

# GRANT & HACKH'S CHEMICAL DICTIONARY

[*American, International, European and British Usage*]

*Containing the Words Generally Used in Chemistry,  
and Many of the Terms Used in the Related  
Sciences of Physics, Medicine, Engineering,  
Biology, Pharmacy, Astrophysics,  
Agriculture, Mineralogy, etc.*

*Based on Recent Scientific Literature*

FIFTH EDITION

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McGRAW-HILL BOOK COMPANY

*New York St. Louis San Francisco Auckland Bogotá  
Hamburg Johannesburg London Madrid Mexico  
Milan Montreal New Delhi Panama  
Paris São Paulo Singapore  
Sydney Tokyo Toronto*

**Library of Congress Cataloging-in-Publication Data**

Hackh, Ingo W. D. (Ingo Waldemar Dagobert), 1890-1938.  
Grant & Hackh's chemical dictionary.

Rev. ed. of: Chemical dictionary. 4th ed. 1969.  
I. Chemistry—Dictionaries. I. Grant, Roger L.  
II. Grant, Claire. III. Title. IV. Title: Grant &  
Hackh's chemical dictionary. V. Title: Chemical  
dictionary.

QD5.H3 1987 540'.3 86-7496  
ISBN 0-07-024067-1

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1234567890 DOCD0C 8943210987

ISBN 0-07-024067-1

The previous edition of this book was *Hackh's Chemical Dictionary*,  
4th ed., published by McGraw-Hill in 1969. It was prepared by Dr.  
Julius Grant from a *Chemical Dictionary* compiled by Ingo W. D.  
Hackh. The current, or 5th, edition of this book was prepared by Dr.  
Roger L. Grant, whose father prepared the 4th edition.

*The editors for this book were Betty J. Sun and Susan Thomas,  
the designer was Naomi Auerbach, and the production  
supervisor was Teresa F. Leaden. It was set in Palatino  
by University Graphics, Inc.*

*Printed and bound by R. R. Donnelley & Sons Company.*

putrefaction, and has a fecal odor. Used as a microchemical reagent for cellulose and, diluted, in orange blossom perfume. Cf. indolyl. **diketo** ~ Isatin. **dihydrooxo** ~ Oxindole. **hydroxy** ~ Indoxyl. **iso** ~ \*  $C_6H_4 \cdot CH_2 \cdot N:CH =$

$C_6H_4 \cdot CH \cdot NH \cdot CH$ . 2-Benzazole. Stable below  $-196^\circ$  and in

solution under  $N_2$ . **2-methyl-1H-** ~  $C_9H_9N = 131.2$ .  $\beta$ -Methylindole, methyl ketol. Colorless crystals, m.59, soluble in water. **3-methyl-1H-** ~ Skatole. **nitro** ~  $C_8H_6O_2N_2 = 162.1$ . **3-** ~ Yellow needles, m.213.

**indolol** Indoxyl.

**indolone** 1- Phthalimidine. **2-** ~ Oxindole. **3-** ~  $\psi$ -Indoxyl.

**indolyl**\* The radical  $NC_8H_6-$ , from indole. **iso** ~ \* The radical  $NC_8H_6-$ , from isoindole.

**3-i.acetic acid**\*  $NC_8H_6 \cdot CH_2 \cdot COOH = 175.2$ . b.197, soluble in acetone. An auxin plant hormone with cell-enlargement properties.

**indomethacin**  $C_{19}H_{16}O_4NCl = 357.8$ . Indocid. White crystals, m.160, insoluble in water. An analgesic and anti-inflammatory, used to treat arthritis (USP, BP).

**indone** (1) Indenone\*. (2) 1-Indanone.

**indophenine**  $C_{24}H_{14}O_2N_2S_2 = 426.5$ . Colorless powder, insoluble in water.

**indophenol**  $CO(CH:CH)_2 \cdot CN \cdot C_6H_4 \cdot OH = 199.2$ . Hydroxyphenyliminobenzenone. Used to synthesize sulfur dyes.

**Indopol** Trademark for a range of moisture-resistant polybutenes, mol. wt. 300-1,900.

**indoxyl**  $C_6H_4 \cdot NH \cdot CH:C(OH) = 133.2$ . **alpha-** ~

3-Hydroxyindole. Yellow crystals, m.85, soluble in water; used in organic synthesis. Also in keto (pseudo) form.

i. **potassium sulfate** Indican.

**indoxylic acid**  $C_9H_7O_3N = 177.2$ . An oxidation product of indoxyl, b.122 (sublimes and decomp.), soluble in water.

**induced** Caused or produced indirectly. i. **current** A high-frequency current produced by an induction coil. i.

**radioactivity** Radioactivity produced by bombardment with neutrons, protons, or other particles. See **radioelements**. i.

**reaction** Sympathetic reaction. If a slow reaction between substances A and C is hastened by promoting a fast reaction between A and B, then A is the *actor* or *donor* (usually an oxidizing or reducing agent), B the *inductor*, and C the *acceptor*.

**inducer** Inductor.

**inductance**\* Induction. The extent to which a magnetic field is created as a result of a variation in current. Measured in henrys. **self-** ~ Resistance to a change in a current by the creation of a back emf. **mutual** ~ Creation of an emf in one circuit as a result of variation in the current of another; as in a transformer.

**induction** (1) A process of inference by which one passes from particular data to general principles. Cf. **deduction**. (2) Inductance\*. (3) See **induced reaction**. (4) A change (produced by radiation) in the energy of a molecule, due to interaction with another molecule, which is at a distance from it greater than the diameter of the first molecule. Cf. **collision**.

**chemical** ~ See **induction** (4). **electromagnetic** ~

Inductance\*. **mutual** ~ See **mutual inductance** under **inductance**.

**photochemical** ~ See **photochemical induction**.

**self-** ~ See **self-inductance** under **inductance**.

i. **coil** Electric transformer. A wire spool inside another, used to obtain high-frequency alternating currents from a continuous current passed through the primary (inner) coil.

i. **furnace** See **induction furnace** under **furnace**.

**inductive capacity** Relative *permittivity*\*.

**inductivity** Relative *permittivity*\*.

**inductor** See **induced reaction**.

**indulines** Blue or black *azine dyes*, q.v., with aryl substitution at all N atoms.

**indurated** Hardened, as in the firing of days.

**indyl** The indolyl radical.

**-ine** Suffix indicating (1) a halogen, as, chlorine; (2) an alkaloid or nitrogen base, as, morphine. Cf. **-in** (under *in*).

**inert** Sluggish; having little or no chemical action. i.

**elements** The *noble gases*\*, q.v., so called because of their low reactivity with other elements. i. **substance** A substance that is resistant to chemical or physical action.

**inertia** The tendency of a physical body to remain in an unchanged condition, either in a state of uniform motion, or at rest. **moment of** ~ A factor equal to  $\Sigma mr^2$  in the mathematic treatment of a rotating body, where *m* is the mass of each unit a distance *r* from the axis of rotation. Cf. **momentum**.

**infarct** An area of dead tissue in the body due to blockage of arterial blood supply. **myocardial** ~ Heart attack. An i. of heart muscle, or myocardium, due to blockage of an artery in the heart (coronary artery).

**infection** (1) Disease due to successful invasion and growth of microorganisms or protozoans in tissues of an organism, human or animal. (2) Transmission of infection. Cf.

**contamination**. **airborne** ~ Aerial i. I. caused by inhalation of dust particles or droplets containing microorganisms.

**droplet** ~ I. caused by inhalation of droplets from mouth and nose containing viruses or bacteria; e.g., measles, common cold. **focal** ~ I. in which the bacterial growth is

restricted to a small area of the organism. **mixed** ~ I. caused by more than one kind of bacterium.

**infectious disease** An infection due to bacteria or viruses spread between humans or animals by direct contact or by airborne route.

**infiltration** (1) The deposition of minerals from solution in the pores of a rock. (2) The spread of a foreign substance in the body tissues, as, an injected solution or spread of malignant cells.

**infinitesimal** Smaller than any assigned quantity. Negligible.

**inflammable** Flammable. i. **air** The original name for hydrogen.

**infra** Beyond. i. **luminescence** Luminescence whose

wavelengths are in the infrared region. i. **phonic** Infrasonic.

i. **photic** Pertaining to radiation of a wavelength too long to be visible; as, i. **red**. i. **red** i. r. Electromagnetic radiation in the

wavelength range  $10^{-3}$  to  $10^{-6}$  m ( $10^7$ - $10^4$  Å), which overlaps a portion of the visible spectrum. See the

accompanying table. Cf. **radiation**. i. **röntgen rays** Grenz

rays. i. **sonic** Pertaining to sound whose frequency is too slow to be perceived by the human ear (below 16-20 Hz). See **frequency**, **sound**.

	Infrared rays, %	Visible rays,
Sunlight	60	34
Incandescent lamp	95	4.8
Carbon arc	80	15
Resistance wire	99	0.5

**infundibuliform** A funnel-shaped bacterial growth.

**infusible** Not capable of being fused. i. **white precipitate** Mercuridiammonium chloride.