

McGraw-Hill
DICTIONARY OF
SCIENTIFIC AND
TECHNICAL TERMS
Fourth Edition

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McGraw-Hill DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS

Fourth Edition

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On the cover: Pattern produced from white light by a computer-generated diffraction plate containing 529 square apertures arranged in a 23 × 23 array. (R. B. Hoover, Marshall Space Flight Center)

On the title pages: Aerial photograph of the Sinai Peninsula made by Gemini spacecraft. (NASA)

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toe-to-toe drilling [ENG] The drilling of vertical large-diameter blasting holes in quarries and opencast pits. { 'tō tō 'tō 'dril-iŋ }

tofán [METEOROL] A violent spring storm common in the mountains of Indonesia. { 'tō 'fán }

to-from indicator [NAV] An indicator that shows whether an aircraft is flying toward or away from an omnirange station. Also known as sense indicator. { 'tū 'frəm ,in'də,kād-ər }

toggle [ELECTR] To switch over to an alternate state, as in a flip-flop. [MECH ENG] A form of jointed mechanism for the amplification of forces. { 'täg-əl }

toggle bolt [DES ENG] A bolt having a nut with a pair of pivotal wings that close against a spring; wings open after emergence through a hole or passage in a thin or hollow wall to fasten the unit securely. { 'täg-əl ,bölt }

toggle condition [ELECTR] Condition of a flip-flop circuit in which the internal state of the flip-flop changes from 0 to 1 or from 1 to 0. { 'täg-əl kən,dish-ən }

toggle press [MECH ENG] A mechanical press in which a toggle mechanism actuates the slide. { 'täg-əl ,pres }

toggle switch [ELEC] A small switch that is operated by manipulation of a projecting lever that is combined with a spring, to provide a snap action for opening or closing a circuit quickly.

[ELECTR] An electronically operated circuit that holds either of two states until changed. { 'täg-əl ,swich }

toise [GEOD] A unit of length equal to about 6.4 feet (1.95 meters); used in early geodetic surveys. { 'tōiz }

tokamak [PL PHYS] A device for confining a plasma within a toroidal chamber, which produces plasma temperatures, densities, and confinement times greater than that of any other such device; confinement is effected by a very strong externally applied toroidal field, plus a weaker poloidal field produced by a toroidally directed plasma current, and this current causes ohmic heating of the plasma. { 'tāk-ə ,mak }

token [COMMUN] A unique grouping of bits that is transmitted as a unit in a communications network and used as a signal to notify stations in the network when they have control and are free to send information. [COMPUT SCI] 1. A distinguishable unit in a sequence of characters. 2. A single byte that is used to represent a keyword in a programming language in order to conserve storage space. { 'tō-kən }

tokenization [COMPUT SCI] The conversion of keywords of a programming language to tokens in order to conserve storage space. { ,tō-kən-ə 'zā-shən }

token passing protocol [COMMUN] The assignment of data communications channels to units which communicate according to a fixed priority sequence. { 'tō-kən 'pas-iŋ 'prōd-ə ,kōl }

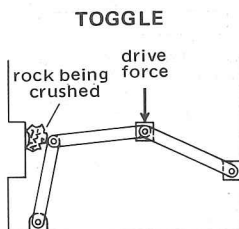
token sharing network [COMMUN] A communications network in which all the stations are linked to a common bus and control is determined by a group of bits (token) that is passed along the bus from station to station. { 'tō-kən 'sher-iŋ 'net,wərk }

tolazoline hydrochloride [ORG CHEM] $C_{10}H_{12}N_2 \cdot HCl$ Water-soluble white crystals, and melting at 173°C; used as a sympatholytic and vasodilator. Also known as priscol. { 'tāl'az-ə ,lən 'hī-drə'klōr,īd }

tolbutamide [PHARM] $C_{12}H_{18}N_2O_3S$ A hypoglycemic drug effective when administered orally. { 'tāl'byüd-ə ,mīd }

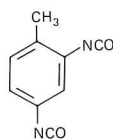
toleragen [IMMUNOL] A substance which, in appropriate dosages, produces a state of specific immunological tolerance in humans or animals. { 'tāl-ə-rə-jən }

tolerance [DES ENG] The permissible variations in the dimensions of machine parts. [ENG] A permissible deviation from a specified value, expressed in actual values or more often as a percentage of the nominal value. [PHARM] 1. The ability



Toggle mechanism used in a rock crusher; relatively small drive force causes large force to be applied to rock.

TOLUENE-2,4-DIISOCYANATE



Structural formula.

the degree of tolerance allowed in fitting cylinders into cylindrical holes, equal, in micrometers, to $0.45 D^{1/3} + 0.001 D$ where D is the cylinder diameter in millimeters. { 'tāl-ə-rə ,yü-nət }

ortho-tolidine [ORG CHEM] $[C_6H_3(CH_3)NH_2]$ Light-sensitive, combustible white to reddish crystals soluble in alcohol and ether, slightly soluble in water, melts at 130°C; used as an analytical reagent and a curing agent for urethane resins. { 'thō 'tāl-ə ,dēn }

toll [COMMUN] 1. Charge made for a connection beyond an exchange boundary. 2. Any part of telephone plant, circuit, or services for which toll charges are made. { 'tōl }

toll call [COMMUN] Telephone call to points beyond the area within which telephone calls are covered by a flat monthly rate or are charged for on a message unit basis. { 'tōl ,kōl }

toll center [COMMUN] A telephone central office where trunks from end offices are joined to the long-distance system and operators are present; it is a class-4 office. { 'tōl ,sen-tər }

toll enrichment [NUCLEO] A proposed arrangement where privately owned uranium could be enriched in uranium-235 content in government facilities upon payment of a service charge by the owners. { 'tōl in'rich-mənt }

Tollen's aldehyde test [ANALY CHEM] A test that uses an ammoniacal solution of silver oxides to test for aldehydes and ketones. { 'tāl-ənz 'al-də,hīd ,test }

toll line [COMMUN] A telephone line or channel that connects different telephone exchanges. { 'tōl ,līn }

toll office [COMMUN] A telephone central office which serves mainly to terminate and interconnect toll lines and various types of trunks. { 'tōl ,ōf'is }

toll television See subscription television. { 'tōl 'tel-ə ,vī-zən }

toll terminal loss [COMMUN] The part of the overall transmission loss on a toll connection that is attributable to facilities from the toll center through the tributary office, and including the subscriber's equipment. { 'tōl 'tər-mī-nəl ,lōs }

α-toluamide See α-phenylacetamide. { 'al-fə 'tāl-ü'am-əd }

toluene [ORG CHEM] $C_6H_5CH_3$ A colorless, aromatic liquid derived from coal tar or from the catalytic reforming of petroleum naphthas; insoluble in water, soluble in alcohol and ether, boils at 111°C; used as a chemical intermediate, for explosive and in high-octane gasolines. Also known as methylbenzene, phenylmethane; toluol. { 'tāl-yə ,wēn }

toluene 2,4-diisocyanate [ORG CHEM] $CH_3C_6H_3(NCO)_2$ A liquid (at room temperature) with a sharp, pungent odor, miscible with ether, acetone, and benzene; used to make polyurethane foams and other elastomers, and also as a protective cross-linking agent. { 'tāl-yə ,wēn 'tū 'fōr dī'r-sō'sī-ə ,nāt }

para-toluenesulfonic acid [ORG CHEM] $C_6H_4(SO_3H)(CH_3)$ Toxic, colorless, combustible crystals soluble in water, alcohol, and ether; melts at 107°C; used in dyes and as a chemical intermediate and organic catalyst. { 'par-ə 'tāl-yə ,wēn ,sōl'fīk 'as-əd }

toluenethiol See thiocresol. { 'tāl-yə ,wēn 'thī ,ōl }

α-toluic acid See phenylacetic acid. { 'al-fə tō'lū-ik 'as-əd }

meta-toluic acid [ORG CHEM] $C_6H_4CH_3COOH$ White, yellow, combustible crystals soluble in alcohol and ether, slightly soluble in water, melts at 109°C; used as a chemical intermediate and base for insect repellants. Also known as meta-toluylic acid. { 'med-ə tō'lū-ik 'as-əd }

ortho-toluic acid [ORG CHEM] $C_6H_4CH_3COOH$ White, combustible crystals soluble in alcohol and chloroform, slightly soluble in water, melts at 104°C; used as a bacteriostat. Also known as ortho-toluylic acid. { 'ōr-thō tō'lū-ik 'as-əd }