

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

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Completely Revised and Edited by

ROGER GRANT

M.A., D. de l'U., Ph.D., C. Chem., M.R.S.C. Consultant

CLAIRE GRANT

M.B., B.S., M.R.C.P.E. Medical Practitioner

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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° and in

solution under N_2 . **2-methyl-1H-** ~ $C_9H_9N = 131.2$. β -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-** ~ ψ -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.

indoxyllic acid $C_9H_7O_3N = 177.2$. An oxidation product of indoxyl, b.122 (sublimes and decomps.), 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 clays.

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 Σmr^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.

flammable Flammable. i. air The original name for hydrogen.

infra Beyond. i. luminescence Luminescence whose wavelengths are in the infrared region. i. phonics 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.