# EXHIBIT 2

# The Wordsworth Dictionary of Science & Technology



Wordsworth Reference

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# G

**g** *(Mech.)*. See **load factor**.
**g** *(Chem.)*. Abbrev. for *gram(me)*.
**g** *(Chem.)*. Symbol for osmotic coefficient.
**g** *(Opt.)*. A symbol for specified efficiency.
**g** *(Geol.)*. A symbol for acceleration due to gravity.
**g** *(Phys.)*. Symbol for: (1) substituted on the carbon atom of a chain next but two to the functional group; (2) substituted on one of the central carbon atoms of an anthracene nucleus; (3) substituted on the carbon atom next but two to the hetero-atom in a heterocyclic compound; (4) a stereoisomer of a sugar.
**g** *(Maths.)*. See **Euler's constant**.
**g** *(Phys.)*. Symbol for (1) ratio of specific heats of a gas, (2) surface tension, (3) propagation coefficient, (4) Grueneisen constant, (5) molar activity coefficient, (6) coefficient of cubic thermal expansion, (7) the greatest refractive index in a biaxial crystal, (8) electrical conductivity.
**g** *(Build.)*. Abbrev. for *gulley*.
**g** *(Elec.Eng.)*. See **G-value**.
**G** *(Gen.)*. Symbol for giga, i.e. $10^9$.
**G** *(Chem.)*. Symbol for: (1) thermodynamic potential; (2) Gibbs function; (3) free energy.
**G** *(Phys.)*. Symbol for (1) the constant of **gravitation**, (2) shear modulus, rigidity, (3) conductance.
**Γ** *(Maths.)*. Symbol for gamma function.
**Γ** *(Phys.)*. Symbol for surface concentration excess.
**Ca** *(Phys.)*. A pair of Fraunhofer lines in the deep blue of the solar spectrum. One, of wavelength 430.8081 nm, is due to iron; the other, of wavelength 430.7907 nm, is due to calcium.
**G1** *(Bot.)*. Period of growth in the cell cycle between the end of cell division and the beginning of DNA synthesis.
**G-10** *(Chem.)*. See **hexachlorophene**.
**G2** *(Bot.)*. As for G1 but between the end of DNA synthesis and the beginning of the next division.
**Ga** *(Chem.)*. The symbol for gallium.
**gad** *(Build.)*. A pointed tool for working hard stone.
**GABA** *(Med.)*. Abbrev. for *Gamma-Amino Butyric Acid*.
**gabbart scaffold** *(Build.)*. Scaffolding in which sawn timbers are used instead of round poles.
**gabbro** *(Geol.)*. The name of a rock clan, and also of a specific igneous rock type. The rock gabbro is a coarse grained plutonite, consisting essentially of plagioclase, near labradorite in composition, and clinopyroxene, with or without olivine in addition. The gabbro clan includes also norite, eucrite, troctolite, kentallenite, etc.
**gaberdine** *(Textiles)*. A firm twill fabric (e.g. with worsted warp and cotton weft), with the warp predominating on the surface; used for dress and suiting cloths and light showerproof overcoatings. All-cotton gaberdine is also used for similar purposes.
**gabers scaffold** *(Build.)*. A **gabbart scaffold**.
**gabion** *(Civ.Eng.)*. A long wicker or wire basket, containing earth or stones, deposited with others to serve the same purposes as **fascines**.
**gable** *(Build.)*. The triangular part of an external wall at the end of a ridged roof.
**gable board** *(Build.)*. A **barge board**.
**gable shoulder** *(Build.)*. The projecting masonry or brickwork supporting the foot of a gable.
**gable springer** *(Build.)*. The concrete, brick, or tile corbel supporting the gable shoulder.
**gable tiles** *(Build.)*. Purpose-made arris tiles to cover the intersection between gable and roof.
**gaboon** *(For.)*. Mahogany-like wood from a tree of the genus *Aucoumea*, found in parts of central and western Africa. Planed surfaces of the wood are silky. Used for veneer and plywood manufacture, furniture and fittings.
**Gabriel synthesis** *(Chem.)*. A reaction used in organic syntheses for the preparation of pure primary amines. Based on the use of potassium phthalimide (benzene 1,2-dicarboximide) and halogenoalkanes.
**gadding** *(Vet.)*. The excited behaviour of cattle when irritated by gad-flies.
**gad-fly** *(Vet.)*. A fly of the genus *Hypoderma*, the larva of which parasitizes cattle and is known as a *warble*.
**Gadiformes** *(Zool.)*. An order of mainly marine and often deep-water Osteichthyes with elongated body and long dorsal and anal fins. Some are economically important. Cod, Haddock and Grenadiers.
**gadolinite** *(Min.)*. Silicate of beryllium, iron, and yttrium, often with cerium; occurs in pegmatite.
**gadolinium** *(Chem.)*. A rare metallic element; trivalent; a member of the rare earth group. Symbol Gd, at.no. 64, r.a.m. 157.25. Only known in combination; obtained from the same sources as europium.
**Gaede diffusion pump** *(Chem.Eng.)*. Pump using mercury vapour, which entrains molecules of gas from a low pressure established by a backing pump. Oil of low vapour-pressure (apiezon) is a modern alternative.
**Gaede molecular pump** *(Chem.Eng.)*. Rotary pump which ejects molecules of gas by imparting a drift velocity to their random motion.
**gaffer** *(Image Tech.)*. Senior lighting electrician on a film or TV unit.
**gag** *(Med.)*. To retch; also a device for keeping the mouth open for surgical procedures.
**gagger** *(Foundry)*. See **lifter**.
**gahnite** *(Min.)*. A mineral belonging to the spinel group; occurs as grey octahedral cubic crystals. Also known as *zinc-spinel* (see **spinel**) the composition being zinc aluminate, $ZnAl_2O_4$.
**Gaia** *(Ecol.)*. Theory proposed by J.E. Lovelock in 1979 concerning the role of biota in maintaining a climatic homeostasis.
**gain** *(Telecomm.)*. (1) In electric systems, generally provided by insertion of an amplifier into a transmission circuit, or by matching impedances by a loss-free transformer. Measured in decibels or nepers, and defined as the increase in power level in the load, i.e. the ratio of the actual power delivered to that which would be delivered if source were correctly matched, without loss, to the load, on the absence of the amplifier. (2) In a directional antenna, ratio (expressed in decibels) of voltage produced at the receiver terminals by a signal arriving from the direction of maximum sensitivity of the antenna, to that produced by the same signal in an omnidirectional reference antenna (generally a half-wave dipole). In a transmitting antenna, ratio of the field strength produced at a point along the line of maximum radiation by a given power radiated from antenna, to that produced at the same point by the same power from an omnidirectional antenna.
**gain-bandwidth product** *(Telecomm.)*. A *figure of merit* rating for amplifiers, or transmission paths incorporating amplifiers, based on the product of gain and bandwidth as measured under specified conditions.
**gain control** *(Telecomm.)*. Means for varying the degree of amplification of an amplifier, often a simple potentiometer. See **automatic-**.
**gaiting** *(Textiles)*. The operation of preparing a loom for weaving by placing the warp in position.
**Gal** *(Chem.)*. Abbrev. for *Galactose*.
**galactagogue, galactagog** *(Med.)*. Promoting the secretion of milk (Greek, *gala*, gen. *galaktos*); any medicine which does this.
**galactans** *(Chem.)*. The anhydrides of galactose. They