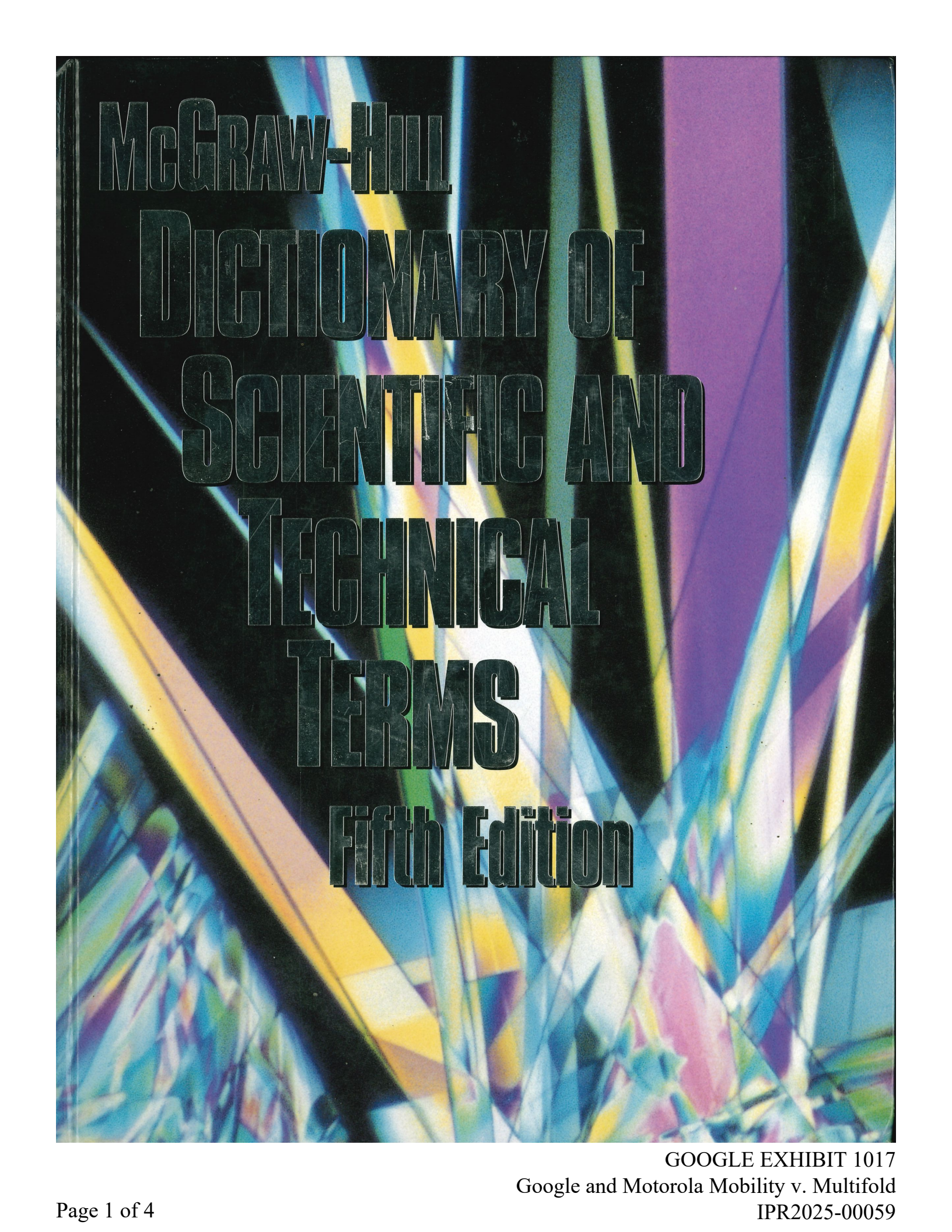




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**DICTIONARY OF
SCIENTIFIC AND
TECHNICAL
TERMS**

Fifth Edition

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Dictionary of

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Terms

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Sybil P. Parker

Editor in Chief

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On the cover: Photomicrograph of crystals of vitamin B₁.
(Dennis Kunkel, University of Hawaii)

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seismic event [GEOPHYS] An earthquake or a somewhat similar transient earth motion caused by an explosion. { 'sīz-mik i,vent }

seismic exploration [ENG] The exploration for economic deposits by using seismic techniques, usually involving explosions, to map subsurface structures. { 'sīz-mik ,ek-splə'rā-shən }

seismic gradient [GEOPHYS] The variation of seismic velocity with distance in a specified direction. Also known as velocity gradient. { 'sīz-mik 'grād-ē-ənt }

seismic hazard [GEOPHYS] Any physical phenomenon, such as ground shaking or ground failure, that is associated with an earthquake and that may produce adverse effects on human activities. { 'sīz-mik 'haz-ərd }

seismic intensity [GEOPHYS] The average rate of flow of seismic-wave energy through a unit section perpendicular to the direction of propagation. { 'sīz-mik in'ten-səd-ē }

seismicity [GEOPHYS] The phenomena of earth movements. Also known as seismic activity. { 'sīz-mis-əd-ē }

seismic load [ENG] The force on a structure caused by acceleration induced on its mass by an earthquake. { 'sīz-mik 'lōd }

seismic map [GEOPHYS] A contour map constructed from seismic data, the z coordinate of which could be either time or depth. { 'sīz-mik 'māp }

seismic profiler [ENG] A continuous seismic reflection system used to study the structure beneath the sea floor to depths of 10,000 feet (3000 meters) or more, using a rotating drum to record reflections. { 'sīz-mik 'prō-fī-lər }

seismic prospecting [GEOPHYS] Geophysical prospecting based on the analysis of elastic waves generated in the earth by artificial means. { 'sīz-mik 'präs-pek-tīŋ }

seismic ray [GEOL] The path along which seismic energy travels. { 'sīz-mik 'rā }

seismic reflector [GEOPHYS] A subsurface profile that is generated by seismic data and indicates a distinctive type of sediment geometry produced by sea-level changes; used to correlate stratigraphic sequences. { 'sīz-mik ri'flek-tər }

seismic risk [GEOPHYS] 1. An assortment of earthquake effects that range from ground shaking, surface faulting, and landsliding to economic loss and casualties. 2. The probability that social or economic consequences of earthquakes will equal or exceed specified values at a site, at several sites, or in an area, during a specified exposure time. { 'sīz-mik 'risk }

seismic sea wave See tsunami. { 'sīz-mik 'sē ,wāv }

seismic shooting [ENG] A method of geophysical prospecting in which elastic waves are produced in the earth by the firing of explosives. { 'sīz-mik 'shūd-īŋ }

seismic stratigraphy [GEOL] A branch of stratigraphy in which sediments and sedimentary rocks are interpreted in a geometrical context from seismic reflectors. { 'sīz-mik strə'tīg-rə-fē }

seismic survey See reflection survey. { 'sīz-mik 'sər,vā }

seismic tomography [GEOPHYS] The estimation of seismic wave velocities throughout a region of interest from the travel times of either transmitted or reflected waves, generally through numerical models and iterative procedures. { 'sīz,mik tō'māg-rə-fē }

seismic velocity [GEOPHYS] The rate of propagation of an elastic wave, usually measured in kilometers per second. { 'sīz-mik və'lās-əd-ē }

seismic vertical [GEOL] 1. The point on the earth's surface directly over the point within the earth from which an earthquake impulse originates. 2. The vertical line between the surface point and the point of origin. { 'sīz-mik 'vərd-ə-kəl }

seismochronograph [ENG] A chronograph for determining the time at which an earthquake shock appears. { 'sīz-mə'krän-ə,grāf }

seismogram [ENG] The record made by a seismograph. { 'sīz-mə,grām }

seismograph [ENG] An instrument that records vibrations in the earth, especially earthquakes. { 'sīz-mə,grāf }

seismology [GEOPHYS] 1. The study of earthquakes. 2. The science of strain-wave propagation in the earth. { 'sīz-mäl-ə-jē }

seismometer [ENG] An instrument that detects movements in the earth. { 'sīz-mäm-əd-ər }

seismoscope [ENG] An instrument for recording only the

occurrence or time of occurrence (not the magnitude) of an earthquake. { 'sīz-mə,skōp }

Seisonacea [INV ZOO] A monofamiliar order of the class Rotifera characterized by an elongated jointed body with a small head, a long slender neck region, a thick fusiform trunk, and an elongated foot terminating in a perforated disk. { ,sī'sə'nā-shə }

Seisonidea [INV ZOO] The equivalent name for Seisonacea. { ,sī'sə'nīd-ē-ə }

seistan [METEOROL] A strong wind of monsoon origin which blows from between the northwest and north-northwest and sets in about the end of May or early June in the historic Seistan district of eastern Iran and Afghanistan; it continues almost without cessation until about the end of September; because of its duration it is known as the wind of 120 days (bad-i-sad-o-bistroz). { 'sā,stān }

Seitz filter [MICROBIO] A bacterial filter made of asbestos and used to sterilize solutions without the use of heat. { 'sīz ,fī-l-tər }

seizing [ENG] Abrasive damage to a metal surface caused when the surface is rubbed by another metal surface. [MET] Welding a workpiece to a die member under the combined forces of pressure and sliding friction. { 'sēz-īŋ }

seizure [MED] 1. The sudden onset or recurrence of a disease or an attack. 2. Specifically, an epileptic attack, fit, or convulsion. { 'sēz-zhər }

Sejournet process [MET] During hot extrusion, the lubrication and insulation of a metal billet with molten glass. Also known as Ugine Sejournet process. { sə'zhūr'nā ,prə'səs }

sejunction water [HYD] Capillary water bounded by menisci, and in static equilibrium in the soil above the capillary fringe. { sə'jəŋk-shən ,wōd-ər }

sekaninite [MINERAL] A violet variety of cordierite in which magnesium is largely replaced by ferrous iron. Also known as iron cordierite. { sə'kän-ən-ə,īt }

Selachii [VERT ZOO] An order of elasmobranchs including all fossil sharks, except Cladoselachii and Pleuracanthoidi. { sə'lāk-ē,ī }

Selaginellales [BOT] The plant order of small club mosses, containing one living genus, *Selaginella*; distinguished from other lycopods in being heterosporous and in having a ligule borne on the upper base of the leaf. { sə,laj-ə-nə'lāl-ēz }

selagite [PETR] A mica trachyte characterized by abundant tabular biotite crystals in a holocrystalline groundmass of orthoclase and diopside, and possibly quartz and olivine. { 'sel-ə,jīt }

selatan [METEOROL] Strong, dry, southerly winds of the southeast monsoon in the Netherlands East Indies and the Celebes. { sə'lā,tān }

select [COMPUT SCI] 1. To choose a needed subroutine from a file of subroutines. 2. To take one alternative if the report on a condition is of one state, and another alternative if the report on the condition is of another state. 3. To pull from a mass of data certain items that require special attention; selection of individual cards is accomplished automatically by either the sorter or collator, according to the type of selection. { si'lekt }

select bit [COMPUT SCI] The bit (or bits) in an input/output instruction word which selects the function of a specified device. Also known as subdevice bit. { si'lekt ,bit }

selected areas See Kapetyn selected areas. { si'lekt-əd 'er-əz }

selected mine [ORD] A controlled underwater mine which has been connected, through the selector assembly, to the control equipment at the shore station; it is exclusive of all other mines in its group and may be fired, tested, or disarmed independently of the remainder of the group. { si'lekt-əd 'mīn }

selected time [IND ENG] An observed actual time value for an element, measured by time study, which is identified as being the most representative of the situation observed. { si'lekt-əd 'tīm }

selecting circuit [ELEC] A simple switching circuit that receives the identity (the address) of a particular item and selects that item from among a number of similar ones. { si'lekt-īŋ ,sər-kət }

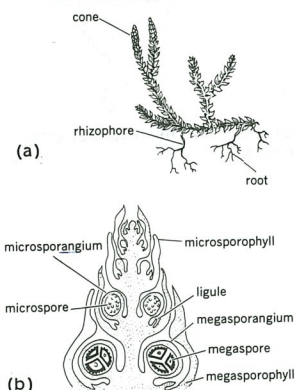
selection [COMMUN] The process of addressing a call to a specific station in a selective calling system. [GEN] Any natural or artificial process which favors the survival and propagation of individuals of a given genotype in a population. { si'lek-shən }

SELACHII



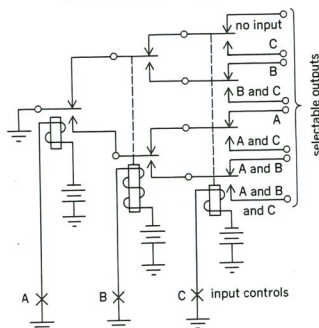
Primitive selachian *Hybodus hauffianus*, a Mesozoic shark.

SELAGINELLALES



Selaginella, or small club moss. (a) Plant with creeping, dichotomous stems bearing numerous, tiny leaves and leafless branches, or rhizophores. (b) Diagram of a longitudinal section through a cone.

SELECTING CIRCUIT



Circuit diagram of a simple relay selecting circuit. Three relays (A, B, C) are used by the circuit to select one of eight outputs according to the combination in which the three relays are operated or not operated.