

# 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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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.