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Fifth Edition

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Editor in Chief

McGraw-Hill, Inc.

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On the cover: Photomicrograph of crystals of vitamin B₁,
(Dennis Kunkel, University of Hawaii)

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1 2 3 4 5 6 7 8 9 0 DOW/DOW 9 9 8 7 6 5 4 3

ISBN 0-07-042333-4

Library of Congress Cataloging-in-Publication Data

McGraw-Hill dictionary of scientific and technical terms /
Sybil P. Parker, editor in chief. —5th ed.
p. cm.
ISBN 0-07-042333-4
1. Science—Dictionaries. 2. Technology—Dictionaries.
I. Parker, Sybil P.
Q123 M34 1993
503—dc20 93-34772
CIP

INTERNATIONAL EDITION

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of a quadratic form Also known as three-index symbols { kris tof'əl ,sɪm'bəlz }

christophite See marmatite { kris tə,fit }

chroma [OPTICS] 1 The dimension of the Munsell system of color that corresponds most closely to saturation, which is the degree of vividness of a hue Also known as Munsell chroma 2. See color saturation { 'krō-mə }

chroma band-pass amplifier See burst amplifier { 'krō-mə 'bænd ,pas 'am plə fī-ər }

chroma control [ELECTR] The control that adjusts the amplitude of the carrier chrominance signal fed to the chrominance demodulators in a color television receiver, so as to change the saturation or vividness of the hues in the color picture Also known as color control color-saturation control { 'krō-mə kən'trəl }

chromadizing [MET] Treating the surface of aluminum or aluminum alloys with chromic acid to improve paint adhesion { 'krō-mə,dīz ŋ }

Chromadorea [INV ZOO] A subclass of nematode worms in the class Adenophorea { ,krō-mə'dor-ē-ə }

Chromadorida [INV ZOO] An order of principally aquatic nematode worms in the subclass Chromadorea { ,krō-mə'dor-ē-də }

Chromadoridae [INV ZOO] A family of soil and fresh-water, free-living nematodes in the superfamily Chromadoroidea, generally associated with algal substances { ,krō-mə'dor-ē,dē }

Chromadoroidea [INV ZOO] A superfamily of small to moderate-sized free living nematodes with spiral, transversely ellipsoidal amphids and a striated cuticle { ,krō-mə'də'roid ē-ə }

chromaffin [BIOL] Staining with chromium salts { krō ma'fæn }

chromaffin body See paraganglion { krō'ma'fæn ,bəd-ē }

chromaffin cell [HISTOL] Any cell of the suprarenal organs in lower vertebrates, of the adrenal medulla in mammals, of the paraganglia, or of the carotid bodies that stains with chromium salts { krō'ma'fæn ,sɛl }

chromaffin system [PHYSIO] The endocrine organs and tissues of the body that secrete epinephrine, characterized by an affinity for chromium salts { krō'ma'fæn ,sɪs'təm }

chroma oscillator [ELECTR] A crystal oscillator used in color television receivers to generate a 3 579545 megahertz signal for comparison with the incoming 3 579545-megahertz chrominance subcarrier signal being transmitted Also known as chrominance-subcarrier oscillator, color oscillator color-subcarrier oscillator { 'krō-mə 'as-ə,lād-ər }

chromascope [OPTICS] An instrument used to determine the optical effects of color { 'krō-mə,skɒp }

chromate [INORG CHEM] CrO_4^{2-} 1. An ion derived from the unstable acid H_2CrO_4 2. A salt or ester of chromic acid [MINERAL] A mineral characterized by the cation CrO_4^{2-} { 'krō,māt }

chromate treatment [MET] Treatment of metal with a solution of a hexavalent chromium compound to produce a protective coating of metal chromate { 'krō,māt ,trēt'mənt }

Chromatiaceae [MICROBIO] A family of bacteria in the suborder Rhodospirillales, motile cells have polar flagella, photosynthetic membranes are continuous with the cytoplasmic membrane, all except one species are anaerobic, and bacteriochlorophyll *a* or *b* is present { ,krō-mad-ē'as-ē,ī }

chromatic [OPTICS] Relating to color { krō'mad-ik }

chromatic aberration [ELECTR] An electron-gun defect causing enlargement and blurring of the spot on the screen of a cathode-ray tube, because electrons leave the cathode with different initial velocities and are deflected differently by the electron lenses and deflection coils [OPTICS] An optical lens defect causing color fringes, because the lens material brings different colors of light to focus at different points Also known as color aberration { krō'mad-ik ab-ə'rā-shən }

chromatic adaptation [PHYSIO] A decrease in sensitivity to a color stimulus with prolonged exposure [PSYCH] Modification in the perceived hue or saturation of a light stimulus resulting from prior viewing of a light of different hue or saturation { krō'mad-ik ad,əp'rā-shən }

chromatic diagram See chromaticity diagram { krō'mad-ik dī ə,gram }

chromatic difference of magnification [OPTICS] Variation in the size of the image produced by an optical system with the wavelength (or, equivalently, color) of light Also known as

chromatic difference of magnification { krō'mad-ik dīf'rəns əv mæg

chromaticity [OPTICS] The color quality of light that can be defined by its chromaticity coordinates depends only on hue and saturation of a color and not on its luminance (brightness) { ,krō-mə'tis-əd-ē }

chromaticity coordinates [OPTICS] The fractional amounts of the *x*, *y*, and *z* primary colors specified by the International Commission on Illumination, in a color sample, more precisely $x = X / (X + Y + Z)$, $y = Y / (X + Y + Z)$, $z = Z / (X + Y + Z)$, where *X*, *Y*, and *Z* are the integrals over wavelength λ of the product of the amount of light emerging from the sample per unit wavelength, and the tristimulus values, $\bar{x}(\lambda)$, $\bar{y}(\lambda)$ and $\bar{z}(\lambda)$ respectively { ,krō-mə'tis-əd-ē kō'ord-ən,āts }

chromaticity diagram [OPTICS] A triangular graph for specifying colors whose ordinate is the *y* chromaticity coordinate and whose abscissa is the *x* chromaticity coordinate the apexes of the triangle represent primary colors Also known as chromatic diagram { ,krō-mə'tis-əd-ē dī ə,gram }

chromatic mineral [MINERAL] A mineral with color { krō'mad-ik ,mɪn-ərəl }

chromatic number [MATH] For a specified surface, the smallest number *n* such that for any decomposition of the surface into regions the regions can be colored with *n* colors in such a way that no two adjacent regions have the same color { krō mad-ik nəm-bər }

chromatic parallax [OPTICS] A type of optical parallax that arises from the dependence of the position of the focal plane on the wavelength of light { krō'mad-ik 'par-ə,laks }

chromatic resolving power [OPTICS] The difference between two equally strong spectral lines that can barely be separated by a spectroscopic instrument divided into the average wavelength of these two lines for prisms and gratings Rayleigh's criteria are used and the term is defined as the width of the emergent beam times the angular dispersion { krō mad-ik rə'zolvɪŋ ,paʊ-ər }

chromatics [OPTICS] 1. The branch of optics concerned with the properties of colors 2. The part of colorimetry concerned with hue and saturation { krō mad-iks }

chromatic sensitivity [OPTICS] The smallest change in wavelength of light that produces a change in hue which is just large enough to be detected by human vision { krō'mad-ik sen sə'tɪv-əd-ē }

chromatic valence [PHYSIO] A relative measure of the hue-producing effectiveness of a chromatic stimulus { krō mad-ik 'væl-əns }

chromatic vision [PHYSIO] Vision pertaining to the color sense, that is the perception and evaluation of the colors of the spectrum { krō mad-ik vɪʒ ən }

chromatid [CYTOL] 1. One of the pair of strands formed by longitudinal splitting of a chromosome which are joined by a single centromere in somatic cells during mitosis 2. One of a tetrad of strands formed by longitudinal splitting of paired chromosomes during diplotene of meiosis { krō-mət-əd }

chromatin [BIOCHEM] The deoxyribonucleoprotein complex forming the major portion of the nuclear material and of the chromosomes { 'krō mə'tɪn }

chromating [MET] Performing a chromate treatment { 'krō,mād-ŋ }

Chromatium [MICROBIO] A genus of bacteria in the family Chromatiaceae, cells are ovoid to rod shaped, are motile do not have gas vacuoles, and contain bacteriochlorophyll *a* on vesicular photosynthetic membranes { krō'māsh ē-əm }

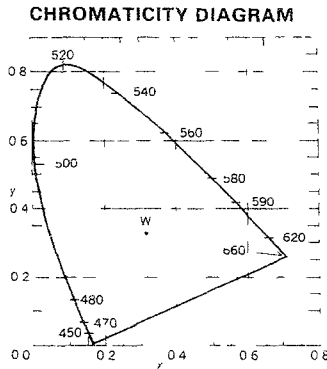
chromatogram [ANALY CHEM] The pattern formed by zones of separated pigments and of colorless substance in chromatographic procedures { krō'mad ə,gram }

chromatograph [ANALY CHEM] To employ chromatography to separate substances { krō mad-ə,graf }

chromatographic adsorption [ANALY CHEM] Preferential adsorption of chemical compounds (gases or liquids) in ascending molecular weight sequence onto a solid adsorbent material such as activated carbon, alumina, or silica gel used for analysis and separation of chemical mixtures { krō'mad ə,graf-ik ad'sɔrps-ʃən }

chromatographic bed [ANALY CHEM] Any of the different configurations in which the stationary phase is contained { krō'mad-ə,graf-ik 'bed }

chromatography [ANALY CHEM] A method of separating and



International Committee on Illumination chromaticity diagram The wavelengths of the visible spectrum in units of 10^{-8} meter are indicated along the curve W represents a white composed of equal amounts of the three primaries

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