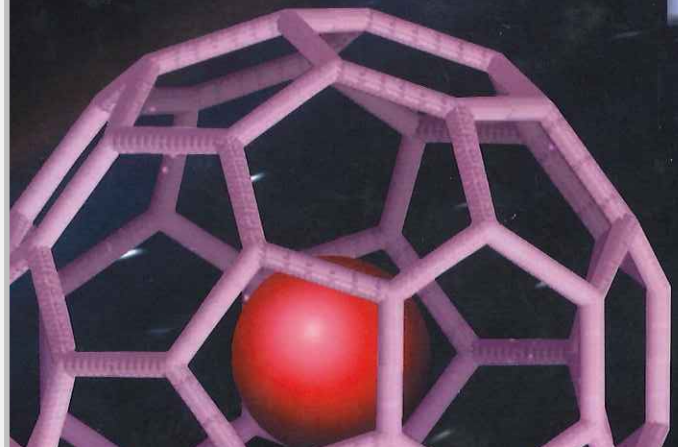
McGraw-Hill Dictionary of SCIENTIFIC and TECHNICAL TERMS



McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS

Sixth Edition

On the cover: Representation of a fullerene molecule with a noble gas atom trapped inside. At the Permian-Triassic sedimentary boundary the noble gases helium and argon have been found trapped inside fullerenes. They exhibit isotope ratios quite similar to those found in meteorites, suggesting that a fireball meteorite or asteroid exploded when it hit the Earth, causing major changes in the environment. ***(Image copyright © Dr. Luann Becker. Reproduced with permission.)***

Over the six editions of the Dictionary, material has been drawn from the following references: G. M. Garrity et al., *Taxonomic Outline of the Procaryotes,* Release 2, Springer-Verlag, January 2002; D. W. Linzey, *Vertebrate Biology,* McGraw-Hill, 2001; J. A. Pechenik, *Biology of the Invertebrates,* 4th ed., McGraw-Hill, 2000; *U.S. Air Force Glossary of Standardized Terms,* AF Manual 11-1, vol. 1, 1972; F. Casey, ed., *Compilation of Terms in Information Sciences Technology,* Federal Council for Science and Technology, 1970; *Communications-Electronics Terminology,* AF Manual 11-1, vol. 3, 1970; P. W. Thrush, comp. and ed., *A Dictionary of Mining, Mineral, and Related Terms,* Bureau of Mines, 1968; *A DOD Glossary of Mapping, Charting and Geodetic Terms,* Department of Defense, 1967; J. M. Gilliland, *Solar-Terrestrial Physics: A Glossary of Terms and Abbreviations,* Royal Aircraft Establishment Technical Report 67158, 1967; W. H. Allen, ed., *Dictionary of Technical Terms for Aerospace Use,* National Aeronautics and Space Administration, 1965; *Glossary of Stinfo Terminology,* Office of Aerospace Research, U.S. Air Force, 1963; *Naval Dictionary of Electronic, Technical, and Imperative Terms,* Bureau of Naval Personnel, 1962; R. E. Huschke, *Glossary of Meteorology,* American Meteorological Society, 1959; *ADP Glossary,* Department of the Navy, NAVSO P-3097; *Glossary of Air Traffic Control Terms,* Federal Aviation Agency; *A Glossary of Range Terminology, White Sands Missile Range, New Mexico,* National Bureau of Standards, AD 467-424; *Nuclear Terms: A Glossary,* 2d ed., Atomic Energy Commission.

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1 2 3 4 5 6 7 8 9 0 DOW/DOW 0 8 7 6 5 4 3 2

[BIOL] Resembling or having the shape of a boat. { nə'vik·yə·lər }

navicular cells [PATH] Boat-shaped squamous epithelial cells filled with glycogen and prominent in the exfoliated cells of the uterine cervix of pregnant women. { nə'vik·yə·lər ˌselz }

naviculoid [BIOL] Referring to a diatom, boat-shaped. { nə'vik·yəˌlȯid }

Navier's equation [MECH] A vector partial differential equation for the displacement vector of an elastic solid in equilibrium and subjected to a body force. { nä'vyāz iˌkwā·zhən }

Navier-Stokes equations [FL MECH] The equations of motion for a viscous fluid which may be written $d\mathbf{V}/dt = -(1/\rho)\nabla p + \mathbf{F} + \nu\nabla^2\mathbf{V} + (1/3)\nu\nabla(\nabla\cdot\mathbf{V})$, where p is the pressure, ρ the density, F the total external force per unit mass, $\mathbf{V}$ the fluid velocity, and ν the kinematic viscosity; for an incompressible fluid, the term in $\nabla\cdot\mathbf{V}$ (divergence) vanishes, and the effects of viscosity then play a role analogous to that of temperature in thermal conduction and to that of density in simple diffusion. { nä'vyā 'stōks iˌkwā·zhənz }

navigable airspace [NAV] Airspace at and above the minimum safe flight level, including airspace needed for safe takeoff and landing. { 'nav·i·gə·bəl 'erˌspās }

navigable semicircle [METEOROL] That half of a cyclonic storm area in which the rotary and progressive motions of the storm tend to counteract each other, and the winds are in such a direction as to blow a vessel away from the storm track. { 'nav·i·gə·bəl 'sem·iˌsər·kəl }

navigating bridge *See* flying bridge. { 'nav·əˌgād·iŋ ˌbrij }

navigating officer [NAV] An officer serving as a navigator. { 'nav·əˌgād·iŋ ˌȯf·ə·sər }

navigating sextant [NAV] A sextant designed and used for observing the altitudes of celestial bodies, as contrasted with a hydrographic sextant. { 'nav·əˌgād·iŋ ˌsek·stənt }

navigation [COMPUT SCI] In a database management system, the techniques provided for locating information within the system. [ENG] The process of directing the movement of a craft so that it will reach its intended destination; subprocesses are position fixing, dead reckoning, pilotage, and homing. { ˌnav·ə'gā·shən }

navigation accuracy measurement system [NAV] A simple height-finding radar system that employs a pulse radar with a rotating fan-beam antenna and a curve-fitting method to evaluate the accuracy of aircraft altitude-measuring equipment. { ˌnav·ə'gā·shən 'ak·yə·rə·sē 'mezh·ər·mənt ˌsis·təm }

navigational aid [NAV] An instrument, device, chart, method, or such, intended to assist in the navigation of a craft; this expression should not be confused with "aid to navigation," which refers only to devices external to a craft. { ˌnav·ə'gā·shən·əl 'ād }

navigational almanac [NAV] A publication that contains tabulated positions of astronomical objects at regular intervals to enable navigators to determine their position. { ˌnav·ə'gā·shən·əl 'ȯl·məˌnak }

navigational planets [NAV] The four planets commonly observed for obtaining data for use in celestial navigation: Venus, Mars, Jupiter, and Saturn. { ˌnav·ə'gā·shən·əl 'plan·əts }

navigational plot [NAV] A plot of the movements of a craft. { ˌnav·ə'gā·shən·əl 'plät }

navigational satellite [AERO ENG] An artificial earth-orbiting satellite designed for use in at least four widely different navigational systems. { ˌnav·ə'gā·shən·əl 'sad·əlˌīt }

navigational triangle [NAV] In celestial navigation, the

navigation head [NAV] A transshipment point on a water way where loads are transferred between water carriers and land carriers. { ˌnav·ə'gā·shən ˌhed }

navigation lights [NAV] Statutory lights shown by aircraft and vessels during the hours between sunset and sunrise in accordance with international agreements. { ˌnav·ə'gā·shən ˌlīts }

navigation radar [NAV] A search radar used on ships primarily for navigation purposes, to provide a visual indication of bearing and distance to any object that projects above the surface of the water within the range of the radar. { ˌnav·ə'gā·shən 'rāˌdär }

navigation receiver [ELECTR] An electronic device that determines a ship's position by receiving and comparing radio signals from transmitters at known locations. { ˌnav·ə'gā·shən riˌsē·vər }

navigation system error [NAV] The difference between an aircraft's true position and the position reported by its navigation sensors. { ˌnav·ə'gā·shən ˌsis·təm ˌer·ər }

navigator [NAV] A person who navigates or is directly responsible for the navigation of a craft. { 'nav·əˌgād·ər }

navite [MINERAL] A porphyritic basalt containing phenocrysts of altered olivine, augite, and basic plagioclase in a groundmass of labradorite and augite. { 'nāˌvīt }

NAVSTAR [NAV] A global system of up to 24 navigation satellites developed to provide instantaneous and highly accurate worldwide three-dimensional location by air, sea, and land vehicles equipped with suitable receivers. Derived from navigation system using time and ranging. { 'navˌstär }

Navy Electronics Laboratory International Algol Compiler *See* NELIAC. { 'nā·vē iˌlekˌträn·iks 'lab·rəˌtōr·ē ˌin·tər'nash·ən·əl 'alˌgȯl kəm'pīl·ərz }

Navy Heavy *See* bunker C fuel oil. { 'nā·vē 'hev·ē }

Navy Oceanographic and Meteorological Automatic Device [OCEANOGR] A 6-meter-long, boat-shaped, moored instrumented buoy. Abbreviated NOMAD. { ˌhāv·ē ˌō·shə·noˌgraf·ik and ˌmēd·ē·ə·rəˈläj·ə·kəl ˌȯd·əˌmad·ik diˈvīs }

Nb *See* niobium.

n-body problem *See* many-body problem. { 'en ˌbäd·ē ˌpräb·ləm }

NBR *See* nitrile rubber.

n-cell [MATH] A set that is homeomorphic either with the set of points in n-dimensional euclidean space ($n = 1, 2, \ldots$) whose distance from the origin is less than unity, or with the set of points whose distance from the origin is less than or equal to unity. { 'en ˌsel }

N center [SOLID STATE] A color center which arises from continued exposure to light in the F band or to x-rays and which produces a faint absorption band on the long-wavelength side of the M band. Also known as G center. { 'en ˌsen·tər }

n-channel [ELECTR] A conduction channel formed by electrons in an n-type semiconductor, as in an n-type field-effect transistor. { 'en ˌchan·əl }

n-channel metal-oxide semiconductor *See* NMOS. { 'en ˌchan·əl ˌmed·əl ˈäkˌsīd 'sem·i·kənˌdək·tər }

n-colorable graph [MATH] A graph whose nodes can be colored using one of n colors on each node in such a way that no edge connects a pair of nodes with the same color. { 'en ˌkəl·ə·rə·bəl 'graf }

n-component [PARTIC PHYS] Cosmic-ray particles that can take part in nuclear interactions, that is, nucleons, pions, and other baryons and mesons. { 'en kəmˌpō·nənt }

n-connected graph [MATH] A connected graph for which the removal of n points is required to disconnect the graph. { 'en kəˌnek·təd 'graf }

N curve [ELECTR] A plot of voltage against current for a