

**MOLECULAR FORMULA LIST OF
COMPOUND NAMES AND REFERENCES
TO PUBLISHED ULTRAVIOLET
AND VISIBLE SPECTRA**



**Published by the
AMERICAN SOCIETY FOR TESTING AND MATERIALS
1916 Race St., Philadelphia 3, Pa.**

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Indexed by the Wyandotte-ASTM (Kuentzel)
Punched-Card Index



Reg. U.S. Pat. Off.

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This list includes the 16,130 compounds, the ultraviolet or visible spectra of which have been indexed by the Wyandotte-ASTM (Kuentzel) Punched-Card Index as issued through the fifth supplement. The serial numbers provide a reference to the location of the original spectra as published in the literature or in standard catalogues of spectra. For the published catalogues of spectra, the serial numbers in this book are the same as those assigned by the publisher. For spectra abstracted from the literature by ASTM Committee E-13 on Absorption Spectroscopy (letter D below), the assigned serial numbers provide a reference to the original publication in the appendix to this book (page 114). The added letters have the following significance:

1. Final letters indicate the spectral range, thus:

C—Ultraviolet spectra

D—Visible spectra

2. The following letters indicate source of spectra:

A—American Petroleum Inst., Research Project 44, Chemistry Dept., Agricultural and Mechanical College of Texas, College Station, Tex.

D—Abstracted from the literature by volunteers sponsored by ASTM Committee E-13 on Absorption Spectroscopy. Journal and book references for these spectra will be found in an appendix to this book (page 114).

U—Sadler Research Laboratories, 1517 Vine Street, Philadelphia 2, Pa.

The names of the compounds are those provided by the authors. These have been rearranged to provide an Index Name according to

the inversion naming system used by *Chemical Abstracts* and punched into IBM cards.

The machine listing of these cards, from which this book was prepared, is limited to such characters, digits, and letters as are available on the IBM 1401 computer used for this work. This necessitates having a slanting line serve as parenthesis, while bracket marks and the letters PR are used to indicate prime marks. Greek letters are either spelled out or represented by their English equivalents. Obvious abbreviations as C for Cis, T for Trans, O for Ortho, M for Meta, P for Para, D for Dextrorotary, L for Levorotary, N for Normal, and so forth, should offer no difficulty.

Arrangement is by the order of the numbers of atoms in the molecular formulas. Identity of the atoms involved and their sequence in determining the numerical order is listed about every 25 lines. Vertical columns of digits record the numbers of atoms involved in increasing numerical order. The series of digits from left to right on a given line indicates the numbers and kinds of atoms in the molecular formula of the compound, the name of which is listed on the same line. The positions of the molecular formulas in the list are determined by the numbers of atoms of elements beginning at the left with carbon. Elements other than those given are ignored; this includes deuterium.

Since the list indexes all published spectra, there are many cases where several references for the spectrum of the same compound are given. Thus, under C_7H_8 , there are fifteen listings for toluene. The user thus has the opportunity of selecting the most readily available and reliable reference for the data or of selecting several spectra for comparative purposes. A short list, in alphabetical order of names, for materials of unknown molecular formulas and inorganics appears at the end of the regular

list (page 101). Compounds whose visible spectra are indexed appear in a separate listing beginning on page 102. Journal and book references for these spectra may be found in the appendix beginning on page 145.

It is expected that annual supplements to this index will be issued to cover new spectra added to the punched-card index. While designed primarily as an aid to users of the Wyandotte-ASTM Punched-Card System, this index provides an excellent source of references to the published literature of ultraviolet and visible spectra and should find ready use in any ultraviolet laboratory. Material for this book was processed at the Wyandotte-ASTM Punched-Card Project, Wyandotte Chemicals Corp., Wyandotte,

Mich. and acknowledgment is made of the donation of computer time for this purpose. Errors found in the listing should be reported directly to:

L. E. Kuentzel
Wyandotte-ASTM Punched-Card Project
Wyandotte Chemicals Corp.
Wyandotte, Mich.

Orders for punched cards and index books should be directed to:

R. G. Brunner
Assistant Technical Secretary
American Society for Testing and Materials
Philadelphia 3, Pa.

