baden-Wurttemberg (530.14)  
 Baffin Land (980)  
 Bahamas (395)

Bahrain (675)  
 Baltic region (576)  
 Baltic Sea (057)  
 Baluchistan (648) (Pakistani), (660) (Iranian)  
 Bangladesh (648.5)  
 Barbados (397.1)  
 Barbuda (396)  
 Barca (710)  
 Barium 439.2  
 Barites 448.1  
 Barrier Islands 521  
 Basalt 170  
 Base measuring 742  
 Basutoland, see Lesotho (786.5)  
 Bathymetry 536  
 Batrachia, see Amphibia 993 (zoology), 673  
     (paleozoology)  
 Bauxite 441  
 Bays 558  
 Bavaria (530.12), \*(530.2)  
 Beaches 521  
 Bechuanaland, see Botswana (780.4)  
 Belgian Congo, see Zaire (764)  
 Belgium (593)  
 Belize (382)  
 Bengal, West (643.2)  
 Benin (747.5)  
 Bering Sea (082)  
 Bermuda (398)  
 Beryllium 439.2  
 Bhutan (615)  
 Bibliography 041 (national), 042 (subjects), 043 (author)  
 Bibliography of geological maps 308.4  
 Bihar (640.4)  
 Biochemistry 878  
 Biogeochemistry 298.3  
 Biography 080  
 Biology 905  
 Biomineralization 298.3  
 Biotite 446.3  
 Birds 997 (zoology), 677 (paleozoology)  
 Bismuth 439  
 Bituminous 463  
 Bivalvia 986 (zoology), 655 (paleozoology)  
 Black Sea (060)  
 Blastoidea 983 (zoology), 633 (paleozoology)  
 Bolivia (440)  
 Borates 126.5  
 Boring 777  
 Borneo, Central (910)  
 Borneo, North (911)  
 Boron 439.5  
 Botany 920  
 Botswana (780.4)  
 Boundary surveying 755

Brachiopoda 985 (zoology), 652 (paleozoology)  
 Brazil (410)  
 Bremen (530.112)  
 Brick 441.1  
 Bridges, construction 769  
 Bridges, engineering 775  
 British Columbia (180)  
 British Honduras, see Belize (382)  
 British Isles (510)  
 British Virgin Islands (394.2)  
 Bromides 124  
 Bromine 439.6  
 Brunei (911)  
 \*Brunswick (530.8)  
 Bryophytes 932 (botany), 697.2 (paleobotany)  
 Bryozoa 985 (zoology), 651 (paleozoology)  
 Building stones 470  
 Buildings, construction 769  
 Buildings, effect of earthquakes on 240.2  
 Bulgaria (595)  
 Burkina Faso (Upper Volta) (747)  
 Burma (647)  
 Burundi (770)  
 Byelorussian S.S.R. (577)

Cadmium 439  
 Calcium 439.2  
 Calculus 716  
 California (276)  
 California, Lower (Mexico) (320)  
 Californium 439.4  
 Cambodia (634)  
 Cambrian 332 (stratigraphy), 683 (stratigraphic paleontology)  
 Cameroon (751)  
 Campeche (360)  
 Canada (100)  
 Canals 778  
 Canary Islands (749)  
 Cape Breton Island (120)  
 Cape Colony, see Cape of Good Hope (782)  
 Cape of Good Hope (782)  
 Cape Verde Islands (749)  
 Carbon and compounds 460  
 Carbonates 126.1 (mineralogy), 454 (mineral resources)  
 Carboniferous 336 (stratigraphy), 687 (stratigraphic paleontology)  
 Caribbean Sea (063)  
 Caroline Islands (940)  
 Cartography 759  
 Cartography, automated 759.5  
 Caspian Sea (068)  
 Catalog of research grants 048  
 Cataloging (libraries) 045.6  
 Catalog of maps 508.4 (geographical), 308.4 (geological)

Cataracts 553  
 Caucasia (570)  
 Caustobioliths 464.1  
 Caustoliths 464.1  
 Caustophytoliths 464.1  
 Caustozooliths 464.1  
 Caves 547  
 Cayman Islands (392.2)  
 CD-ROM 038.6  
 Celebes (910)  
 Cement 442  
 Cenozoic 350 (stratigraphy), 689 (stratigraphic paleontology)  
 Central African Republic (756)  
 Central America (380)  
 Cephalopoda 986 (zoology), 659 (paleozoology)  
 Ceramic materials 441  
 Ceramics 441.1  
 Cerium 439.3  
 Cesium 439.21  
 Ceylon, see Sri Lanka (649)  
 Chad (757)  
 Chagos Archipelago (638)  
 Chalk 454  
 Channels 778  
 Chemical analysis 880 (general), 155 (rocks), 495 (underground water), 796 (surface water), 887 (inorganic materials), 888 (organic materials)  
 Chemical engineering 890  
 Chemical mineralogy 119  
 Chemistry 850  
 Chemistry bibliography 042.85  
 Chemistry, colloid 855  
 Chile (430)  
 China (610)  
 Chlorides 124  
 Chlorine 439.6  
 Chromates 126.6  
 Chromatographic analysis 886  
 Chromium 439  
 Chrysolite 446.2  
 City planning 065.3  
 Clay 441  
 Clay minerals 441  
 Clay products 441.1  
 Clayware 441.1  
 Climate 512  
 Climatic changes 512  
 Climatology 512  
 Cloud physics 511  
 Cnidaria, see Coelenterata 982 (zoology), 620 (paleozoology)  
 Coal 461  
 Coal congresses 461.1  
 Coal desulfurization 461.3

Coal gasification 461.4  
 Coal liquefaction 461.4  
 Coal production (environmental aspects) 461.3  
 Coal technology 461.4  
 Coast, Atlantic (208)  
 Coast, Gulf (209)  
 Coastal engineering 521  
 Coastal zone conferences 521.1  
 Coastal zone management 521  
 Coasts 521  
 Cobalt 436  
 Coelenterata 982 (zoology), 620 (paleozoology)  
 Cold region construction 256.2  
 Collections, general 090  
 Colloid chemistry 855  
 Colombia (460)  
 Colorado (271)  
 Coloring 758  
 Columbium (also called niobium) 439  
 Comets 734.7  
 Composition (writing) 053  
 Computerized mapping 759.5  
 Computers 036  
 Conchology 986 (zoology), 654 (paleozoology)  
 Concretions 272  
 Conglomerates 453  
 Congo, Brazzaville (763)  
 Congresses, geological 201  
 Congresses, scientific 031 (see also under various subjects)  
 Connecticut (216)  
 Conodonts 611  
 Conservation of natural resources 585  
 Construction and cold region conditions 256.2  
 Construction materials 479, 766  
 Contamination of ground water 494  
 Continental drift 311  
 Continental margins 523  
 Continental shelf 523  
 Continents 520  
 Contracts (engineering) 763  
 Cook Islands (960)  
 Copper 434 (metal), 429.4 (metallurgy)  
 Copyright 059  
 Coral reefs 525  
 Corals 982 (zoology), 625 (paleozoology)  
 Corundum 447  
 Corsica (540)  
 Cosmic dust 734.2  
 Cosmic physics 295.3  
 Cosmogony, cosmology 738  
 Costa Rica (386)  
 Cratering 821.5–821.65  
 Craters 828  
 Cretaceous 343 (stratigraphy), 688.7 (stratigraphic paleontology)  
 Crete (597)  
 Crinoidea 983 (zoology), 632 (paleozoology)  
 Crna Gora (596)  
 Croatia (596.1)  
 Crocidolite 446.1  
 Crustacea 987 (zoology), 662 (paleozoology)  
 Crushed stone 479  
 Cryptogams 930 (botany), 697 (paleobotany)  
 Crystalline rocks 185  
 Crystallography 110  
 Crystallography, mathematical 111  
 Crystallization 112  
 Crystals 112  
 Cuba (391)  
 Curium 439.4  
 Currents, ocean 531  
 Cyanite 453  
 Cyprus (684)  
 Cyrenaica (710)  
 Cystoidea 983 (zoology), 632 (paleozoology)  
 Czechoslovakia (532)  
 Dahomey (747.5)  
 Damara Land (781)  
 Dams 768.3, 791 (water storage)  
 Data and image processing 036.5  
 Deep sea drilling 537  
 Deep sea drilling project 536  
 Deformations 270  
 Delaware (224)  
 Deltas 552  
 Demographic studies and environment 585.4  
 Denmark (585)  
 Desalination of water 794  
 Description and travel 590  
 Descriptive mineralogy 120  
 Descriptors (cataloging) 045.6  
 Deserts 548  
 Desertification 548  
 Designs (engineering) 764  
 Devonian 335 (stratigraphy), 686 (stratigraphic paleontology)  
 Diamonds 481  
 Diatomaceous earth 459  
 Diatomite 459  
 Diatoms 931 (botany), 697.1 (paleobotany)  
 Dicotyledons 939 (botany), 698.6 (paleobotany)  
 Dictionaries 050, 051  
 Dictionaries, technical 051.1  
 Digital cartography 759.5  
 Dikes 411  
 Dinosaurs 675  
 Directories 056 (membership lists), 057 (organizations)

Disaster relief 249  
 Distribution of animals 978  
 Distribution of plants 928  
 Distribution of plants and animals 918  
 District of Columbia (226)  
 Djibouti (772.5)  
 Dolomite 180 (petrology), 454 (mineral resources)  
 Domes 270  
 Dominica (397)  
 Dominican Republic (393.5)  
 Drainage 555  
 Drawing and lettering 757  
 Drawings (engineering) 764  
 Droughts 516  
 Drumlins 251  
 Dunes 549  
 Dutch Antilles (399)  
 Dutch East Indies (910)  
 Dutch Guiana (Surinam) (482)  
 Dynamic geology 210  
 Dysprosium 439.3

Earth 310 (origin), 312 (crust), 313 (internal structure),  
 735.1 (planet), 738.1 (cosmogony), 741 (figure)  
 Earth, rare 120 (mineralogy), 439.3 (mineral resources),  
 887 (chemistry)  
 Earth movements 210 (geodynamics), 240 (earthquakes),  
 248 (subsidence), 270 (deformations), 311 (plate  
 tectonics)  
 Earth resistance 296  
 Earth sciences 203.2 (multidisciplinary works)  
 Earth temperature 218 (geodynamics), 230 (geothermics),  
 512 (climatology)  
 Earth tides 295.3  
 Earthenware 441.1  
 Earthquake engineering 240.2  
 Earthquake prediction 240.4  
 Earthquakes 240  
 Earth's crust 312  
 Earth's mantle 312  
 East (Near East) (650)  
 East Germany (531)  
 Echinodermata 983 (zoology), 630 (paleozoology)  
 Echinoidea 983 (zoology), 638 (paleozoology)  
 Echinozoa 637  
 Ecology 919  
 Ecology of soils 919.94  
 Eclogite 190  
 Economic geography 504  
 Economic geology 404  
 Economics 065  
 Ecuador (465)  
 Education 005 (general), 065.5 (social and economic  
 aspects)  
 Egypt (720)

Einsteinium 439.4  
 Eire (515)  
 El Salvador (384)  
 Electric prospecting 426.4  
 Electricity 845  
 Electrochemistry 865  
 Electrolytic analysis 885  
 Ellice Islands (960)  
 Emeralds 483.5  
 Emery 447  
 Encyclopedias 052  
 Endogens 938 (botany), 698.5 (paleobotany)  
 Energy resources 580 (general), 585.3 (environmental  
 aspects)  
 Engineering 760 (general), 778 (hydraulic)  
 Engineering geology 203.3  
 Engineering instruments 767.5  
 England (520)  
 English grammars 053  
 Environment 582  
 Environmental aspects of population 585.4  
 Environmental geology 203.6  
 Environmental impact statements 585.3  
 Environmental law 582  
 Environmental policy 582  
 Environmental pollution 583  
 Environmental protection 582  
 Epeirogeny 293  
 Equatorial Guinea (Republic) (741.5)  
 Equilibria 863  
 Erbium 439.3  
 Erosion 213 (general), 254 (glacial)  
 Eskers 252  
 Essays, miscellaneous 090  
 Estonia (573)  
 Estuaries 557  
 Ethics 075  
 Ethiopia (772)  
 Ethnology 910, 679.9  
 Eurasia (699)  
 Europe (500)  
 Europium 439.3  
 Evaporation 782  
 Evaporites 180  
 Evolution 915  
 Exogens 939 (botany), 698.6 (paleobotany)  
 Expanded perlite 479  
 Expanded shale 479  
 Expanded vermiculite 479  
 Expeditions 502  
 Experimental investigations 219 (geology), 140  
 (mineralogy)  
 Experimental mineralogy 140  
 Expert systems (computer science) 039.7  
 Exploring expeditions 502

Explosions, underground 203.4  
 Exposition publications (general) 002  
 Extinction of species 915  
 Extraterrestrial forces 212  
  
 Factory and trade wastes 799.5  
 Falkland Islands (497)  
 Faulting 276  
 Feldspar (economic product) 453  
 Fermium 439.4  
 Ferromanganese nodules 537.6  
 Fertilizers 443  
 Fezzan (710)  
 Fieldwork (geologic technique) 208  
 Fiji Islands (960)  
 Filtration of water supply 794  
 Finland (579)  
 Fiords 523  
 Fishery law and legislation 537.2  
 Fjords  
 Flood  
 Flor 52  
 Florida (54)  
 Flotation (metallurgy) 429  
 Fluid dynamics 822  
 Fluid inclusions 298.4  
 Fluid mechanics 822  
 Fluorides 124  
 Fluorine 439.6  
 Fluorite 452  
 Fluorspar 452  
 Foam slag (construction materials) 479  
 Folding 276  
 Footprints (fossil) 610  
 Foraminifera 981 (zoology), 617 (paleozoology)  
 Forest fires 950  
 Forestry 950  
 Formation of ore deposits 410  
 Formosa (after 1945) (611)  
 Fossils (general) 603  
 France (540)  
 Francium 439.21  
 Franklin (188)  
 French Guiana (481)  
 French Territory of the Afars and Issas (772.5)  
 French West Indies (397)  
 Freshwater ecology 919.55  
 Friendly Islands (960)  
 Frozen ground 256.2  
 Fuels, manufactured 468  
 Fukien (610.1)  
 Fuller's earth 453  
  
 Gabon (756.4)  
 Gadolinium 439.3  
  
 Galicia (533.1)  
 Gallium 439  
 Gambia (759)  
 Garnet 447 (abrasive materials), 484 (precious stones)  
 Gas chromatography 886  
 Gases 823  
 Gasification of coal 461.4  
 Gasometric analysis 884  
 Gastropoda 986 (zoology), 658 (paleozoology)  
 Gazetteers 506  
 Gems 480, 480.5 (artistic aspects)  
 Geochemical prospecting 426.2  
 Geochemistry 298  
 Geochronology 315  
 Geodesy 740  
 Geodynamics (geology) 210  
 Geographical names 506  
 Geographical congresses 501  
 Geography, descriptive 504  
 Geography, economic 504  
 Geography, physical 503  
 Geological bibliography 042.2  
 Geological congresses 201  
 Geological guidebooks 209.1 (monographic)  
 Geological history 360  
 Geological map lists 308.4  
 Geological technique 208  
 Geological time 315  
 Geological nomenclature 206  
 Geology 203 (general), 203.3 (engineering), 210  
     (dynamic, geodynamic, neotectonic, physical,  
     tectonic), 203.5 (military), 260 (structural), 303  
     (stratigraphic), 404 (economic)  
 Geomagnetism 296  
 Geometry 713  
 Geometry, analytical 715  
 Geomorphological effects of earthquakes 240.3  
 Geomorphology 503  
 Geophysical observatories 240.8  
 Geophysical profiling 295.2  
 Geophysical prospecting 426.4  
 Geophysical well logging 426  
 Geophysics 295  
 Georgia (U.S.) (233)  
 Georgia (U.S.S.R.) (572)  
 Geothermal engineering 230  
 Geothermal resources 230  
 German Democratic Republic (East Germany) (531)  
 German Federal Republic (West Germany) (530)  
 Germanium 439  
 Germany (530)  
 Geysers 230  
 Ghana (formerly Gold Coast) (753)  
 Gibraltar (560)  
 Gilbert Islands (940)

Glacial geology 353  
 Glacial paleontology 689.6  
 Glaciers 250, 559  
 Glaciology 250  
 Glass 453  
 Global change 512  
 Gneiss 190  
 Gold 431  
 Gold Coast, see Ghana (753)  
 Government of mines 421  
 Government publications (general) 001  
 Grabens 270  
 Grammar and language manuals 053  
 Granite 474, 170  
 Grants, catalogs of 048  
 Graphics 067  
 Graphite 466  
 Graptolites 626  
 Gravel 479  
 Gravity 297.5  
 Gravity anomalies 297.5  
 Gravity investigations 297.5  
 Gravity prospecting 426.4  
 Great Britain (510)  
 Great Plains (200) or see specific U.S. States  
 Great Lakes (067)  
 Greece (597)  
 Greenhouse effect 511 (atmospheric physics), 512 (heat budget), 514 (air pollution)  
 Greenland (980)  
 Ground water 490  
 Ground-water flow 490  
 Guam (970)  
 Guadeloupe (397)  
 Guatemala (381)  
 Guiana, Dutch (482)  
 Guiana, French (481)  
 Guidebooks 209.1 (monographic)  
 Guinea, Equatorial (Republic) (741.5)  
 Guinea Republic (745)  
 Guinea-Bissau (742)  
 Gujarat (640.3)  
 Gulf Coast (U.S.) (209)  
 Gymnosperms 936 (botany), 698.1 (paleobotany)  
 Gypsum 444  
  
 Hafnium 439  
 Haiti (393)  
 Halogens 439.6  
 Haloids 124  
 Hamburg (530.111)  
 \*Hanover-Celle (530.85)  
 Harayana (640.5)  
 Hawaii (950)  
 Hazardous materials 583  
  
 Hazardous substances 583  
 Hazardous wastes 799.5  
 Health 065.4  
 Heat 830  
 Heat budget 512  
 Helium 439.7 (element), 467.8 (petroleum aspects)  
 Herzegovina (596.4)  
 Hesse (530.16), \*(530.6)  
 High Plains (200) or see specific U.S. State  
 High pressure research 827  
 Highway engineering 774  
 Hills 544  
 Himachal Pradesh (640.51)  
 Historical geology 303  
 History 070 (general), 207 (history of geology), 407 (mining or mineral history), and so forth  
 Holland (591)  
 Holmium 439.3  
 Holography 837.4  
 Holothuroidea 983 (zoology), 639 (paleozoology)  
 Honan (610.2)  
 Honduras (383)  
 Hong Kong (610.51)  
 Horticulture 940  
 Hot springs 230  
 Human ecology 919.67  
 Humus 941 (soils), 298.3 (geochemical aspects)  
 Hunan (610.3)  
 Hungary (534)  
 Hydraulic engineering 778  
 Hydraulic measurements 780.2  
 Hydraulic mining 427  
 Hydraulic structures 778  
 Hydrocarbons 128 (mineralogy), 460 (mineral resources), 875 (organic chemistry)  
 Hydrogen 439.5  
 Hydrogeology 490  
 Hydrography 780  
 Hydrological instruments 780.2  
 Hydrology 490 (underground water), 780 (surface water)  
 Hydrometer 780.2  
 Hydrostatics 822  
 Hydrothermal deposits 220 (volcanic aspects), 230 (geothermal resources), 218 (earth temperature), 410 (ore deposits aspects)  
 Hydrozoa 982 (zoology), 626 (paleozoology)  
  
 Ice structure 256  
 Icebergs 535  
 Iceland (587)  
 Ichnofossil 610  
 Idaho (283)  
 Ifni (740)  
 Igneous agencies 218  
 Igneous metamorphism 283

Igneous rocks 170  
 Illinois (253)  
 Illite 441  
 Illustration of books 757  
 Image data processing 036.5  
 Impact phenomena 828  
 Index maps 308.4  
 Indexes 044  
 India (640)  
 Indian Ocean (070)  
 \*Indian Territory (243)  
 Indiana (252)  
 Indium 439  
 Indo-China (630)  
 Indonesia (910)  
 Industrial minerals 440–459.9  
 Inert gases 439.7  
 Information services 040  
 Information systems 040  
 Injection wells 467.4 (petroleum), 795.3 (radioactive waste disposal), 799.5 (waste disposal)  
 Inland waters 550  
 Inorganic chemistry 870  
 Inorganic geochemistry 298.2  
 Insects 987 (zoology), 667 (paleozoology)  
 Instinct 913  
 Institutions, 020, 032  
 Instrumentation, congresses 035.1  
 Instruments 035 (science), 767.5 (engineering), 780.2 (hydrology)  
 Intrusions 280  
 Invertebrata 980 (zoology), 614.2 (paleozoology)  
 Invertebrate fossils 614.2  
 Iodides 124  
 Iodine 439.6  
 Ionian Islands (597)  
 Iowa (262)  
 Iran (660)  
 Iraq (665)  
 Ireland (515)  
 Ireland, Northern (516)  
 Iridium 439.1  
 Iron 433 (metal), 429.3 (metallurgy)  
 Irrigation 790  
 Islands 525 (physical geography)  
 Islands (geographic numbers) (749)–(749.5) and (791)–(795) (African), (910)–(911) (East Indies), (597) (Greek), (912)–(970) (Pacific), (390) (West Indies)  
 Isolated Pacific Islands (970)  
 Isostasy 297  
 Isotope geology 203.7  
 Israel (681)  
 Italy (550)  
 Ivory Coast (746)

Jade 486  
 Jamaica (392)  
 Jammu (643.3)  
 Japan (620)  
 Java (910)  
 Jet 469  
 Jointing 270  
 Joints 270  
 Jordan (685)  
 Jupiter 737.4 (planet), (030) (geographic number for map cataloging)  
 Jura 342 (stratigraphy), 688.4 (stratigraphic paleontology)  
 Jurassic 342 (stratigraphy), 688.4 (stratigraphic paleontology)

Kaliningrad Oblast (575)  
 Kansas (267)  
 Kaolin 441  
 Karnataka (645)  
 Karst 547  
 Kashmir (643.3)  
 Kazakh S.S.R. (695)  
 Kazakhstan, see Kazakh S.S.R. (695)  
 Keewatin (186)  
 Kentucky (238)  
 Kenya (775)  
 Kerala (640.7)  
 Kiangsi (610.4)  
 Kimberlite 170  
 Kirghiz S.S.R. (695.6)  
 Kirghizistan see Kirghiz S.S.R. (695.6)  
 Korea (North and South) (625)  
 Krypton 439.7  
 Kunzite 489  
 Kuril Islands (R.S.F.S.R.) (693)  
 Kuwait (674)  
 Kwangtung (610.5)  
 Kweichow (610.6)  
 Kyanite 453

Labor force 065.2 (general), 030.5 (scientific)  
 Laboratories 808  
 Labrador (135)  
 Laccoliths 280  
 Ladrone Islands (940)  
 Lagoons 558  
 Lakes 554  
 Lakes, glacial 255  
 Lamellibranchiata 986 (zoology), 655 (paleozoology)  
 Landforms 540  
 Land use planning 585.5  
 Landform ecology 919.54  
 Landsat 739.4  
 Landsat maps 500.1  
 Landslides 245

Lanthanide series 439.3  
 Lanthanum 439.3  
 Laos (633)  
 Lasers 835.7  
 Laterite 441  
 Latitude 747  
 Latvia (574)  
 Lawrencium 439.4  
 Lead 435  
 Lebanon (683)  
 Least squares 718  
 Leeward Islands (396)  
 Lepidolite 446.3  
 Lesotho (786.5)  
 Leveling 752  
 Liberia (754)  
 Libraries 046  
 Library automation 046.7  
 Library science 045  
 Libya (710)  
 Light 835  
 Lightweight aggregate 479  
 Lignite 463.5  
 Lime 454  
 Limestone 180 (sedimentary rock), 454 (carbonate minerals), 471 (building stone)  
 Limnology 554  
 Liquids 822  
 Liquefaction of coal 461.4  
 Liquefaction of soil 240  
 Lithium 439.21  
 Lithosphere 267  
 Lithuania (575)  
 Lodes 411  
 Loess 518, 941  
 Logic 054  
 Longitude 747  
 Louisiana (237)  
 Lower Saxony (530.11)  
 Loyalty Islands (933)  
 Lunar geodesy 748.1  
 Lunar geology 736.1  
 Lunar mineralogy 736.3  
 Lunar petrology 736.2  
 Lutetium (also Lutecium) 439.3  
 Luxembourg (592)

Maars 229  
 Macau (610.51)  
 Macedonia (596.5)  
 Machinery 770  
 Machines 770.5  
 Mackenzie (184)  
 Madagascar (790)  
 Madeira Islands (749)

Madhya Pradesh (644)  
 Madras, see Tamil Nadu (642)  
 Magmas 281  
 Magmatism 281  
 Magnesium 439.2  
 Magnetic surveys 296  
 Magnetism 840  
 Magnetite 433  
 Magnetotelluric prospecting 426.4  
 Maine (211)  
 Mainframes 036.25  
 Malawi (777)  
 \*Malay States (637)  
 \*Malaya (Federation) (637)  
 Malaysia (911)  
 Maldives (795)  
 Mali (743)  
 Malta (599)  
 Mammalia 999 (zoology), 679 (paleozoology)  
 Man (fossil) 679.9  
 Management 065.1  
 Manchuria (618)  
 Manganese 433, 537.6  
 Manipur (641.3)  
 Manitoba (160)  
 Manpower 030.5 (scientific), 065.2 (general)  
 Manufactured fuels 468  
 Manuscripts 095  
 Map making 759  
 Maps (atlases) 308 (geological), 508 (geographical)  
     Bibliographies 308.4 (geological), 508.4 (geographical)  
     Indexes 308.4 (geological), 508.4 (geographical)  
     Lists 308.4 (geological), 508.4 (geographical)  
 Marble 471  
 Margarite 446.3  
 Maharashtra (641.41)  
 Marianas Islands (940)  
 Marine ecology 919.53  
 Marine engineering 539  
 Marine geophysics 538  
 Marine pollution 537.5  
 Marine resources 537  
 Marine sediments 536  
 Marine structures 539  
 Marl 454  
 Marquesas Islands (960)  
 Mars 735.2 (planet), 737.3 (planetary geology), 738.2 (cosmogony), (031) (geographic number for map classification)  
 Marshall Islands (940)  
 Marshes 556  
 Marshes, tidal 557  
 Maryland (225)  
 Masonry 769  
 Massachusetts (214)

Mass physics 820  
 Materials science 817  
 Mathematical geology 208.2  
 Mathematical physics 810.6  
 Mathematical statistics 718  
 Mathematical tables 705  
 Mathematics 710  
 Mauritania (744)  
 Mauritius (792)  
 Measures 814  
 Mechanics 820  
 \*Mecklenburg (530.7)  
 Meghalaya (641.4)  
 Melanesia (930)  
 Membership lists 056 (directories)  
 Mercury 432 (metal)  
 Mercury 735.4 (planet), 737.1 (planetary geology), 738.4 (cosmogony)  
 Mesozoic 340, (paleontology) 688  
 Metallogeny 410  
 Metallography 872  
 Metals (chemistry) 8  
 Metals in the natural state 430  
 Metallurgy 429  
 Metamorphic rocks 190  
 Metamorphism 283  
 Metasomatic rocks 190  
 Metasomatism 283  
 Metasomatite 190  
 Meteorites 130  
 Meteorology 510  
 Meteors 734.6  
 Methane 460  
 Metric system 814  
 Mexico (300)  
 Mica 446.3  
 Micaceous minerals 446.3  
 Michigan (255)  
 Microbiology 907  
 Microcomputers 036.23  
 Micronesia (940)  
 Microphotography 837.1  
 Micropaleontology 603.1  
 Microscopy 035  
 Middle East (650)  
 Military engineering 769  
 Military geology 203.5  
 Mine prospectuses 422  
 Mine safety 425  
 Mine subsidences 425.2  
 Mine surveying 424  
 Mineral industry 403  
 Mineral paints 448  
 Mineral resources 403  
 Mineral waters 493, \*491  
 Mineralogical chemistry 119  
 Mineralogy 100–140  
 Mineralogy, chemical 119  
 Mineralogy, descriptive 120  
 Mineralogy, determinative 115  
 Mineralogy, optical 110  
 Minerals in rocks 160  
 Mines and mining 420  
 Minicomputers 036.24  
 Mining bureaus 402  
 Mining congresses 401  
 Mining engineering 425  
 Mining law 421  
 Mining methods 425  
 Minnesota (261)  
 Minor planets 735.8 (planetary astronomy), 737.7 (planetary geology), 738.8 (cosmogony)  
 Miquelon Island (137)  
 Miscellaneous (sketches, clippings, and so forth) 009  
 Miscellany (general) 090  
 Mississippi (236)  
 Missouri (263)  
 Moldavia (571)  
 Molecular physics 815  
 Mollusca 986 (zoology), 654 (paleozoology)  
 Molluscoidea 985 (zoology), 650 (paleozoology)  
 Moluccas (910)  
 Molybdates 126.7  
 Molybdenum 439  
 Monaco (548)  
 Monazite 443  
 Mongolia (619)  
 Monocotyledons 938 (botany), 698.5 (paleobotany)  
 Montana (281)  
 Montenegro (596)  
 Moors 556  
 Moraines 253  
 Morocco (740)  
 Mossbauer effect 881  
 Mounds 544  
 Mountain making 293  
 Mountains 541  
 Mozambique (778)  
 Mud logging 467.4  
 Muscat and Oman (672)  
 Muscovite 446.3  
 Museum publications 020  
 Museums 025  
 Myriopoda 987 (zoology), 666 (paleozoology)  
 Mysore (645)  
 Nagaland (641.5)  
 Namibia (781)  
 Natal (786)  
 Natural disasters 249

Natural gas 467  
 Natural history 903  
 Natural resources 580  
 Nauru (940)  
 Navigator Islands, see Samoan Islands (960)  
 Near East (650)  
 Nebraska (266)  
 Nebular hypothesis 738  
 Necks 270  
 Neodymium 439.3  
 Neotectonics (geology) 210  
 Near East (650)  
 Nepal (615)  
 Neptunium 439.4  
 Netherlands, The (591)  
 Netherlands Antilles (399)  
 Nevada (275)  
 New Brunswick (110)  
 New Caledonia (933)  
 New England (210)  
 New Guinea (930)  
 New Hampshire (212)  
 New Hebrides, see Vanuatu (935)  
 New Jersey (222)  
 New Mexico (272)  
 New South Wales (820)  
 New York (221)  
 New Zealand (890)  
 Newfoundland (130)  
 Nicaragua (385)  
 Nickel 436  
 Niger Republic (750.1)  
 Nigeria (752)  
 Nile country (720)  
 Niobates 126.3  
 Niobium 439  
 Nitrates 126.4 (mineralogy), 443 (mineral resources)  
 Nomenclature, 206 (geological), 606 (paleontological),  
 976 (zoological)  
 Nonmetallic elements 871 (chemistry), 440–459.9  
 (nonmetallic minerals), 441.1 (products)  
 North Africa (710)  
 North America (099)  
 North Borneo (911)  
 North Carolina (231)  
 North Dakota (264)  
 North Korea, see Korea (625)  
 North Pacific Ocean (081)  
 North Rhine-Westphalia (530.15)  
 North Sea (056)  
 Northeastern Siberia (690.3)  
 Northwest Territories (Canada) (183)  
 Norway (581)  
 Nova Scotia (120)  
 Nubium sandstone 180  
 Nuclear cratering 821.65  
 Nuclear engineering 815.2  
 Nuclear geology 203.7  
 Nuclear geophysics 295.5  
 Nuclear physics 815  
 Nuclear prospecting 426.4  
 Nuclear waste repositories 795.3  
 Numerical analysis 719  
 Observatories 020  
 Ocean-atmosphere interaction 511  
 Ocean bottom 536  
 Ocean currents 531  
 Ocean mining 537  
 Oceania (900)  
 French (960)  
 Oceanographic instrumentation 530.02  
 Oceanography 530  
 Oceans 530 (topic), (050) (geographic number)  
 Ochre 448  
 Offshore technology 539  
 Office management 065.1  
 Official publications (general) 001  
 Offshore technology 539  
 Ohio (251)  
 Oil fuels 467  
 Oil shales 467  
 Oil industry 467.7  
 Oil well logging 467.4  
 Oklahoma (244)  
 Oman (672)  
 Ontario (150)  
 Onyx 472  
 Opals 484  
 Ophiuroidea 983 (zoology), 635 (paleozoology)  
 Optical absorption 835  
 Optical mineralogy 110  
 Optics 835  
 Orange Free State (783)  
 Orange River Colony, see Orange Free State (783)  
 Ordovician 333 (stratigraphy), 684 (stratigraphic  
 paleontology)  
 Ore deposits 410  
 Ore dressing 429  
 Oregon (285)  
 Organic agencies 216  
 Organic chemistry 875  
 Organic geochemistry 298.3  
 Organometallic compounds 872  
 Origin of life 915  
 Orissa (641.6)  
 Ornamental stones 470  
 Ornithischia 995 (zoology), 675 (paleozoology)  
 Orogeny 293  
 Oscillation 291

Osmium 439.1  
 Ostracoda 662  
 Oxides 125  
 Oxygen 439.5  
 Oxygen salts 126

Pacific area (900)  
 Pacific Coast (U.S.) (289)  
 Pacific Ocean (080)  
 Pacific Ocean, North (081)  
 Paints, mineral 448  
 Pakistan (648)  
 Palau Islands (940)  
 Paleobiology 613  
 Paleobotany 690  
 Paleoclimatology 370  
 Paleoecology 612  
 Paleogeography 360  
 Paleogeophysics 314  
 Paleohydrology 371  
 Paleolithic period 679.9  
 Paleomagnetism 314  
 Paleontology (general works) 603  
 Paleontology, stratigraphic 680  
 Paleopedology 180.3  
 Paleozoic 330 (stratigraphy), 682 (stratigraphic paleontology)  
 Paleozoology 614  
 Palestine (681)  
 Palladium 439.1  
 Palynology 696  
 Panama (387)  
 Panama Canal (387)  
 Papua (930)  
 Papua New Guinea (930)  
 Paragonite 446.3  
 Paraguay (492)  
 Paramorphism 135  
 Parks 585.7  
 Particle physics 815  
 Patagonia (429)  
 Pearls 488  
 Peat 464  
 Pelecypoda 986 (zoology), 655 (paleozoology)  
 Pelew, see Palau (940)  
 Pelmatozoa 983 (zoology), 631 (paleozoology)  
 Pennsylvania (223)  
 Periglacial phenomena 256  
 Periodicals 010  
 Periodite 170  
 Permafrost 256.1  
 Permian 337 (stratigraphy), 687.5 (stratigraphic paleontology)  
 Persia, see Iran (660)

Personnel 065.1  
 Peru (450)  
 Petrofabric analysis 165  
 Petroleum 467 (general), 467.3 (chemistry), 467.1 (congresses), 467.4 (engineering), 467.5 (laws, legislation), 467.7 (industry), 467.4 (refineries), 467.4 (technology)  
 Petroleum geology 467.4  
 Petroleum leases 467.7  
 Petroleum pipelines 467.7  
 Petroleum prospecting 467.4  
 Petroleum well logging 467.4  
 Petrology (general works) 150.3  
 Petrology, structural 165  
 Poretectonics 165  
 Phanerogams 935 (botany), 698 (paleobotany)  
 Philippine Sea (081)  
 Philippines (920)  
 Philosophy 054, 075  
 Phlogopite 446.3  
 Phoenix Island (960)  
 Phosphates 126.4 (mineralogy), 443 (mineral resources)  
 Phosphorus 439.5  
 Photogrammetry 753.5  
 Photographs 008  
 Photography 837, aerial photography 753.5  
 Photomicrography 837.1  
 Physical geology 210  
 Physical properties of crystals 113  
 Physical properties of rocks 153  
 Physics 810  
 Physics, mathematical 810.6  
 Physiography 503, 540  
 Physiology 917  
 Pigments 448  
 Pipeline engineering 776  
 Pipelines 776 (general), 467.7 (oil and gas pipelines)  
 Pisces 991 (zoology), 671 (paleozoology)  
 Placer deposits 414  
 Plains 543 (landforms)  
 Planetary astronomy 735  
 Planetary geology 737  
 Planetology 735  
 Planets 735 (planetary astronomy), 737 (planetary geology), 738 (cosmogony)  
 Plankton 981  
 Plant ecology 919.92  
 Plants, distribution of 918  
 Plasma, space 295.3  
 Plateaus (landforms) 542  
 Plate tectonics 311  
 Platinum 439.1

Platinum metals 439.1  
 Pleistocene 353 (stratigraphy), 689.6 (stratigraphic paleontology)  
 Pluto 737.7 (planet), (034) geographical classification of map  
 Plutonium 439.4  
 Pneumatics 823  
 Poland (578)  
 Polar regions (995)  
 Pollution 514 (air), 537.5 (marine), 583 (environmental), 795 (water)  
 Pollution control, water 797  
 Polynesia (960)  
 Population studies 065.3  
 Porcelain 441.1  
 Porifera 982 (zoology), 621 (paleozoology)  
 Portugal (569)  
 Portuguese Guinea (742)  
 Pot clay 441  
 Pot earth 441  
 Potash 443  
 Potassium 439.21  
 Potter's clay 441  
 Potter's earth 4  
 Pottery 441.1  
 Power engineering 771  
     (see also 785 (stream control), 815.2 (nuclear engineering))  
 Power resources 580 (general), 585.3 (environmental aspects)  
 Prairies (landforms) 543  
 Praseodymium 439.3  
 Precambrian 320 (stratigraphy), 681 (stratigraphic paleontology)  
 Precious stones 480  
 Pressure research 827  
 Prince Edward Island (120)  
 Probabilities, theory of 718  
 Problematica (paleontology) 611  
 Profiles (ocean) 536, profiling (seismic) 295.2, profiling (geophysical) 295.2  
 Promethium 439.3  
 Prospecting 426  
 Protactinium 439.4  
 Proterozoic 320.2 (stratigraphy), 681.2 (stratigraphic paleontology)  
 Protozoa 981 (zoology), 615 (paleozoology)  
 Prussia (530.1)  
 Pseudomorphs 135  
 Psychology 075  
 Pteridophytes 933 (botany), 697.3 (paleobotany)  
 Puerto Rico (394)  
 Pumice 170 (igneous rocks), 447 (abrasive materials), 479 (construction materials)  
 Punched card systems 040  
 Punjab (648)  
 Pyrite 445  
 Qater (675)  
 Qualitative analysis 881  
 Quantitative analysis 883  
 Quantum theory 815.4  
 Quartz 453  
 Quartzite 473  
 Quaternary 352 (stratigraphy), 689.5 (stratigraphic paleontology)  
 Quebec (140)  
 Queensland (810)  
 Quicksilver 432  
 Radar 848.5  
 Radiation 838  
 Radio 848.5  
 Radiochemistry 856  
 Radioactive prospecting 426.4  
 Radioactive waste disposal 795.3  
 Radioactive dating 315  
 Radioactivity 815.5  
 Radiocarbon dating 315  
 Radioisotopes 838  
 Radiolaria 981 (zoology), 618 (paleozoology)  
 Radiolarian earth 459  
 Radiometric ages, see Geochronology 315  
 Radium 439.2  
 Radon 514 (air pollution), 439.7 (inert gases)  
 Railroad engineering 772  
 Rain, acid 583  
 Rainfall 781  
 Rajasthan (640.6)  
 Rapids 55  
 Rare earth metals 439.3  
 Recent (Holocene) 354 (stratigraphy), 689.7 (stratigraphic paleontology)  
 Reclamation of land from the sea 786  
 Reclamation of land from strip mining 585.5  
 Recreation areas 585.7  
 Red Sea (072)  
 Reforestation 950  
 Refractory materials 441  
 Regional planning 065.3  
 Remote sensing 753.7 (general), 753.75 (natural resources), 511 (earth temperature)  
 Reptilia 995 (zoology), 675 (paleozoology)  
 Republic of South Africa (787)  
 Research projects, catalogs of 048  
 Reservoirs 791 (water supply), 521 (coastal engineering)  
 Resource conservation 585.3  
 Restoration of land 786  
 Reunion Island (791)  
 Rewa (643)

Rhenium 439  
 Rheology 822.3  
 Rhetoric 053  
 Rhineland-Palatinate (530.13)  
 Rhizopoda 981 (zoology), 616 (paleozoology)  
 Rhode Island (215)  
 Rhodesia, see Zimbabwe (760)  
 Rhodium 439.1  
 Rifts (geology) 276  
 Rivers 552  
 Road engineering 774  
 Road materials 479  
 Rock analysis 155  
 Rock bursts 425  
 Rock structure 260  
 Rock mechanics 768  
 Rockforming minerals, 412  
 Rockhounding 104  
 Rocks, carbonate 180  
 Rocks, collection and preservation 104  
 Rocks, Physical properties of 153  
 Rockslides 245  
 Romania (594)  
 Roscoelite 446.3  
 Rubidium 439.21  
 Rubies 483  
 Rumania (594)  
 Runoff 781  
 Rural water supply 790  
 Russia, see Soviet Union (570)  
 Russia, Asiatic (690)  
 Russia R.S.F.S.R (570)  
 Russian S.F.S.R. (570)  
 Ruthenium 439.1  
 Rwanda (771)

Saar or Saarland (530.18)  
 Sahara, Western (750)  
 St. Christopher-Nevis (396)  
 St. Helena Island (749.5)  
 St. Kitts-Nevis, see St. Christopher-Nevis (396)  
 St. Lucia (397)  
 St. Pierre et Miquelon (137)  
 St. Vincent (397)  
 Sakhalin (693)  
 Salt 444  
 Samarium 439.3  
 Samoan Islands (960)  
 San Marino (551)  
 Salvador, El (384)  
 Sand 453 (silicates), 479 (aggregates)  
 Sand dunes 549  
 Sandstone 473  
 Sanitation 799  
 Santo Domingo, see Dominican Republic (393.5)

Sapphires 482  
 Sardinia (550)  
 Saskatchewan (165)  
 Satellites 739 (artificial), 739.4 (Earth), 739.5  
 (instrumentation)  
 Saudi Arabia (670)  
 Savanna ecology 919.93  
 Savannas 543  
 Saxony, Lower (530.11)  
 Scandinavia (580)  
 Scandium 439  
 Scaphopoda 986 (zoology), 656 (paleozoology)  
 Schleswig-Holstein (530.17)  
 Science (general) 030  
 Scientific congresses 031 (see also specific subjects)  
 Scientific institutions 032  
 Scientific instruments 035  
 Scotland (512)  
 Seawater, desalination of 794  
 Sedimentary rocks 180  
 Sedimentation 213  
 Seepage 782  
 Seismic profiling 295.2  
 Seismic prospecting 426.3  
 Seismic reflection method 426.3  
 Seismic refraction method 426.3  
 Seismology 240  
 Seismometry 240.8  
 Selenides 122  
 Selenium 439.5  
 Semiconductors 848.5  
 Senegal (756.2)  
 Serbia (596)  
 Serials, indexes to 044  
 Serpentinite 446.2  
 Sewerage 799  
 Seychelles (795)  
 Shore protection 521  
 Shorelines 521  
 Shores 521  
 Siam, see Thailand (635)  
 Siberia (690)  
 Siberia, Eastern (690.3)  
 Siberia, Western (690.2)  
 Sicily (550)  
 Sierra Leone (755)  
 Sikkim (615) (republic), (641.71) (province of India)  
 Silicates 126.2 (mineralogy), 453 (mineral resources)  
 Siliceous earth 459  
 Silicon 439.5  
 Silurian 334 (stratigraphy), 685 (stratigraphic  
 paleontology)  
 Silver 431  
 Singapore (Republic) (912)  
 Sinkholes 547, 248

Sinkiang-Uighur (610.7)  
 Skagerak (056)  
 Skarn 190  
 Slate 475  
 Slovenia (596.3)  
 Smectite 441  
 Snow 256  
 Snow surveying 781  
 Soapstone 476  
 Societies 020  
 Society Islands (960)  
 Sociology 065  
 Socotra (673)  
 Sodium 439.21  
 Soil age 180.3  
 Soil chemistry 892  
 Soil congresses 941.1  
 Soil conservation 941  
 Soil ecology 919.94  
 Soil formation 518  
 Soil mechanics 768  
 Soil micromorphology 941  
 Soil moisture 944  
 Soil physics 941  
 Soil pollution 583  
 Soil sciences 941  
 Soil structure 941  
 Soil surveys 941  
 Soils, agricultural 941  
 Soils engineering 768  
 Soils (origin) 518  
 Solar power and energy (applied) 771  
 Solar system 735  
 Solid state physics 815.6  
 Solids 821  
 Solomon Islands (937)  
 Solution chemistry 855  
 Somalia (773)  
 Somaliland, see Somalia (773)  
 Sorption 890.1 (includes sorbents)  
 Sound 825  
 South Africa (region) (780)  
 South Africa, Republic of (787)  
 South Africa, Union of, see South Africa, Republic of (787)  
 South African Republic (784)  
 South America (400)  
 South Atlantic Islands (749.5)  
 South Australia (840)  
 South Carolina (232)  
 South Dakota (265)  
 Southwest Africa, see Namibia (781)  
 Southeastern Asia (region) (629)  
 Southern Africa (region) (780)  
 Soviet Central Asia (693.5)  
 Soviet Union (570)  
 Space biology 730.4  
 Space chemistry 730.3  
 Space exploration 739  
 Space plasma 295.3  
 Space sciences (general) 739  
 Space shuttles 739.7  
 Space stations 739.8  
 Spain (560)  
 Spanish Guinea (741.5)  
 \*Spanish Morocco (740)  
 Spanish Sahara (741)  
 Spatial data handling 759.5  
 Specific gravity 814.8  
 Specifications, engineering 763  
 Spectroscopy 835 (theory), 886 (analytic chemistry)  
 Spectrum analysis 881  
 Speleology 547  
 Spongida, see Porifera 982 (zoology), 621 (stratigraphic paleontology)  
 Springs 491, 551  
 Springs, hot (geology) 230  
 Sri Lanka (649)  
 Stars 734.4  
 Statistical yearbooks 055  
 Statistics 067, 719 (mathematics) (see also specific subjects)  
 Statistics in geology 208.2  
 Statistics in mineralogy 408  
 Steel 429.3  
 Steel metallography 896  
 Stochastic processes 718  
 Stocks 270  
 Stoneware 441.1  
 Storm sewers 793  
 Stormwater management 781  
 Stratigraphic correlation 315  
 Stratigraphic geology 300  
 Stratigraphic paleontology 680  
 Stream control (hydrology) 785  
 Stream measurements 783  
 Strip mining 425  
 Stromatoporoids 626  
 Strontium 439.2  
 Structural crystallography 112  
 Structural engineering 767  
 Structural geology 260  
 Structural petrology 165  
 Style manuals 053.2  
 Submarine geology 203(050)  
 Submarine relief off coasts 523  
 Subsidence 248  
 Sudan (720.5)  
 Sulfates 126.6  
 Sulfides 122

Sulfur 445  
 Sulpho-salts 123  
 Sumatra (910)  
 Sun 734.5  
 Sunda Islands (910)  
 Suqutra or Socotra, see People's Democratic Republic of  
     Yemen (673)  
 Surinam (482)  
 Surveying 750  
 Surveying congresses 750.1  
 Surveying, mine 424  
 Surveys, soil 941  
 Swamps 556  
 Swaziland (788)  
 Sweden (583)  
 Switzerland (535)  
 Synthesis 889  
 Syria (682)  
 Szechwan (610.8)

Tables, engineering 765  
 Tables, mathematical 705  
 Tadzhik S.S.R. (694)  
 Taiwan (611)  
 Tamil Nadu (642)  
 Tanganyika, see Tanzania (774)  
 Tantalates 126.3  
 Tantalum 439  
 Tanzania (774)  
 Tasmania (880)  
 Taymyr Peninsula (R.S.F.S.R.) (690.3)  
 Technetium 439  
 Technical dictionaries 051.1  
 Technical writing 053.2  
 Techniques 108 (mineralogy), 150.8 (petrology), 208  
     (geology), 608 (paleontology), 708 (mechanics and  
     engineering), 808 (physics), 908 (biology)  
 Technology (general) 030  
 Tectonic geology 210  
 Tectonics (geology) 210  
 Tectonics, plate 311  
 Tellurates 126.6  
 Tellurides 122  
 Tellurium 439.5  
 Temperature 218 (earth), 511 (atmosphere)  
 Tennessee (239)  
 Terbium 439.3  
 Terraces (landforms) 546  
 Terrestrial magnetism, see Geomagnetism 296  
 Tertiary 351 (stratigraphy), 689.1 (paleontology)  
 Texas (245)  
 Thailand (635)  
 Thallium 439  
 Thalophytes 931 (botany), 697.1 (paleobotany)  
 Theory of error 718

Thermal pollution of lakes, rivers, and so forth 795.6  
 Thermochemistry 852  
 Thermodynamics 834  
 Thorium 439.4  
 Thulium 439.3  
 Tibet (616)  
 Tide gages 532  
 Tides 532  
 Tile 441.1  
 Time (general works) 809  
 Time, geologic 315  
 Tin 434  
 Titanates 126.2  
 Titanium 439  
 Tobago (394.2)  
 Togo (748)  
 Tokelau Islands (960)  
 Tonga Islands (960)  
 Topographic drawing 753  
 Topographic maps 500  
 Torsion balance 426.4  
 Tourmaline 487  
 Trace elements 413  
 Trace fossils 610  
 Tracks, fossil 610  
 Transbaikalia (690.3)  
 Transcaucasia (693)  
 Trans-Jordan, see Jordan (685)  
 Transvaal (785)  
 Trap 477  
 Travel and description 590  
 Tremolite 446.1  
 Triangulation 743  
 Triassic 341 (stratigraphy), 688.1 (stratigraphic  
     paleontology)  
 Trigonometry 714  
 Trilobite 662.3  
 Trinidad (394.2)  
 Tripoli (710)  
 Tripoli 459 (siliceous earth)  
 Tripolite 459  
 Tripolitania, see Libya (710)  
 Tripura (641.8)  
 Tristan da Cunha (749.5)  
 Tsunamis 533  
 Tuamotu (960)  
 Tungstates 126.7  
 Tungsten 439  
 Tunicata 989  
 Tunisia (735)  
 Tunnels 773  
 Turkey (680)  
 Turkmen S.S.R. (695.3)  
 Turkmenistan, see Turkmen S.S.R. (695.3)  
 Turks and Caicos Islands (395)

- Tuvalu (960)
- Uganda (776)
- Ukraine (571)
- Ultrabasic rocks 170
- Unconformability 287
- Underground water 490
- Undetermined material (paleontology) 611
- Ungava (140)
- United Arab Emirates (675)
- United Kingdom (510)
- United States (200)
- Universities 020
- Upper Volta, see Burkina Faso (747)
- Uranium 439.4
- Urban geology 203.6
- Urban planning 585.5 (conservation), 065.3 (sociology)
- Urenates 126.5
- Uruguay (490)
- Utah (273)
- Uttar Pradesh (640.8)
- Uzbekistan, see Uzbek S.S.R (696)
- Uzbek S.S.R (696)
- Valleys 545
- Vanadates 126.4
- Vanadium 439
- Vanuatu (935)
- Vector analysis 719
- Vehicles 770.3
- Veins 411
- Venezuela (470)
- Vermes 984 (zoology), 640 (paleozoology)
- Vermiculite 446.3
- Vermont (213)
- Vertebrata 990 (zoology), 670 (paleozoology)
- Vertebrates 990 (zoology), 670 (paleozoology)
- Vibrations 849
- Victoria (830)
- Vietnam (631)
- Virgin Islands (394.1)
- Virgin Islands, British (394.2)
- Virginia (227)
- Volcanic ash 447
- Volcanic cinders 479
- Volcanic rocks 170
- Volcanism 220
- Volcanoes 220
- Volcanoes, extinct 225
- Volumetric analysis 884
- Wales (520)
- Washington (State) (284)
- Washington, D.C. (226)
- Waste or Waste disposal 799.5
- Water, analysis 796
- Water chemistry 797
- Water composition 797 (surface), 495 (underground)
- Water conservation 793
- Water contamination 795 (surface), 494 (underground)
- Water pollution 795 (surface), 494 (underground)
- Water pollution control 797
- Water power 785
- Water quality 797
- Water resources development 784
- Water rights 798
- Water rights legislation 798
- Water storage 791
- Water, underground 490
- Waterfalls 553
- Watersheds 552
- Water-supply 490 (underground), 780 (surface), 790 (rural agriculture), 793 (domestic, industrial, and military)
- Waterworks 793
- Waves 533 (oceanography), 825 (sound waves), 835 (light waves), 838 (electromagnetic waves), 849 (physics)
- Weathering 211
- Weights 814
- Welfare 065.6
- Well drilling 777
- Well logging 426
- Wells, artesian 492
- West Bengal (643.2)
- West Central Africa region (750)
- West Indies (390)
- West Irian (Western half of New Guinea) (910)
- West Virginia (228)
- Western Australia (860)
- Western Sahara (741)
- Western Samoa (960)
- Wetlands 556
- Whirlpools 553
- White Russia, see Byelorussian S.S.R. (577)
- Wildlife conservation and management 585
- Wildlife refuges 585.3 (environmental analysis), 585.7 (parks and recreation areas)
- Windward Islands (397)
- Winds 515
- Wisconsin (254)
- World (geographic numbers) (000)
- Wyoming (282)
- Yearbooks, statistical 055
- Yellowstone National Park (282)
- Yemen Arab Republic (671)
- Yemen, North, see Yemen Arab Republic (671)
- Yemen, South, see People's Democratic Republic of Yemen (673)

Ytterbium 439.3  
Yttrium 439  
Yugoslavia (596)  
Yukon (182)

Zaire (764)  
Zambia (761)

Zeolites 126.2 (mineralogy), 453 (mineral resources)  
Zimbabwe (760)  
Zinc 435  
Zinnwaldite 446.3  
Zirconium 439  
Zoology 970  
Zululand (786)





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