



# DICTIONARY OF BUSINESS & SCIENTIFIC TERMS

Compiled by

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*Oklahoma Journal, Inc.*

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SECOND EDITION



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## DICTIONARY OF BUSINESS & SCIENTIFIC TERMS

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## Preface

The second edition of this dictionary has brought together in comprehensive form all the new terminology relating to aerospace and the aerospace program, computer terminology and the new field of oceanography. In addition, many new geological, medical, biological, botany and educational terms have been added.

It is believed that this is the first dictionary that has put together such a comprehensive group of diverse definitions. The reason for this is that there is now a definite relation between all these fields.

In aerospace programs of today and tomorrow, computers play an integral part, medical and biological aspects of earth and space environment are important to understand, in addition to man's physical makeup and his ability to undergo the stress necessary to live in outer space. Because of this, the knowledge of medicine and medical terms are as important as aerospace, physics and computer terminology.

In this same vein, the knowledge of geology, the understanding of biological and botany terms in regard to plant and animal life, physics, and meteorological terms become an important aspect of completing a comprehensive dictionary.

For the petroleum industry, the dictionary offers a comprehensive list of geological, production and related physics terms. Since offshore drilling has become of paramount importance, detailed coverage has been given oceanography terms and any geological terms relating to offshore drilling, seismic and oil prospecting.

In addition, there is also coverage of important and commonly used terms of business, finance, accounting, labor, law, personnel, psychology, psychiatry, neurology, statistical, time study, radio, high fidelity, education and teaching machine terminology.

The dictionary should not only be invaluable to business and industry, but should be of real aid in the field of education.

There are many glossaries and dictionaries printed on business, scientific and technical terms. Practically all of them fall into two basic groups. One is the full length book type, covering in detail all the terms of a particular

industry, profession or branch of study, such as medicine, biology, physics, psychology, chemistry, petroleum, electrical, electronics, aerospace, radio, legal, etc. The other group is comprised of those terms published in back of technical and text books in very brief form, covering only those definitions the author wishes to cover in relation to the subject in his book.

The only criticism of these books is that they were developed for a specific purpose, to serve the need of a particular profession or industry, and in many cases, many of the terms listed are so infrequently used as to make their reference necessary. There is also the additional fact that if any other related definitions were needed, additional reference sources would be necessary.

It was felt that what was needed was one book covering the most used and frequently referred to business and scientific terms. In this manner, all the important definitions of certain key industries and professions which information would be most likely sought after would be found under one cover.

The book was so designed as to be an excellent reference for both students studying many related subjects and who needed in one book all the necessary information; and business and industrial people who need to continually refer to new or unacquainted definitions.

It is surprising how often one in business will need to find the definition for a business law term or a medical term due to a compensation case; a computer term that is becoming common or any technical term relating to world aerospace activities. There are many times when one is reading a technical article reference is made to an electronic, physics, geological or statistical term which is unfamiliar. With such a book as this, it is possible to find the terms used without the need of going to any other source.

It is hoped this book will become a valuable part of your library.

*David F. Tver*

# Abbreviations Used

The following abbreviations represent the definitions of terms explained in the text.

bio	biology terms botany terms
bus	business terms insurance terms manufacturing terms
chem	chemistry terms organic-chemistry terms
comp ed	computer terms education terms teaching machine terms
elec	electrical terms radio terms high fidelity terms
fin	finance terms accounting terms
lab	labor and labor union terms
law	law terms business law terms
med	medical terms
ocean	oceanography
oil	oil industry terms production terms geological terms
pers	personnel terms wage & salary terms
photo	photography terms
physics	physic terms
psy	psychological terms psychiatry terms neurological terms
space	aerospace terms meteorological terms
stat	statistical terms
timestudy	timestudy terms

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# A DICTIONARY OF BUSINESS AND SCIENTIFIC TERMS

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## A

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**abandon** (oil) to cease efforts to produce oil or gas from a well, and to plug a depleted formation and salvage all material and equipment.

**abasement** (psy) an instinct involved in retreating inferiority.

**abasia** (psy) inability to walk because of loss of coordination.

**abatable nuisance** (law) a nuisance which may be terminated either by the party injured or by suit instituted by him for that purpose.

**abatement** (law) the ending of a suit at law for want of proper parties.

**A battery** (physics) the battery that furnishes current to heat the filament or heater of a vacuum tube.

**abdomen** (bio) (med) the part of the body between the chest and the pelvis.

**abdominal cavity** (bio) the cavity in the lower part of the trunk, below the diaphragm, in man and other animals.

**aberration** (med) deviation from the usual or normal course.

**aberration** (psy) a temporary mental deficiency, because of neurotic pressure.

**aberration** (space) in astronomy, the apparent angular displacement of the position of a celestial body in the direction of motion of the observer, caused by the combination of the velocity of the observer and the velocity of light.

**aberration, chromatic** (physics) the formation of colored fringes on lens images due to the failure of the lens to focus light of all wave lengths at an equal distance from the lens.

**aberration, spherical** (physics) a defect of lenses which causes light near the edge of the lens to focus closer to the lens than that falling near the center.

**abeyance** (law) the condition of a freehold when there is no person in being in whom it is vested.

**ability** (psy) the power to perform responsive acts. These acts may be complex coordinated movements, solutions of intellectual problems, discriminating judgments of appreciation, or other types of behavior.

**ab initio** (law) from the beginning. A contract which is void ab initio is void from its inception.

**abiogenesis** (psy) the hypothesis that life may originate spontaneously in inanimate matter; spontaneous generation.

**abiosis** (med) without life.

**ablate** (space) to carry away; specifically, to carry away heat generated by aerodynamic heating from a vital part by arranging for its absorption in a nonvital part, which may melt or vaporize, then fall away taking the heat with it.

**ablating material** (space) a material, especially a coating material, de-



signed to provide thermal protection to a body in a fluid stream through loss of mass.

**ablating nose cone (space)** a nose cone designed to reduce heat transfer to the internal structure by the use of an ablating material.

**ablation (space)** the removal of surface material from a body by vaporization, melting, chipping, or other erosive process; specifically, the intentional removal of material from a nose cone or spacecraft during the high speed movement through a planetary atmosphere to provide thermal protection to the underlying structure.

**able buyer (law)** a buyer is able who actually has the money to meet the cash payment demanded by the seller.

**ablution (med)** a washing or cleansing.

**abnormal (psy)** that which is unnatural.

Conduct is not abnormal just because it is unusual or contrary to accepted and average patterns and conventions. To be abnormal, it must be unhealthy, constricted, dwarfed, deformed, inhibited.

**abnormal reminiscence (psy)** a constant return of thought to the past.

**abort (space)** to cut short or break off an action, operation, or procedure with an aircraft, space vehicle, or the like, especially because of equipment failure.

**abortion (space)** a kill which prevents enemy targets from proceeding with their tactical mission; an unplanned termination of a missile mission.

**abrasion (med)** a rubbing or scraping off of the skin.

**abrasion platform (ocean)** a surface of marine denudation formed by wave erosion which is still in its original position at or near the wave base, with the marine forces still operating on it.

**abreaction (psy)** a release of emotional pressure connected with a neurotic state, created by reliving a past experience.

**abridge (law)** to reduce or to cut down a pleading or other writing.

**abrogate (law)** to repeal; to make void; to annul.

**abscess (bio)** a localization of pus in a cavity produced by the breakdown of tissues.

**abscissa (stat)** the horizontal axis in reference to a two-dimensional chart.

**abscission layer (bio)** two rows of cells near the base of a leaf petiole, causing the natural fall of leaves.

**absolute (physics) (space)** pertaining to a measurement relative to a universal constant or natural datum, as in absolute coordinate system and absolute altitude.

**absolute acceptance (law)** the unqualified assent to liability by the drawee in a bill of exchange.

**absolute age (oil)** time before present stated in years; referring to geologic events, generally based on measurement of radioactive decay rates and products of minerals or rock substances.

**absolute alcohol (oil)** 100% ethyl alcohol.

**absolute altimeter (space)** an altimeter that registers the absolute altitude of an aircraft. It usually works on the principle of measuring the time for transmission and return of radio frequency energy.

**absolute altitude (space)** altitude above the actual surface, either land or water, of a planet or natural satellite.

**absolute angle of attack (space)** the acute angle between the chord of an airfoil or of a body at any instant in flight and the chord of that airfoil or body at zero lift.

**absolute ceiling (space)** the maximum altitude above sea level at which an airborne missile can maintain horizontal flight in a standard atmosphere.

**absolute delay (elec)** the time interval between the transmission of two synchronized radio or radar signals.

**absolute error (elec)** an error expressed in dimensional numbers.

**absolute humidity (physics)** the weight of the water vapor found in a unit volume of air. In the metric system, it is the number of grams of water vapor in a cubic meter of air.

**absolute magnitude** (space) a measure of the brightness of a star equal to the magnitude the star would have at a distance of 10 parsecs from the observer. The stellar magnitude any meteor would have if placed in the observer's zenith at a height of 100 kilometers.

**absolute manometer** (space) a gas manometer whose calibration, which is the same for all ideal gases, can be calculated from the measurable physical constants of the instrument.

**absolute motion** (physics) (space) motion relative to a fixed point.

**absolute pressure** (physics) pressure measure with zero equal to a perfect vacuum.

**absolute pressure** (physics) the total pressure exerted by a gas or liquid. The absolute pressure of a vacuum is zero pounds per square inch, and of the atmosphere about 14.7 pounds per square-inch.

**absolute pressure pickup** (space) in telemetry, an end instrument which compares an unknown source of pressure with respect to zero pressure and translates this information into an analog quantity.

**absolute system of units** (space) a system of units in which a small number of units are chosen as fundamental and all other units are derived from them.

**absolute temperature scale** (physics) the scale of temperature whose zero is absolute zero and whose degree is the same size as a centigrade degree. On this scale, also called the Kelvin scale, water freezes at 273 degrees and boils at 373 degrees.

**absolute viscosity** (oil) the force that will move 1 sq cm of plane surface with a speed of 1 cm per second relative to another parallel plane surface from which it is separated by a layer of the liquid 1 cm thick. This viscosity is expressed in dynes per square centimeter, its units being the poise, which is equal to 1 dyne-second per square centimeter.

**absolute vorticity** (physics) (space) the vorticity of a fluid particle expressed with respect to an absolute coordinate system.

**absolute zero** (physics) a temperature at which bodies would possess no heat whatever. Since heat is the kinetic energy of the motions of the molecules of a substance, then at absolute zero a condition exists in which there is no motion of the molecules with respect to one another. Equal to  $-273$  degrees.

**absorptance, absorbtance** (physics) (space) the ratio of the radiant flux absorbed by a body to that which is incident upon it.

**absorption** (bio) the process by which water and dissolved substances pass into cells.

**absorption** (oil) the process by which one substance draws into itself another substance. Sponge-absorbing moisture, oil-absorbing natural gasoline from wet gas.

**absorption** (physics) the conversion of radiant energy into energy of a different form, e.g., the sun's energy radiated to the earth is absorbed (partially) and transformed into heat.

**absorption band** (physics) a range of wave lengths (or frequencies) in the electromagnetic spectrum within which radiant energy is absorbed by a substance.

**absorption cross section** (space) in radar, the ratio of the amount of power removed from a beam by the absorption of radio energy by a target to the power in the beam incident upon the target.

**absorption efficiency** (physics) the ratio of thermal energy retained by a solar absorber to the radiant energy directed to the absorber.

**absorption-emission pyrometer** (space) a thermometer for determining gas temperature from measurement of the radiation emitted by a calibrated reference source before and after this radiation has passed through and been partially absorbed by gas. Both measurements are made over the same wavelength interval.

**absorption gasoline** (oil) gasoline extracted from natural gas or refinery gas, for example, by contacting the gas with an oil and subsequently distilling the gasoline from the heavier oil.

**absorption line** (physics) a minute range of wavelength (or frequency) in the electromagnetic spectrum within which radiant energy is absorbed by the medium through which it is passing. Each line is associated with a particular mode of electronic excitation induced into the absorbing atoms by the incident radiation.

**absorption oil** (oil) an oil of high affinity for the light hydrocarbons, but containing few or none of the light compounds composing gasoline and natural gas.

**absorption plant** (oil) a plant for recovering the condensable portion of natural or plant gas, by absorbing these heavier hydrocarbons in an absorption oil (often under pressure), followed by separation and fractionation of the absorbed material.

**absorption spectra** (space) spectra which consist of dark lines, dark bands, or a dark continuum, placed over or above a bright background. They are caused by the absorption of light by a substance placed in front of a bright source.

**absorption spectrum** (physics) a continuous spectrum crossed by dark lines caused by the absorption of some wavelengths by relatively cool gas or transparent liquid through which the radiation passes before entering the spectroscope.

**absorption system** (oil) in gasoline manufacturing, a system of manufacturing casinghead gasoline, in which light vapors of casinghead gas are absorbed in heavy oil by being passed upwards through a continuous spray of oil in a tower-like apparatus.

**absorption tower** (oil) a tower or column which effect contact between a rising gas and a falling liquid so that part of the gas may be taken up by the liquid.

**absorptive index** (space) the imaginary part of the complex index of refraction of a medium. It represents the energy loss by absorption and has a nonzero value for all media which are not dielectrics.

**absorptive power** (space) the total flux of radiant energy absorbed in a unit area of absorbing substance; ex-

pressed, for example, in ergs per square centimeter per second or in watts per square centimeter.

**absorptivity** (space) the capacity of a material to absorb incident radiant energy, measured as the absorptance of a specimen of the material thick enough to be completely opaque and having an optically smooth surface.

**absque injuria** (law) without violation of a legal right.

**abstraction** (psy) the process of forming a general, rather than a particular, meaning.

**abstract of title** (law) a summary of the conveyances, transfers and other facts relied on as evidence of title, together with all such facts appearing of record which may impair the validity. It should contain a brief but complete history of the title.

**abulia** (psy) lack of the power to assert a will; no will; abnormal lack of zest for action.

**abulia obsession** (psy) the inability of an individual to get started on a job that awaits to be done.

**abyss** (ocean) a particularly deep part of the ocean, or any part below 300 fathoms.

**abyssal** (oil) deep within the earth, generally signifying depth in miles. Deep in oceans or lakes, beyond depth of light penetration, commonly referring to depths of 1000 feet or more in lakes and 6000 feet or more in oceans.

**abyssopelagic** (ocean) pertaining to the portion of the ocean which lies below depths of 2000 fathoms (3700 meters).

**accelerated aging test** (physics) a procedure whereby a product may be subjected to intensified but controlled conditions of heat, pressure, radiation or other variables to produce, in a short time, the effects of long-time storage or use under normal conditions.

**accelerating premium** (labor) a form of incentive wage system which provides increasingly larger percentage premiums at progressively higher levels of production.

**acceleration** (law) the shortening of the time for the performance of a contract or the payment of a note by the operation of some provision in the contract or note itself.

**acceleration** (physics) the rate at which velocity is changing with time. Acceleration equals the change in velocity divided by the time of the change.

**acceleration** (psy) increasing rate of speed. When used as description of learning curves, negative acceleration means a diminishing rate of progress and positive acceleration an increasing rate.

**acceleration blowout** (space) inadvertent loss of combustion in a turbojet engine incident to an attempted acceleration and an overrich fuel mixture.

**acceleration clause** (bus) in a loan contract, the clause requiring the immediate payment of an unpaid balance upon breach of contract.

**acceleration feedback** (space) a sensing system in which acceleration of a body, rather than velocity or position, is used as a reference or signal source for a control system.

**acceleration of gravity** (physics) the acceleration of a freely falling object in the absence of air resistance or other source of friction.

**acceleration principle** (bus) the notion that there is a certain normal ratio (sometimes called stock-flow relationship) between the stock of real capital in existence (measured in terms of money value) and the level of national income or output. Therefore, the rate of addition to the stock capital will be a function of the rate of increase of national income. It follows from this relationship that a decreasing rate of increase results in an absolute decrease of additions to the stock of capital.

**acceleration switching valve** (space) a transfer valve in which the spool velocity is proportional to the error signal.

**accelerator** (physics) the technical name for an atom-smashing machine, which accelerates parts of atoms to ex-

remely high speeds (near the speed of light) so that they can hit other atoms with great force.

**accelerator** (space) in nuclear science, a device for imparting large kinetic energy to charged particles, such as electrons, protons, deuterons, and helium ions.

**accelerometer** (space) a device used to measure acceleration, which when integrated will yield velocities or displacements. Accelerometers may sense angular or linear accelerations and usually have a high natural frequency.

**accelerometer matching** (space) a method of aligning two remote reference systems by comparing the outputs of identically oriented accelerometers while the two systems are experiencing the same motions.

**accentuation** (psy) the process by which a mild, hereditary weakness may become an important factor in a neurosis.

**acceptance** (law) the act whereby the drawee of a bill of exchange engages to pay. Also applies to the bill itself after acceptance.

**acceptance number** (stat) the largest number of defectives in the sample or samples under consideration that will not prevent acceptance of the inspection lot.

**accepted depth** (ocean) the best possible determination of the true depth of each Nansen bottle at the time of reversal.

**acceptor** (law) the drawee of a bill of exchange after he has agreed to pay for it.

**acceptor** (space) in transistors, the P-type semiconductor, the electrode containing trivalent impurities (boron, gallium, or indium) to increase the number of holes which can accept electrons.

**access holes** (physics) openings (often called ports) in the outer case around an atomic furnace. They permit material to be inserted inside the furnace, where powerful rays from the splitting atoms will strike it. They are also used to let rays outside the furnace for experiments.

**accession** (law) generally used to signify

the acquisition of property by its incorporation or union with other property.

**accessory fruit (bio)** an enlarged stem receptacle bearing numerous hard scattered fruits, such as the strawberry.

**accessory sensory apparatus (psy)** structures associated with the sense organs which aid in the efficient reception of sensory impressions.

**access time (computer)** the time it takes a computer to locate a piece of data or an instruction in the memory or storage section and transfer it to the arithmetic unit where the required computations are performed.

**access-to-plant adjustment (labor)** a collective bargaining agreement provision guaranteeing entry to plants to non-employee union representatives.

**accident rate (labor)** a measure of frequency of industrial injuries, the standard formula being the total number of disabling injuries per one million employee-hours worked.

**acclimatization (space)** the functional and structural adjustments of the body when subjected to a change in climatic environment.

**accommodation (physics)** the ability of the eye to adjust its focusing power to the distance of the object viewed.

**accommodation coefficient (space)** the ratio of the average energy actually transferred between a surface and impinging gas molecules which are scattered by the surface to the average energy which would theoretically be transferred if the impinging molecules reached complete thermal equilibrium with the surface before leaving the surface.

**accommodation endorser (law)** one who indorses a commercial paper without compensation for the purpose of going surety for another.

**accommodation paper (law)** normally a note or other form of negotiable instrument made to enable the payee to obtain credit. However, it has no validity until it passes into the hands of a holder for value.

**accord (law)** a mutual agreement between debtor and creditor as to the allowance or disallowance of their respective claims and as to the balance struck upon the final adjustment of accounts and demands on both sides.

**accord and satisfaction (law)** the satisfaction of a claim or dispute by an executed agreement, giving the aggrieved party something different in amount or value from the thing claimed.

**accretion (ocean)** natural accretion is the gradual build-up of land over a long period of time solely by the action of the forces of nature, on a beach by deposition of water or air-borne material.

**accretion (physics) (med)** growth by external addition; accumulation.

**accretionary limestone (ocean)** a limestone which has formed in situ by slow accumulation of organic remains such as coral or shells.

**accrued interest (bus)** interest accumulated on a bond since the last interest payment was made.

**accumulation (ocean)** in glaciology, the quantity of snow or other solid form of water added to a glacier or snowfield by alimention.

**accumulator (computer)** in computer technology, a device which stores a number and upon receipt of another number, adds it to the number already stored and then stores the sum.

**accumulator (oil)** a vessel for the temporary storage of a gas or liquid; usually used for collecting sufficient material for a continuous charge to some refining process.

**accumulator (space)** a device or apparatus that accumulates or stores up, as a contrivance in a hydraulic system that stores fluid under pressure.

**accumulator still (oil)** a shell still for the purpose of removing moisture and light products from the feed to a pipe still. It also acts as a feed reservoir.

**accuracy in measurement (elec)** the degree of correctness with which a method of measuring yields the "true" value of a measured quantity.

**accuracy** (stat) refers to the deviation of an estimate upon the universe or true value. It is not the same as precision. It may also mean bias. Refers in a general way to freedom from error.

**accustomization** (space) the process of learning the technique of living with a minimum of discomfort in an extreme or new environment.

**acetabulum** (med) a cup-shaped cavity in the hip bone.

**acetone** (med) a chemical substance found in the urine in wasting conditions like cancer, in diabetes, in prolonged vomiting, and in acute fevers, especially in children.

**acetone** (oil) an inflammable liquid ( $\text{CH}_3\text{COCH}_3$ ) compound. It is used widely in industry as a solvent for many organic substances, and in paint and varnish removers.

**acetonuria** (med) excretion of acetone in the urine.

**acetylcholine** (bio) a powerful chemical substance, released at the end of a motor nerve, causing a muscle to contract.

**achene** (bio) a dry, indehiscent fruit in which the ovary wall separates from the seed, as in the sunflower.

**achievement** (psy) the amount of learning actually completed.

**achievement quotient** (psy) a personal rating produced by doing certain psychological tests; a rating made in industry of how well an individual does his work in comparison with other employees. It differs from an intelligent quotient in that tests are used not to determine mental power, but only the application of ability to tasks.

**achilles tendon** (med) the tendon attached to the heel bone.

**achondroplasia** (med) the name of a form of dwarfing in which the arms and legs are abnormally short and the head large.

**achorion** (med) the name of the micro-organism causing favus or honeycomb ringworm.

**achromatic** (physics) free from color; having no color fringe; a term applied to lenses.

**achromatic spindle** (bio) a spindle formed in the process of nuclear division and composed of nonstaining substances.

**achylia gastrica** (med) the complete absence of ferments and of hydrochloric acid from the gastric juice so that in this condition the food is passed from the stomach in a state of incomplete digestion.

**acicular ice** (ocean) fresh water ice consisting of numerous long crystals and hollow tubes having variable form, layered arrangement, and a content of air bubbles.

**acid** (chem) a member of an important and fundamental category of chemical substances characterized by having available reactive hydrogen and requiring an alkali to neutralize it. It usually has a sour, biting, and tart taste, like vinegar.

**acid** [free acid] (oil) the uncombined acid content of a body, or the portion of the acid whose active hydrogen atom has not been replaced on mixing the acid with a second substance.

**acid** (physics) a compound of hydrogen in which all or a part of the hydrogen may be replaced by a metal or a basic radical, forming a new compound.

**acid blowcase** (oil) a small tank constructed of material to withstand corrosion and pressure, from which the sulfuric acid used in process treating is blown by compressed air to the agitator. When the tank is of cast iron, it is usually termed an "egg."

**acid concentrator** (oil) a vessel in which hydrolyzed acid is reformed by heating and evaporation of water, either by a hot gas stream or, in some places, by distillation of the water under partial vacuum.

**acid fixing bath** (photo) a solution which fixes, or makes permanent, on film or paper the image brought out in development. Consists of sodium hyposulphite with an acid (of various kinds) added. Often referred to as hypo.

**acid-heat test** (oil) a test in which the temperature rise resulting from the addition of commercial sulfuric acid

to a petroleum distillate under controlled conditions is measured.

**acidic (oil)** describing igneous rocks having silica content greater than two-thirds of the total constituents (as rhyolite, granite, etc.).

**acidize (oil)** to put acid in a well to dissolve limestone in a producing zone so that passages are formed through which oil or gas can enter the well bore.

**acidizing (oil)** the practice of applying acids to the wells to remove any material which obstructs the entrance of fluids.

**acidosis (med)** a condition in which there is either a production in the body of two abnormal acids, oxybutyric and aceto-acetic acids, or a diminution in the alkali reserve of the blood.

**acid-recovery plant (oil)** an auxiliary department of certain refineries in which sludge acid is separated into acid oil, tar and weak sulfuric acid, with provision for reconcentrating the latter.

**acid sludge (oil)** the residue left after treating petroleum oil with sulfuric acid for the removal of impurities. It is black, viscous substance containing the spent acid and the impurities which the acid has separated from the oil.

**acid treatment (oil)** an oil-refining process in which unfinished petroleum products, such as gasoline, kerosine, diesel fuel, and lubricating stocks are contacted with sulfuric acid to improve color, odor, and other properties.

**acknowledgment (law)** declaring or acknowledging before a competent officer that an executed instrument is one's own act or deed.

**acclinic line (physics)** the line through those points on the earth's surface at which magnetic dip is zero.

**acne (bio)** a condition in which pimples appear in groups on the face and neck.

**acoustic (physics)** pertaining to sound waves.

**acoustical capacitance (elec)** in an acoustical (sound) system, the poten-

tial energy associated with compression of a gas.

**acoustical impedance (elec)** in an acoustical (sound) system, the value of the impedance of a portion of a concentrated system is obtained by multiplying the flux (volume x area) and the pressure difference driving that portion.

**acoustical inertance (space)** in an acoustical (sound) system, the inertia energy, the acoustical element which opposes a change in volume current.

**acoustical reactance (space)** in an acoustical (sound) system, that part of the impedance responsible for dissipation of energy.

**acoustical system (space)** a system adapted for the transmission of sound and consisting of one or all of the following acoustical elements: acoustical resistance, inertance, capacitance.

**acoustic delay line (space)** a device used in a communication link or a computing memory in which the signal is delayed by the propagation of a sound wave.

**acoustic dispersion (space)** the change of the speed of sound with frequency.

**acoustic excitation (space)** the process of inducing vibration in a structure by exposure to sound waves.

**acoustic generator (space)** a transducer which converts electric, mechanical, or other forms of energy into sound.

**acoustic Mach meter (space)** a device which obtains data on sound propagation for the calculation of Mach number.

**acoustic nerve (psy)** the nerve which conveys the perception of sound to the brain.

**acoustic radiation pressure (space)** a unidirectional, steady-state pressure exerted upon a surface exposure to a sound wave.

**acoustic refraction (space)** the process by which the direction of sound propagation is changed due to spatial variation in the speed of sound in the medium.

**acoustics (physics)** the science of sound.

**acoustic speed** (space) the speed at which sound waves and small pressure disturbances are propagated in a fluid.

**acoustic streaming** (space) unidirectional flow currents in a fluid that are due to the presence of sound waves.

**acquired characteristics** (psy) characteristics of activity that have been learned, as contrasted with inherited characteristics.

**acquired immunity** (bio) resistance to a specific disease induced by vaccination or serum injection.

**acquisition** (bus) the process by which the whole or a part of a company becomes part of another company; includes mergers, but may also include acquisitions of subsidiaries, divisions, plants, or smaller assets of another company.

**acquisition** (space) the process of locating the orbit of a satellite or trajectory of a space probe so that tracking or telemetry data can be gathered. The process of pointing an antenna or telescope so that it is properly oriented to allow gathering of tracking or telemetry data from a satellite or space probe.

**acquisition radar** (space) a radar used for early warning and identification of targets at long range. The range and position data are in turn passed on to fire control radars or to missile guidance radars.

**acre-foot** (ocean) the volume of water required to cover one acre to a depth of one foot, hence 43,560 cubic feet; a convenient unit for measuring irrigation water, runoff volume and reservoir capacity.

**acromion** (med) the end of the spine of the shoulder blade.

**Across-the-board Adjustment** (labor) change in pay rates made for all employees in a plant or a particular group.

**ACTH** (bio) adrenocorticotrophic hormone; a hormone of the anterior lobe of the pituitary which influences the development and activity of the adrenal cortex.

**actinic** (space) pertaining to electromagnetic radiation capable of initiating photochemical reactions as in photography or in fading of pigments.

**actinometer** (space) the general name for any instrument used to measure the intensity of radiant energy, particularly that of the sun.

**actinometry** (space) the science of measurement of radiant energy, particularly that of the sun, in its thermal, chemical, and luminous aspects.

**actinotrocha** (ocean) the planktonic larva of the bottom dwelling worm.

**act in pais** (law) a judicial or other act performed out of court.

**action** (law) a suit at law.

**actionable** (law) remedial by action at law.

**action, common law** (law) the formal demand of one's rights from another person or party made and insisted on in a court of justice.

**action ex contractu** (law) an action arising out of the breach of a contract.

**action ex delicto** (law) an action at law to recover damages for the breach of duty existing by reason of a general law. An action to recover damages for an injury caused by the negligent use of an automobile is an ex delicto action.

**active** (space) transmitting a signal.

**active element** (computer) in a computer, a circuit or device which receives energy from some source other than the signal input.

**active factor** (psy) the center of a neurotic state, the one force or element that is most formative in the neurotic condition.

**active filter** (space) in electronics, a filter used for smoothing data.

**active glacier** (ocean) a glacier which has an accumulation area, in contrast to a stagnant glacier.

**active homing** (space) the homing of an aerodynamic or space vehicle in which energy waves (radar) are transmitted from the vehicle to the target and reflected back to the vehicle to direct the vehicle toward the target.



**active immunity** (bio) resistance to disease introduced by the use of vaccines with resultant antibody formation against the causative agent of the disease.

**active jamming** (space) the intentional, deliberate radiation or reradiation of electromagnetic energy with the object of impairing the use of a specific band of frequencies.

**active leg** (space) an electrical element within a transducer which changes its electrical characteristics as a function of the application of a stimulus.

**active tracking system** (space) a system which requires addition of a transponder, or transmitter, on board a vehicle to repeat, transmit, or retransmit information to the tracking equipment.

**active transducer** (space) a transducer whose output is dependent upon sources of power, apart from that supplied by any of the actuating signals, the power of which is controlled by one or more of these signals.

**activity** (psy) the subject matter of psychology; anything that the individual does, thinks, or feels.

**activity coefficient** (physics) a measure of the deviation from ideal solution behavior. It is a term used to make Raoult's law apply to non-ideal solutions of a solute (gas or liquid) in a solvent (stationary phase).

**act of God** (law) an accident resulting from an irresistible physical force, such as an earthquake or a tornado.

**actual M.A.** (physics) the mechanical advantage a machine is found to have when friction and other losses are taken into account. Actual M.A. is the ratio of the resistance force to the actual effort force.

**actuating signal ratio** (space) the frequency of the actuating signal for a control system to the reference input.

**actuating system** (space) a mechanical system that supplies and transmits energy for the operation of other mechanisms or systems.

**actuation process** (psy) the means by which one's plans and purposes are put

into action even before the fullest confidence in one's ability to carry them out is achieved. As this is done, a sense of more power develops. The actuation process is especially useful in liberating mental imagery created by advanced effort, since it helps to make concrete and tangible the subjective design for action one has conceived.

**acuity** (psy) the sensory ability to discriminate fine differences in stimuli.

**acute** (med) showing severe symptoms and a rapid development. Sharp.

**acute disease** (med) a disease is said to be acute in contradistinction to chronic when it comes on rapidly and produces death rapidly, or goes on to speedy recovery, e.g. acute bronchitis.

**acylation** (chem) a process in which an acyl group,  $\text{RCO}-$ , is introduced into a molecule.

**adaptability** (psy) the habit or ability to find and use opportunities in the environment and follow not the lines of least resistance but those of greatest opportunity.

**adaptation** (bio) adjustment of structures or modes of living (including methods of reproduction) that better fit an organism to its environment, thereby favoring successful competition with other organisms and survival.

**adaptation** (bio) modification to perform a specialized activity.

**adapter** (oil) a device to provide connection between two other points.

**adapter** (photo) a term applied to any of a number of photographic accessories. It may be a mount to hold a supplementary lens or filter. It may be a device to permit the use of Polaroid film in a press camera.

**adapter skirt** (space) a flange or extension of a space vehicle stage or section that provides a ready means for fitting some object to the stage or section.

**adaptive control system** (space) a control system which continuously monitors the dynamic response of the controlled system and automatically adjusts critical system parameter to satisfy preassigned response criteria,