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DICTIONARY OF
SCIENTIFIC AND
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Fifth Edition

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**McGraw-Hill
Dictionary of
Scientific and
Technical
Terms**

Fifth Edition

Sybil P. Parker
Editor in Chief

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tube of the recoilless type and a very light mount. { ri'koi'les 'rif-əl }

recoil mechanism [ORD] A hydraulic-, pneumatic-, or spring-type shock absorber that decreases the energy of the recoil gradually and so avoids violent movement of the gun. { 'rē,kōil ,mek-ə,niz-əm }

recoil milking [NUCLEO] A technique for detecting transmutation recoil atoms knocked out of a target by heavy-ion bombardment, in which the atoms come to rest in a stream of helium or other gas which carries them through an orifice to a rough vacuum where they are adsorbed on a surface and their radioactivity detected. { 'rē,kōil ,milk-ŋ }

recoil oil [MATER] A neutral, constant-viscosity oil used in hypropneumatic and hydrospring recoil systems. { 'rē,kōil ,ōil }

recoil particle [PHYS] A particle that has been set into motion by a collision or by a process involving the ejection of another particle. { 'rē,kōil ,pārd-ə-kəl }

recoil pit [ORD] Pit dug near the breech of a gun to provide space for the breech when it moves backward during recoil. { 'rē,kōil ,pit }

recoil velocity [ORD] Velocity in recoil of the recoiling parts of a gun. { 'rē,kōil və,lūs-əd-ē }

recombinant [GEN] Any new cell, individual, or molecule that is produced in the laboratory by recombinant deoxyribonucleic acid technology or that arises naturally as a result of recombination. { rē'kām-bə'nənt }

recombinant technology [GEN] 1. In genetic engineering, laboratory techniques used to join deoxyribonucleic acid (DNA) from different sources to produce novel DNA. Also known as gene splicing. 2. In genetic engineering, laboratory techniques used to join ribonucleic acid (RNA) from different sources to produce novel RNA. { ri'kām-bə'nənt tek'näl-ə-jē }

recombination [GEN] 1. The occurrence of gene combinations in the progeny that differ from those of the parents as a result of independent assortment, linkage, and crossing-over. 2. The production of genetic information in which there are elements of one line of descent replaced by those of another line, or additional elements. [PHYS] The combination and resultant neutralization of particles or objects having unlike charges, such as a hole and an electron or a positive ion and a negative ion. { rē'kām-bə'nā-shən }

recombination coefficient [ELECTR] The rate of recombination of positive ions with electrons or negative ions in a gas, per unit volume, divided by the product of the number of positive ions per unit volume and the number of electrons or negative ions per unit volume. { rē'kām-bə'nā-shən ,kōi'fīsh-ənt }

recombination electroluminescence See injection electroluminescence. { rē'kām-bə'nā-shən i'lek-trō,lū-mā'nes-əns }

recombination energy [PHYS] The energy released when two oppositely charged portions of an atom or molecule rejoin to form a neutral atom or molecule. { rē'kām-bə'nā-shən ,en-ə-rjē }

recombination frequency [GEN] The number of recombinants divided by the total number of progeny. { rē'kām-bə'nā-shən ,frē'kwən-sē }

recombination mosaic [GEN] A mosaic produced as the result of somatic crossing-over. { rē'kām-bə'nā-shən mō,zā'ik }

recombination radiation [SOLID STATE] The radiation emitted in semiconductors when electrons in the conduction band recombine with holes in the valence band. { rē'kām-bə'nā-shən ,rād-ē ,ū-shən }

recombination repair [MOL BIO] A repair mechanism involving exchange of correct for incorrect segments between two damaged deoxyribonucleic acid molecules. { rē'kām-bə'nā-shən ri ,per }

recombination velocity [ELECTR] On a semiconductor surface, the ratio of the normal component of the electron (or hole) current density at the surface to the excess electron (or hole)

solidated feldspathic residue that has been reworked and decomposed so slightly that upon cementation the rock resembles granite except that its grain is less even and it contains a greater percentage of quartz. Also known as reconstructed granite. { ,rē'kām'pōzd 'gran-ət }

recomposed rock [PETR] A rock produced in place by the cementation of the fragmental products of surface weathering; for example, a recomposed granite. { ,rē'kām'pōzd 'rāk }

recomputed point of turn [NAV] An altered dead-reckoning position of an aircraft at a turning point, determined after wind has been established by drift observations made before and after the turn. { 'rē'kəm ,pyūd-əd ,pōint əv 'tərn }

recon [GEN] The smallest deoxyribonucleic acid unit capable of recombination. { 'rē,kān }

reconditioned carrier reception [ELECTR] Method of reception in which the carrier is separated from the sidebands to eliminate amplitude variations and noise, and is then added at an increased level to the sideband, to obtain a relatively undistorted output. { ,rē'kən'dish-ənd 'kar-ē-ər ri ,sep-shən }

reconditioning [ENG] Restoration of an object to a good condition. { ,rē'kən'dish-ə-nŋ }

reconnaissance [ENG] A mission to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area. [ORD] A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy. { ri'kän-ə'səns }

reconnaissance drone [AERO ENG] An uncrewed aircraft guided by remote control, with photographic or electronic equipment for providing information about an enemy or potential enemy. { ri'kän-ə'səns ,drōn }

reconnaissance map [MAP] A map based on the information obtained in a reconnaissance survey. { ri'kän-ə'səns ,māp }

reconnaissance spacecraft [AERO ENG] A satellite put into orbit about the earth and containing electronic equipment designed to pick up and transmit back to earth information pertaining to activities such as military. { ri'kän-ə'səns 'spās ,kraft }

reconnaissance survey [ENG] A preliminary survey, usually executed rapidly and at relatively low cost, prior to mapping in detail and with greater precision. { ri'kän-ə'səns ,sər ,vā }

reconnection [ASTRON] The rejoining of solar magnetic field lines that have been severed at a neutral region. { ,rē'kō'nek-shən }

reconstituted mica [MATER] Mica sheets or shaped objects made by breaking up scrap natural mica, combining with a binder, and pressing into forms suitable for use as electrical insulating material. { rē'kän'st-üt-əd 'mī-kā }

reconstitution [COMPUT SCI] The conversion of tokens back to the keywords they represent in a programming language, before generation of the output of an interpreted program. [GEOL] The formation of new chemicals, minerals, or structures under the influence of metamorphism. { rē'kän'st-üt-shən }

reconstructed coal [MATER] Coal formed from crushed or powdered, briquetted lignite or coal, waterproofed with a coating of pitch. { ,rē'kən'strək-təd 'kōl }

reconstructed granite See recomposed granite. { ,rē'kən'strək-təd 'gran-ət }

reconstructed stone [LAP] A gem material made by the fusing or sintering of small particles of the genuine stone. { ,rē'kən'strək-təd 'stōn }

reconstruction [SOLID STATE] A process in which atoms at the surface of a solid displace and form bands different from those existing in the bulk solid. { ,rē'kən'strək-shən }

reconstructive processing [INORG CHEM] The spinning of an inorganic compound of an organic support or binder subsequently removed by oxidation or volatilization to form an inorganic polymer. { ,rē'kən'strək-tiv 'prā ,ses-ŋ }

reconstructive transformation [CRYSTAL] A type of crystal

record changer [ENG ACOUS] A record player that changes the number of records automatically in succession. { ,rēk-əŋ-j-ər }

record density See bit density; character density. { ,rēk-əŋ-sād-ē }

recorder See recording instrument. { ri'kōrd-ər }

record gap [COMPUT SCI] An area in a storage medium as magnetic tape or disk, which is devoid of information delimits records, and, on tape, allows the tape to stop between records without loss of data. Also known as record gap (IRG). { 'rēk-ərd ,gāp }

record head See recording head. { ri'kōrd ,hed }

recording [SCI TECH] 1. Any process for preserving sounds, data, or other information for future reference, such as disk recording, facsimile recording, magnetic recording, magnetic tape or wire recording, and photographic recording. 2. The end product of a recording process: the recorded magnetic tape, disk, or record sheet. Also known as record. { ri'kōrd-ŋ }

recording balance [ANALY CHEM] An analytical instrument equipped to record weight results by electromagnetic or motor-driven accessories. { ri'kōrd-ŋ ,bal-əns }

recording-completing trunk [ELEC] Trunk for extending connection from a local line to a toll operator, used for recording the call and for completing the toll connection. { ri'kām'plēd-ŋ ,trāŋk }

recording density [COMPUT SCI] The amount of data that can be stored in a unit length of magnetic tape, usually expressed in bits per inch or characters per inch. { ri'kōrd-ŋ ,den-səd-ē }

recording head [ELECTR] A magnetic head used in recording. Also known as record head. [ENG ACOUS] A device for recording. { ri'kōrd-ŋ ,hed }

recording instrument [ENG] An instrument that records graphic or acoustic record of one or more variable quantities. Also known as recorder. { ri'kōrd-ŋ ,in-strə-mənt }

recording lamp [ELECTR] A lamp whose intensity varies at an audio-frequency rate, for exposing variable sound tracks on motion picture film and for exposing film in photographic facsimile recording. { ri'kōrd-ŋ ,lāmp }

recording level [ELECTR] Amplifier output level required to secure a satisfactory recording. { ri'kōrd-ŋ ,lev-əl }

recording noise [ELECTR] Noise that is introduced into a recording process. { ri'kōrd-ŋ ,nōiz }

recording optical tracking instrument [ENG] Optically operated instrument used for recording data in connection with missile guidance. { ri'kōrd-ŋ ,ōptik-əl ,trak-ŋ ,in-strə-mənt }

recording rain gage [ENG] A rain gage which automatically records the amount of precipitation collected, as a function of time. Also known as pluviograph. { ri'kōrd-ŋ ,rān ,gāj } See picture element. { ri'kōrd-ŋ ,spōt }

recording storage tube [ELECTR] Type of cathode ray tube in which the electric equivalent of an image can be stored as electrostatic charge pattern on a storage surface; the image is visualized by a visual display, but the stored information can be read out at a later time as an electric output signal. { ri'kōrd-ŋ ,stōr-əj ,tūb }

recording thermometer See thermograph. { ,rēk-ərd-ŋ ,tərm-ə-mi-ter } See thermograph. { ri'kōrd-ŋ ,tərm-ə-mi-ter }

recording trunk [ELEC] Trunk extending from a local office or private branch exchange to a toll office, which is used only for communications with toll operators and not for recording toll connections. { ri'kōrd-ŋ ,trāŋk }

record layout [COMPUT SCI] A form showing how a record is positioned within a record, usually with information about the record. { 'rēk-ərd ,lā ,aüt }

record length [COMPUT SCI] The number of characters required for all the information in a record. { 'rēk-ərd ,lenth }

record locking [COMPUT SCI] Action of a computer program that makes a record that is being processed by one user unavailable to other users, to prevent more than one user from attempting to update the same information simultaneously.