

Universidad Nacional de San Juan

Facultad de Ciencias Exactas Físicas y Naturales

**GLOSSARY OF**

**GEOPHYSICAL**

**AND**

**ASTRONOMICAL**

**TERMS**

TOMO II

PARTE 1

AÑO 2011

**PREFACIO**

Los alumnos de tercer año de la Licenciatura en Astronomía y de la Licenciatura en Geofísica de la Facultad de Ciencias Exactas, Físicas y Naturales de la Universidad Nacional de San Juan hacemos entrega de este segundo tomo del glosario a las autoridades de la institución.

En él se presenta un nuevo listado de términos científicos específicos propios de Astronomía y Geofísica, trabajados durante el cursado de la asignatura Inglés Nivel II en el ciclo lectivo 2011. Los términos han sido enriquecidos con sus correspondientes traducciones en castellano y definiciones en inglés y organizado según las necesidades del usuario.

El objetivo es la contribución de un nuevo tomo del glosario de términos específicos a la Biblioteca Emiliano Pedro Aparicio, para las futuras generaciones de estudiantes que necesiten abordar el análisis de textos científicos en inglés.

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**ABBREVIATIONS**

*astr.* astronomy

*astrophys.* astrophysics

*chem.* chemistry

*(geo.)* geology

*geophys.* geophysics

*phys.* physics

*sol. phys.* solar physics

*math.* mathematics

*biol.* Biology

*hydrol.* hydrology

# PARTE I

## A

**African rift valleys –** valle del rift de Africa **–**(geo.)– If is a huge geological fracture, caused by the separation of two plates diverge, spanning a total of 4,830 kilometers north–sur. Most of the valleys are in Africa, although there is a party to the Red Sea and one in the Jordan Valley.

**alpine glacier –** glaciar alpino –(geo.)– they are stream of ice that originated in snows field of high mountains ranges.

**amino acid glycine** – aminoácido glicina –(chem.) The smallest of the amino acids. It is ambivalent, meaning that it can be inside or outside of the protein molecule. In aqueous solution at or near neutral pH, glycine will exist predominantly as the zwitterions.

**aphanitic texture –**textura afanítica –(geo.)– A texture that consists of small cristal that cannot be seen by the aye. The entire rock is made up of small crystals.

**ash flows**– flujo de lava –(geo.)– A pyroclastic flow that includes a solid phase composed largely of ash and a liquid phase.

**astrobiology** –astrobiología – (astr.) An approach to the scientific study of the living universe which seeks to understand the origin and evolution of life on earth, to determine if life exists elsewhere in the universe, and to predict the future of life on earth and in the rest of the universe.

**a[symptotic giant branch](http://en.wikipedia.org/wiki/Asymptotic_giant_branch" \o "Asymptotic giant branch)** – rama asintótica gigante – (astr.) The region of the Hertzsprung-Russell diagram populated by evolving low to medium-mass stars. This is a period of stellar evolution undertaken by all low to intermediate mass stars (0.6–10 solar masses) late in their lives.

**atmospheric gases** – gases atmosféricos – (phys.) One of the constituents of air, which is a gaseous mixture primarily of nitrogen, oxygen, argon, carbon dioxide, water vapor, ozone, neon, helium, krypton, methane, hydrogen, and nitrous oxide.

**aurora** – aurora – (sol. phys.) A natural light display in the sky particularly in the high latitude ([Arctic](http://en.wikipedia.org/wiki/Arctic) and [Antarctic](http://en.wikipedia.org/wiki/Antarctic)) regions, caused by the collision of energetic charged particles with atoms in the high altitude atmosphere ([thermosphere](http://en.wikipedia.org/wiki/Thermosphere)). The charged particles originate in the magnetosphere and solar wind and are directed by the [Earth's magnetic field](http://en.wikipedia.org/wiki/Earth%27s_magnetic_field) into the atmosphere. More commonly known as the "northern lights".

**auroral ovals** – óvalos aurorales – (sol. phys.) A high–latitude ring of more or less permanent aurora, girdling the geomagnetic pole at a distance of 2000–2500 km under quiet geomagnetic conditions. There are two ovals, one in either hemisphere, each the mirror–image of the other. They are displaced such that the dayside edge is closer to the pole than that on the night side. Under disturbed geomagnetic conditions, the auroral ovals brighten, broaden, and expand towards the equator, particularly on the night side, so the aurora becomes visible at lower latitudes. The auroral ovals remain relatively fixed in space above the rotating Earth.

**axes (major and minor)**– eje (mayor y menor) – (math.)An imaginary line around which an object spins (an [axis of rotation](http://en.wiktionary.org/wiki/axis_of_rotation)) or is symmetrically arranged (an [axis of symmetry](http://en.wiktionary.org/wiki/axis_of_symmetry)).

## B

**backside CMEs** – eyecciones coronales de masa traseras – (sol. phys.) A coronal mass ejection that is propagating away from Earth. It can usually not be detect by coronographs.

**balloon CMEs** – eyecciónes de masa coronal con forma de globo – (sol. phys.) A CMEs that lacks of an initial pre–acceleration phase characterized by a slow rising motion, followed by aperiod of rapid acceleration away from the Sun until a near–constant velocity is reached.

**basaltic magmas**– magmas basálticos –(geo.)– They are low in silica and are relatively fluid.

**batholiths –** batolitos –(geo.)– Intrusion of magma that cooled within the crust, hence they may be called plutons. Shows a dome–shaped or large dome. Over 100 km, if less is called Stock. Its composition is quite homogeneous, generally made of granite or granodiorite (combination of granite and diorite).

[**Big Bang**](http://en.wikipedia.org/wiki/Big_Bang) – Big Bang – (astr.) The Big Bang model is the prevailing [cosmological](http://en.wikipedia.org/wiki/Physical_cosmology)[theory](http://en.wikipedia.org/wiki/Scientific_theory) of the early development of the [universe](http://en.wikipedia.org/wiki/Universe). The major feature of the Big Bang theory is that the universe was once in an extremely hot and dense state that [expanded](http://en.wikipedia.org/wiki/Metric_expansion_of_space) rapidly

**biosphere** –biósfera –(astr.)The part of the earth and its atmosphere in which living organisms exist or that is capable of supporting life.

**blueshifting** – corrimiento hacia el azul – (astr.) The shift of spectral lines toward shorter wavelength in the spectrum, which occurs when the source is approaching.

**breccia** – brecha– (geo.) A sedimentary rock composed of angular fragments that were lithified.

## C

**carboxylic acids** –ácidos carboxílicos – (chem.) One of a large family of organic substances widely distributed in nature, and characterized by the presence of one or more [carboxyl](http://www.answers.com/topic/carboxyl) groups (—COOH). These groups typically yield protons in [aqueous solution](http://www.answers.com/topic/aqueous-solution-chemistry).

**collision of galaxies**– collision de galaxias – (astrophys.)The clouds of gas inside each galaxy may become compressed when two galaxies interact.

**columns of hot gases** – columnas de gases calientes – (astr.)An unknown amount of high temperature gases that constitute a sharp column.

[**compact star**](http://en.wikipedia.org/wiki/Compact_star) – estrella compacta – (astr.) In [astronomy](http://en.wikipedia.org/wiki/Astronomy), the term compact star (sometimes compact object) is used to refer collectively to [white dwarfs](http://en.wikipedia.org/wiki/White_dwarf), [neutron stars](http://en.wikipedia.org/wiki/Neutron_star), other exotic dense stars, and [black holes](http://en.wikipedia.org/wiki/Black_hole).

**continental glacier**– glaciar continental –(geo.)– they are ice sheets thousands of meter thick that spread out and cover large parts of continents.

**continental rift systems –**sistemas del rift continental –(geo.)– they are the tectonic settings for such rocks that have a low silica content.

**continuous spectrum**– espectro continuo – (phys.)The unbroken emission spectrum spanning the range of optical wavelength from the infrared to the ultraviolet.

**convection process** – proceso de convección – (geophys.) The transfer of energy and heat by the movement of gas or fluid.

**c[onvective](http://en.wikipedia.org/wiki/Convection" \o "Convection)** – convección – (astr.) Convection is the movement of molecules within [fluids](http://en.wikipedia.org/wiki/Fluid) (i.e. [liquids](http://en.wikipedia.org/wiki/Liquid), [gases](http://en.wikipedia.org/wiki/Gas)) and [rheids](http://en.wikipedia.org/wiki/Rheid)

**convergent margin** – margen convergente –(geo.)– Is an actively deforming region where two (or more) tectonic plates move toward one another and collide.

**coronagraph –** coronógrafo– (sol. phys.) A telescope that can see things very close to the Sun. It uses a disk to block the Sun's bright surface, revealing the faint solar [corona](http://science.nasa.gov/newhome/headlines/ast02sep99_1.htm), stars, planets and sungrazing comets. In other words, a coronagraph produces an artificial solar eclipse. The Solar and Heliospheric Observatory ([SOHO](http://soho.nascom.nasa.gov/)) has two coronagraphs onboard.

**coronal holes** – agujeros coronales – (sol. phys.) Areas where the [Sun](http://en.mimi.hu/astronomy/sun.html)'s [corona](http://en.mimi.hu/astronomy/corona.html) is darker, colder, and has lower–[density](http://en.mimi.hu/astronomy/density.html) [plasma](http://en.mimi.hu/astronomy/plasma.html)than average. These were found when [X–ray](http://en.mimi.hu/astronomy/x-ray.html) [telescope](http://en.mimi.hu/astronomy/telescope.html)s in the Skylab mission were flown above the[earth](http://en.mimi.hu/astronomy/earth.html)'s [atmosphere](http://en.mimi.hu/astronomy/atmosphere.html) to reveal the structure of the [corona](http://en.mimi.hu/astronomy/corona.html).

**coronal mass ejection** (**CME**) – eyección coronal de masa– (sol. phys.) A massive burst of [solar wind](http://en.wikipedia.org/wiki/Solar_wind), other light isotope plasma, and magnetic fields rising above the [solar](http://en.wikipedia.org/wiki/Sun) [corona](http://en.wikipedia.org/wiki/Corona) or being released into space.

**coronal streamer belt**– cinturón coronal de “serpentina”– (sol. phys.) A bright loop–like structures which develop over active regions on the [sun](http://en.wikipedia.org/wiki/Sun) confined in the mid latitudes. They are closed magnetic loops which connect regions of opposite magnetic polarity.

**cosmological principle**– principio cosmológico – (astr.) The assumption that, on the large scale, the universe at any given time is the same everywhere.

**cosmology**– cosmología – (astr.) The study of the organization and evolution of the inverse.

[**crab nebula**](http://en.wikipedia.org/wiki/Crab_nebula) – nebulosa del Cangrejo – (astr.) The Crab Nebula (catalogue designations [M](http://en.wikipedia.org/wiki/Messier_object)1, [NGC](http://en.wikipedia.org/wiki/New_General_Catalogue) 1952, Taurus A) is a [supernova remnant](http://en.wikipedia.org/wiki/Supernova_remnant) and [pulsar wind nebula](http://en.wikipedia.org/wiki/Pulsar_wind_nebula) in the [constellation](http://en.wikipedia.org/wiki/Constellation) of [Taurus](http://en.wikipedia.org/wiki/Taurus_%28constellation%29).

**crater –**  crater **–**(geo.) The depression at the summit of a volcano, or that which is produced by a meteorite impact.

**crevasse**– grieta –(geo.)–a deep fissure, as in a glacier, a chasm.

## D

**dark nebulae** – nebulosa oscura – (astr.) A cloud of dust that is only visible by absorption of light from object behind them.

**diameter**– diámetro – (math.) The longest distance from one side of a circle (or a sphere) to the other.

**diffuse nebulae** – nebulosa difusa – (astr.) A cloud of interstellar matter, namely thin but widespread agglomerations of gas and dust. If they are large and massive enough they are frequently places of star formation, thus generating big associations or clusters of stars.

**dikes**– diques –(geo.)– A dike or dyke in geology is a type of sheet intrusion referring to any geologic body that cuts discordantly across planar wall rock structures, such as bedding or foliation or massive rock formations, like igneous/magmatic intrusions and salt diapirs .

**distribution of recently active volcanoes and their realtionship whith the major plate boundaries –** la distribución de los volcanes actives recientemente y la su relación con las principales bordes de placa –(geo.)– The major active regions, at present, there are three: the Pacific Ring of Fire, the Mediterranean–Asian strip and ridges. The "Ring of Fire" or Circum–circle is a set of zones corresponding to plate boundaries where earthquakes and volcanic activity is primarily due to subduction. The Mediterranean–Asian strip affects the Mediterranean Sea to the Himalayas and Indonesia. The processes that occur in this area are of subduction and obduction, both large plates and microplates. In all ridges they are detected seismic and volcanic processes. They are due to the separation of the plates by the intrusion of material from the asthenosphere and the lateral movement on the transform faults.

**divergent magins –** margenes divergentes –(geo.)– They occur in places where the plates move away from one another arises from the mantle melt and form mid–ocean ridges.

**DNA** –ácido desoxirribonucleico –(chem.) A nucleic acid that carries the genetic information in the cell and is capable of self–replication and synthesis of RNA. DNA consists of two long chains of nucleotides twisted into a double helix and joined by hydrogen bonds between the complementary bases adenine and thymine or cytosine and guanine. The sequence of nucleotides determines individual hereditary characteristics.

**Drake equation** – ecuación de Drake – (astr.) An equation which gives the number of advanced technological civilizations currently active in the Galaxy as the product of the rate at which new stars are born in the Galaxy, the probability (actually a product of probabilities) that any one of these stars will possess the necessary conditions for life to originate and to slowly evolve to a technological civilization, and the average longevity of such civilizations.

## E

**Earth** – Tierra – (geophys.)The third major planet from de Sun, and the largest of the four inner or terrestrial planets.

**Earth´s upper atmosphere**– atmósfera terrestre superior– (astr.) A layer of [gases](http://en.wikipedia.org/wiki/Gases) surrounding the planet [Earth](http://en.wikipedia.org/wiki/Earth) that is retained by Earth's [gravity](http://en.wikipedia.org/wiki/Gravity). The [atmosphere](http://en.wikipedia.org/wiki/Atmosphere) protects [life on Earth](http://en.wikipedia.org/wiki/Organism) by absorbing [ultraviolet](http://en.wikipedia.org/wiki/Ultraviolet) [solar radiation](http://en.wikipedia.org/wiki/Solar_radiation), warming the surface through heat retention, and reducing [temperature](http://en.wikipedia.org/wiki/Temperature) extremes between [day](http://en.wikipedia.org/wiki/Daytime_(astronomy)) and [night](http://en.wikipedia.org/wiki/Night).

**Earth’s magnetic bubble** – burbuja magnética terrestre – (geophys.) An expression that refers to the Earth's magnetic field.

**Earth’s magnetic field** – campo magnético terrestre – (geophys.) A magnetic dipole, similar to that of a bar magnet tilted 11° from the earth's axis of rotation. The magnetic South Pole is near the geographic South Pole, and the magnetic north pole is near the geographic North Pole. The earth's magnetic field, extending tens of thousands of kilometers into space, is called the magnetosphere (actually, like all magnetic fields, the earth's field extends infinitely into space, but is much weaker farther away). The magnetosphere protects the earth from solar wind, which is a stream of charged particles ejected from the sun. Although not fully understood, the earth's magnetic field is caused by the dynamo effect. The direction of the earth's magnetic field can also reverse direction.

**Earth’s magnetic poles**– polos magnéticos terrestres – (geophys.) Earth has two geographic poles: the North Pole and the South Pole. They are the places on Earth's surface that Earth's imaginary spin axis passes through. Our planet also has two magnetic poles: the North Magnetic Pole and the South Magnetic Pole. The magnetic poles are near, but not quite in the same places as, the geographic poles.

**Earth’s magnetosphere**– magnetósfera terrestre – (geophys.) A region in space whose shape is determined by the Earth's internal magnetic field, the [solar wind](http://en.wikipedia.org/wiki/Solar_wind) plasma, and the [interplanetary magnetic field](http://en.wikipedia.org/wiki/Interplanetary_magnetic_field) (IMF). In the magnetosphere, a mix of free [ions](http://en.wikipedia.org/wiki/Ions) and [electrons](http://en.wikipedia.org/wiki/Electrons) from both the solar wind and the Earth's ionosphere is confined by electromagnetic forces that are much stronger than gravity and collisions.

**electrical current** – corriente eléctrica – (phys.) A measure of the amount of electrical charge transferred per unit time. It represents the flow of [electrons](http://physics.about.com/od/glossary/g/electron.htm) through a conductive material.

**electromagnetic radiation** – radiación electromagnetica – (astr.) The energy that radiates from all things in nature and from man–made electronic systems and stars. It includes cosmic rays, gamma rays, x–rays, ultraviolet light, visible light, infrared light, radar, microwaves, TV, radio, cel lphones and all electronic transmission systems. Electromagnetic radiation is made up of electric and magnetic fields that move at right angles to each other at the speed of light.

**elliptical galaxy** – galaxia elíptica – (astr.) A galaxy without spiral arms and with an ellipsoidal shape. Ellipticals have little interstellar matter and no blue giants (the only giants are red). Ellipticals apparently produce only Type I supernovae.

**ellipticity** – elipticidad – (math.)The ratio of the difference between the equatorial and polar radii to the mean radius.

**emission nebulae** – nebulosa de emisión – (astr.) Some of the young stars that are often massive and so hot that their high energy radiation can excite the gas of the nebula (mostly hydrogen to shine.

**energetic cloud of electrons** – nube energetic de electrons – (phys.) The arrangement of electrons within a metallic bond that permits the free movement of electrons from one atom to the next.

**excited atoms** – átomos exitados – (phys.) An [atom](http://en.mimi.hu/astronomy/atom.html) in which an [electron](http://en.mimi.hu/astronomy/electron.html) has moved from a lower to higher [orbit](http://en.mimi.hu/astronomy/orbit.html).

**extremophile** –extremófilos –(biol.) A micro–organisms that thrive in [extreme environments](http://www.newscientist.com/channel/space-tech/astrobiology/mg16522274.700), such as alkali lakes and rock fissures [deep underground](http://www.newscientist.com/channel/space-tech/astrobiology/mg15721245.000).

**extrusive igneous**– igneas intrusivas –(geo.)– a rock formed from magma erupted from a volcano.

**extrusive ígneous rock**– roca ignea extrusive –(geo.)– A rock formed from a mass of magma that flows out on the surface of the Earth.

## F

**faculae** – fáculas – (sol. phys.) Bright patches that are visible on the Sun's surface, or [photosphere](http://www.seasky.org/astronomy/astronomy-glossary.html#Photosphere).

**fault blocks –**bloque de falla**–**(geo.)– A rock mass bounded by faults on at least two sides.

**filament** – filament – (sol. phy.) A strand of cool gas suspended over the [photosphere](http://www.seasky.org/astronomy/astronomy-glossary.html#Photosphere) by [magnetic fields](http://www.seasky.org/astronomy/astronomy-glossary.html#Magnetic Field), which appears dark as seen against the [disk](http://www.seasky.org/astronomy/astronomy-glossary.html#Disk) of the Sun.

**finder** – buscador – (astr.) A small, wide–field [telescope](http://www.seasky.org/astronomy/astronomy-glossary.html#Telescope) attached to a larger telescope. The finder is used to help point the larger telescope to the desired viewing location.

**fireball** – bola de fuego – (astr.)An extremely bright [meteor](http://www.seasky.org/astronomy/astronomy-glossary.html#Meteor). Also known as [bolides](http://www.seasky.org/astronomy/astronomy-glossary.html#Bolide), fireballs can be several times brighter than the full Moon. Some can even be accompanied by a sonic boom.

**firn**– neviza –(geo.)– Granular, partially consolidated snow that has passed through one summer melt season but is not yet glacial ice.

**fissure eruptions –** erupciones de fisura –(geo.)– extrusion of lava along a fissure, forma a succession of thin lava flows that cover large areas.

**flare Star** – estrellas llamarada – (astr.)A faint red star that appears to change in brightness due to explosions on its surface.

**formamide** –formamida – (chem.) An [amide](http://www.answers.com/topic/amide) derived from [formic acid](http://www.answers.com/topic/formic-acid). It is a clear liquid which is miscible with water and has an [ammonia](http://www.answers.com/topic/ammonia)–like odor. It is used primarily for manufacturing [sulfa drugs](http://www.answers.com/topic/sulfonamide-medicine) and synthesizing [vitamins](http://www.answers.com/topic/vitamin) and as a [softener](http://www.answers.com/topic/softener-4) for paper and fiber. In its pure form, it dissolves many [ionic compounds](http://www.answers.com/topic/ionic-compound) that are insoluble in water, so it is also used as a [solvent](http://www.answers.com/topic/solvent). Formamide will begin to partially decompose into carbon monoxide and ammonia at 180°C.

## G

**galactic equator**– ecuador galáctico – (astr.) The intersection of the principal plane of the Milky Way with the celestial sphere.

**galactic poles**– polos galácticos – (astr.) The poles of the galactic equator; the intersections with the celestial sphere of a line through the observer that is perpendicular to the plane of the galactic equator.

**geomagnetic storm**– tormenta geomagnética – (geophys.) A temporary disturbance of the [Earth](http://en.wikipedia.org/wiki/Earth)'s [magnetosphere](http://en.wikipedia.org/wiki/Magnetosphere) caused by a disturbance in the [interplanetary medium](http://en.wikipedia.org/wiki/Interplanetary_medium).

**geostationary orbit** – órbita geoestacionaria – (astr.) A circular orbit positioned approximately 35,900 km (22,258 mi) above Earth's equator and having a period of the same duration and direction as the rotation of the Earth. An object in this orbit will appear stationary relative to the rotating Earth. Communications and weather satellites are usually placed in a geostationary orbit.

**giant molecular cloud** – nube molecular gigante – (astr.)A type of [interstellar cloud](http://en.wikipedia.org/wiki/Interstellar_cloud) whose density and size permits the formation of molecules, most commonly [molecular hydrogen](http://en.wikipedia.org/wiki/Molecular_hydrogen).

**glaciar**– glaciar –(geo.)– it is a system of flowing ice that originates on lode through the accumulation and recrystallization of snow.

**glass beads –** cuentas de vidrio (geo.) Natural glass produced when molten lava cools too rapidly to permit recrystallization.

**gravity flous system**– sistema de flujo gravitatorio –(hydrol) A form of glacial movement in which the flow of the ice results from the downslope gravitational component in an ice mass resting on a sloping floor.

## H

**hanging wall –**techo –(geo.)– the surface or block of that lies above an inclined fault plane.

**Herbig – Haro nebulae** – nebulosa Herbig–Haro – (astr.)A stars in the process of formation emitting jets of gaseous material, thus often found near large diffuse nebulae with star formation.

[**Hertzsprung-Russell (H-R) diagram**](http://en.wikipedia.org/wiki/Hertzsprung-Russell_diagram) – diagrama Hertzsprung-Russell (H-R) – (astr.) The Hertzsprung–Russell diagram is a [scatter graph](http://en.wikipedia.org/wiki/Scatter_graph) of [stars](http://en.wikipedia.org/wiki/Star) showing the relationship between the stars' [absolute magnitudes](http://en.wikipedia.org/wiki/Absolute_magnitude) or [luminosities](http://en.wikipedia.org/wiki/Luminosities) versus their [spectral types](http://en.wikipedia.org/wiki/Spectral_type) or [classifications](http://en.wikipedia.org/wiki/Stellar_classification) and [effective temperatures](http://en.wikipedia.org/wiki/Effective_temperature).

**high resolution spectroscopy** – espectroscopía de alta resolución – (phys.) Any photographic record of the spectrum of an object. The spectrum is the distribution of intensity of electromagnetic radiation with wavelength.

**highland** – region montañosa (astr.) The older, heavily cratered crust of the Moon, covering 83 percent of its surface ans composed in large part of anorthositic breccias.

**Hubble diagram** – diagrama de Hubble – (astr.)The plot of apparent magnitude of galaxies versus their redshift.

**Hubble´s classification of galaxies** – clasificacion de galaxias de Hubble – (astr.) Theelliptical, ranking from E0 (spherical) to E7 (greatest eccentricity); S0 (nuclei surrounded by disk like structure without arms); spiral, ranging from Sa (arms tightly wound around the nucleus) to Sc (arms widely spread out from the nucleus); barred spirals ranging from SBa (arms tightly wound) to SBc (arms widely spaced out); irregular (Ir).

## I

**igneous rock –**  rocas igneas (geo.) Rock formed from the crystallization of magma.

**impact basins** – cuenca de impacto (astr.) Large features in the lunar crust formed by the impact of projectiles up to 100 km in diameters.

In northern [latitudes](http://en.wikipedia.org/wiki/Latitude), the effect is known as the *aurora borealis* and in the southern counterpart, it is called *aurora australis.*

**inertia –** inercia– (phys.) The resistance an object has to a change in its state of motion.

**inner planets** –planetas interiors – (astr.) Any of the four planets, Mercury, Venus, Earth, and Mars, whose orbits are closest to the Sun.

**intrusions**– intrusiones –(geo.)– Masses of igneous rock formed when magma cools beneath the surface.

**intrusive rocks**– rocas intrusivas –(geo.)Rock which form by the crystallization of magma at a depth within the Earth. They are characterized by large crystal sizes, their visual appearance shows individual crystals interlocked together to form the rock mass. The cooling of magma deep in the Earth is typically much slower than the cooling process at the surface, so larger crystals can grow.

**irregular galaxy**– galaxia irregular – (astr.) A galaxy with an amorphous structure and with relatively low mass.

**island arcs**– arcos de islas –(geo.)– A curving series of volcanic islands that are created through the collision of tectonic plates in an ocean setting. The particular type plate boundary that yields island arcs is called a subduction zone.

**isotropic**– isotrópico – (math.) The same in all directions.

**iterplanetary CMEs**– eyección coronal de masa interplanetaria – (sol. phys.) A coronal mass ejection directed towards the [Earth](http://en.wikipedia.org/wiki/Earth).

## J

**Jansky** – jansky – (astr.) A unit used in radio astronomy to indicate the flux density (the rate of flow of radio waves) of electromagnetic radiation received from outer space. A typical radio source has a spectral flux density of roughly 1 Jy. The jansky was named to honor Karl Gothe Jansky who developed radio astronomy in 1932.

**jasper**– jaspe –(geo.)–A variety of colored chert, typically red or green and often found in association with iron ores. Jasper is frequently used as a gemstone or in the production of ornaments.

**jovian planet – planetas jovianos – (astr.)** Any of the large outer planets: Jupiter, Saturn Uranus, and Neptune.

**Julian Day** – día juliano – (astr.) A unit of time within the Julian Dating System where the number of ephemeris days that have elapsed since 12h ephemeris time on January 1, 4713 B.C. JD for 1970 January 1 is 2440588.

**Jupiter** – Jupiter – (astr.) The fifth and largest planet in our solar system. This gas giant has a thick atmosphere, 39 known moons, and a dark, barely–visible ring. Its most prominent features are bands across its latitudes and a great red spot (which is a storm).   
Jupiter is composed mostly of gas. This enormous planet radiates twice as much heat as it absorbs from the [Sun](http://www.enchantedlearning.com/subjects/astronomy/sun/). It also has an extremely strong magnetic field. It is slightly flattened at its poles and it bulges out a bit at the equator.

## K

**kaolinite –**caolinita –(geo.)–A type of clay mineral from the kaolin group that forms through the weathering of feldspar and mica group minerals. Unlike some clay minerals like montmorillonite, kaolinite is not prone to shrinking or swelling with changes in water content.

**keplerian – kepleriana – (astr.)** An orbit that follows Kepler’s Law.

**Kepler's Laws of Planetary Motion** – ley de Kepler del movimiento planetario – (astr.) 1. The planets move in elliptical orbits with the Sun at one focus. 2. An imaginary line joining the center of a planet to the center of the Sun sweeps the same amount of space all the time. 3. The time it takes a planet to orbit the Sun is related to how far away from the Sun an object is.

**Kirkwood gaps** – vacíos de Kirkwood – (astr.) A Region in the asteroid belt where almost no asteroids can be found. This is due to the fact that the giant planet Jupiter changes the orbits of any object which enters these areas.

**Kuiper Belt** – cinturón de Kuiper – (astr.) A disk of comets beyond Neptune's orbit (or 30 to 100+ A.U.) that orbit roughly in the same plane as the planets. Many of the [short period comets](http://www.astronomynotes.com/glossary/glosss.htm#shortperiodcom) come from the Kuiper Belt.

## L

**L waves** – ondas L – (geo.) L waves have longer periods then other seismic waves.

**laccolith**– lacolitos –(geo.)–A sheet intrusion (or concordant pluton ) that has been injected between two layers of sedimentary rock. The pressure of the magma is high enough that the overlying strata are forced upward, giving the laccolith a dome or mushroom–like form with a generally planar base.

**lava –** lava –(geo.)– It is a fluid, with small differences solids and gases, escapes through volcanic eruptions. They may be silicic and basaltic.

**light isotope plasma** – isotopos livianos de plasma – (sol. phys.) A gas consisting of charged particles of free ions.

**liquefaction –** licuefacción –(geo.) Refers to the process by which saturated, unconsolidated sediments are transformed into a substance that acts like a liquid.

**little ice age** – pequeña era de hielo – (sol. phys.) A period of cooling that occurred after the [Medieval Warm Period](http://en.wikipedia.org/wiki/Medieval_Warm_Period). While not a true [ice age](http://en.wikipedia.org/wiki/Ice_age), the term was introduced into scientific literature by François E. Matthes in 1939. It is conventionally defined as a period extending from the 16th to the 19th centuries, though climatologists and historians working with local records no longer expect to agree on either the start or end dates of this period, which varied according to local conditions.

**lunar regolith –** regolito lunar (geo.) All lunar terrains are mantled with a layer of gray, unconsolidated debris derived from a few billons years of meteoric bombardment.

## M

**magnetic field lines** – líneas de campo magnetico – (phys.) Magnetic field lines similarly describe the structure of magnetic fields in three dimensions.

**magnetic filament** – filamento magnético – (sol. phys.) Sheets of luminous gas emanating from the sun's surface; they appear dark against the sun's disk but bright against the dark sky, and occur only in regions of horizontal magnetic fields.

**magnetic reconnection** – reconección magnética – (sol. phys.)The name given to derearrangement of magnetic field lines.

**marias –** marias (geo.) The smooth areas on our Moon’s surface that were incorrectly thought to be seas.

**Mars** –Marte –(astr.) The fourth planet from the Sun, named for the Roman god of war and also known as the Red Planet; its ruddy hue is due to iron oxide (rust) in the surface rocks. Mars has only one–tenth the mass and one–quarter the surface area of Earth but, because it lacks oceans, the area of Mars's accessible dry land is roughly equal to that of Earth's dry land.

**Maunder minimum** – mínimo de Maunder – (sol. phys.) The name used for the period roughly spanning 1645 to 1715 when [sunspots](http://en.wikipedia.org/wiki/Sunspot) became exceedingly rare, as noted by solar observers of the time.

**Mercury** –Mercurio – (astr.) The planet closest to the Sun. It is visible to the [unaided](http://www.answers.com/topic/unaided) eye only shortly after sunset or shortly before sunrise, when it is near its greatest angular distance from the Sun (28°). Its diameter is 3031 mi (4878 km), and its mass is 0.055 times the mass of the Earth. Most detailed knowledge of Mercury is derived from data returned by the *Mariner 10* spacecraft, which flew by the planet three times in 1974 and 1975. The coverage and resolution is somewhat comparable to Earth–based telescopic coverage and resolution of the Moon before the advent of space flight.

**micrometeorite** – micrometeorito (Astrol.) A meteoroid so small that, on entering the atmosphere of the Earth, i s slowed quickly enough that it does not burn up or ablate but filters through the air to the ground.

**mid– ocean ridge**– dorsal mesoatlántica –(geo.)– A general term for an underwater mountain system that consists of various mountain ranges (chains), typically having a valley known as a rift running along its spine, formed by plate tectonics.

**mineral**– mineral –(geo.)– A naturally occurring solid chemical substance formed through biogeochemical processes, having characteristic chemical composition, highly ordered atomic structure, and specific physical properties.

**mineral grains**– granos minerals –(geo.)– that make up the structure of a rock formed by small elements visible to the naked eye. Each of these elements is a grain. The huge rocks suffer a coarse slow formation process, while fine–grained rocks are formed more rapidly (in geological time scale). If a rock is formed very quickly, as the solidification of the lava from a volcano, it may not have any grain. This is how such as obsidian is formed.

**Moon’s orbit** – órbita lunar – (astr.) Theorbit of a spacecraft around the moon.

**most important characteristics of the different kinds of galaxies**– las **características más importantes de los diferentes tipos de galaxias**– (astr.) A morphological descriptions of the differents types of galaxies; such as mass, diameter, luminosity, absolute visual magnitude, population content of stars, composite spectral type and interstellar matter.

## N

**nanobacteria** –nanobacteria – (biol.) The smallest cell–walled organisms on Earth, the existence of which is the center of great controversy. A nano–bacterium is by definition one billionth of a meter in diameter (1/10 the size of bacteria), leaving some to question whether or not an organism of this size has enough room to house necessary cell components such as DNA, RNA, and plasmids.

**NASA –** Administración Nacional de Aeronáutica y del Espacio – (astr.) The government agency responsible for space programs.

**nebulae** – nebulosa – (astr.) A interstellar masses of gas and dust. Anobserved manifestation of a collection of highly rarefied gas and dust in interstellar space. Prior to the 1960s this term was also applied to bodies later discovered to be [galaxies](http://www.answers.com/topic/galaxy), e.g., the so–called Great Nebula in the constellation Andromeda. In 1864, William Huggins confirmed William Herschel's conclusion that nebulae are not swarms of stars by determining that the spectra of nebulae are made of bright lines characteristic of radiating gases. Diffuse nebulae and planetary nebulae are two major classifications of these objects.

**normal fault –**falla normal –(geo.)– a steeply inclined fault in which the hanging wall has moved downward in relation to the footwall.

**nucleic acid** –ácido nucleico –(chem.) Any of a group of complex compounds found in all living cells and viruses, composed of purines, pyrimidines, carbohydrates, and phosphoric acid. Nucleic acids in the form of DNA and RNA control cellular function and heredity.

## O

**oblate spheroid** – esferoide horizontal – (astr.) A celestial body flattened at [the](http://dictionary.reference.com/browse/the) poles, as a spheroid generated by the revolution of an ellipse about its shorter axis.

**obsidian**– obsidian –(geo.)– A glassy igneous rock with a composition similar to granite. The glassy texture is a result of cooling so fast that mineral lattices were not developed.

**occultation – ocultación – (astr.)** An eclipse for a planet or star behind the Moon or one of the planets.

**opitcal binary – binaria óptica – (astr.) A** pair of stars that appear to be related because they seem close together, but are actually situated at very different distances from the Earth.

**opposition– oposición – (astr.) A** planetary position when it is on the opposite side of the Earth from the Sun.

**outer planets** –planetas exteriors –(astr.) Any of the four planets, Jupiter, Saturn, Uranus, and Neptune, with orbits outside that of Mars.

## P

**panspermia** – panspermia – (biol.) A [bacteria](http://www.newscientist.com/channel/space-tech/astrobiology/dn516) or their [spores](http://www.newscientist.com/channel/space-tech/astrobiology/mg17022885.000) can [probably survive the journey](http://www.newscientist.com/channel/space-tech/astrobiology/dn3186) though space, despite the cold and [intense radiation](http://www.newscientist.com/channel/space-tech/astrobiology/mg17323251.500), which means that primitive life might once have been carried [between the planets](http://www.newscientist.com/channel/space-tech/astrobiology/mg17924034.700) of the solar system.

**peak acceleration** – pico de aceleración – (geo.) It is the largest acceleration recorded by a particular station during an earthquake.

**phaneritic texture –** textura faneritica –(geo.)– Rocks with visible crystals of roughly the same size.

**phenocrystals –** fenocristales –(geo.)– a relatively large and usually conspicuous crystal distinctly larger than the grains y the rock groundmass of a porphyritie igneous rock, large crystals of feldspar in a basalt flow.

**planetary nebulae** – nebulosa planetaria – (astr.) A star which ejects a significant portion of its mass in a gaseous shell which is then visible in the light emitted due to high–energy excitation by its extremely hot central star, which previously was the core of the stellar progenitor. These nebulae quickly expand and fade while their matter is spread in the interstellar surroundings.

**plasma physicist** – físico del plasma – (sol. phys.) A person that studies the matter in its plasma phases.

**plastic flows ­**– flujo plastic –phys.– in ice, is due to pressure at depth. Melting and freezing cause crystals to grow and be down out.

**post–stellar nebulae** – nebulosa post–estelar – (astr.) A specific star in advanced state of evolution, at or just beyond the end of its nuclear life.

**pre–stellar nebulae** – nebulosa pre–estelar – (astr.)A cloud of interstellar matter of a mass of several 100 or several 1,000 stars.

**prolate espheroid** – esferoide vertical – (astr.) A celestial body elongated along [the](http://dictionary.reference.com/browse/the) polar diameter, as a spheroid generated by the revolution of an ellipse about its longer axis.

## Q

**quadrature** – cuadratura – (astr.)A point in the orbit of a [superior planet](http://www.seasky.org/astronomy/astronomy-glossary.html#Superior Planet) where it appears at right angles to the Sun as seem from Earth.

**quadrupole**– cuadrupolo – (phys.)A quadrupole is equivalent to the presence of two equal dipoles parallel to each other, but with their corresponding charges reversed; or more generally, that component of the charge distribution which has axial or triaxial symmetry. Similarly, when referred to mass distributions, it arises from unequal components of the moment–of–inertia tensor along three principal directions.

**quartz**– cuarzo –(geo.)– One of the most abundant minerals in the earth's crust. Has a chemical composition of SiO2 and a hardness of seven. One of the index minerals in Moh's Hardness Scale. Occurs in sedimentary, metamorphic and igneous rocks.

**quasi–Stellar Object** – objeto cuasi estelar – (astr.)Sometimes also called quasi–stellar source, this is a star–like object with a large redshift that gives off a strong source of radio waves. They are highly luminous and presumed to be [extragalactic](http://www.seasky.org/astronomy/astronomy-glossary.html#Extragalactic).

**quiet Sol –** Sol tranquilo – (astr.) The Sun when the 11–year cycle of activity is at a minimum.

## R

**radio communications** – comunicaciones de radio – (phys.)  The transmission or reception of [electromagnetic radiation](http://encyclopedia2.thefreedictionary.com/electromagnetic+radiation) in the [radio frequency](http://encyclopedia2.thefreedictionary.com/radio+frequency) range.

**red dwarf** – enana roja – (astr.) According to the [Hertzsprung-Russell diagram](http://en.wikipedia.org/wiki/Hertzsprung-Russell_diagram" \o "Hertzsprung-Russell diagram), a red dwarf star is a small and relatively [cool](http://en.wikipedia.org/wiki/Temperature) [star](http://en.wikipedia.org/wiki/Star), of the [main sequence](http://en.wikipedia.org/wiki/Main_sequence), either late K or M [spectral type](http://en.wikipedia.org/wiki/Spectral_type).They constitute the vast majority of stars and have a mass of less than half that of the [Sun](http://en.wikipedia.org/wiki/Sun) (down to about 0.075 solar masses, which are [brown dwarfs](http://en.wikipedia.org/wiki/Brown_dwarf)) and a surface temperature of less than 4,000 [K](http://en.wikipedia.org/wiki/Kelvin)

**r[ed supergiants](http://en.wikipedia.org/wiki/Red_supergiant" \o "Red supergiant)** – supergigantes rojas – (astr.) Red supergiants (RSGs) are [supergiant](http://en.wikipedia.org/wiki/Supergiant)[stars](http://en.wikipedia.org/wiki/Star) ([luminosity class](http://en.wikipedia.org/wiki/Stellar_classification#Yerkes_spectral_classification) I) of [spectral type](http://en.wikipedia.org/wiki/Spectral_classification) K or M. They are the largest stars in the universe in terms of [volume](http://en.wikipedia.org/wiki/Volume), although they are not the most [massive](http://en.wikipedia.org/wiki/Mass)

**reflection nebulae** – nebulosa de reflexión – (astr.) Some stars that are not hot enough, have their light reflected by the dust and can be seen as white or bluish.

**regolith** – regolito (astr.) The polverized surface soil of the Moon (or any airless body) produced by meteorite impacts.

**regolith –**  regolito (geo.) The layer of rock end mineral fragments that nearly everywhere covers Earth’s land surface.

**reverse faults –**fallas inversas –(geo.)– a fault in whitch the hanging wall has moved upward in relation to the footwall; a high–angle thrust fault.

**ring of fire**– anillo de fuego –(geo.)– this zone is located on the Pacific coast and it is characterized by concentrating some of the major subduction zones of the world, causing an intense volcanic and seismic activity in the areas covered.

**RNA** –ácido ribonucleic –(chem.) A polymeric constituent of all living cells and many viruses, consisting of a long, usually single–stranded chain of alternating phosphate and ribose units with the bases adenine, guanine, cytosine, and uracil bonded to the ribose. RNA molecules are involved in protein synthesis and sometimes in the transmission of genetic information. Also called ribonucleic acid.

**rocky planets** –planetas rocosos –(astr.) Any of the four planets, Mercury, Venus, Earth, or Mars, that are nearest the sun and have similar size and density.

## S

**SDO** – solar dynamic observatory – (sol. phys.)A [NASA](http://en.wikipedia.org/wiki/NASA) mission which will observe the [Sun](http://en.wikipedia.org/wiki/Sun) for over five years. Launched on February 11, 2010, the observatory is part of the [Living With a Star](http://en.wikipedia.org/wiki/Living_With_a_Star) (LWS) program. The goal of the LWS program is to develop the scientific understanding necessary to effectively address those aspects of the connected [Sun](http://en.wikipedia.org/wiki/Sun)–[Earth](http://en.wikipedia.org/wiki/Earth) system that directly affect life and society.

**seismicity**– sismisidad –(geo.)– the frecuency or magnitude of earthquake activity in a given area. The relative frequency and distribution of earthquake. The property or strate of being seismic.

**seismogram** – sismograma – (geo.) The record made by a seismograph.

**seismograph** – sismógrafo – (geo.) An instrument that records earthquake waves.

**seismology** – sismología – (geo.) The study of earthquake waves.

**silicic magmas**– magma silísico –(geo.)– The silicic magmas are rich in silica so they are thick and viscous.

**sills**– sills –(geo.)– a tabular body of intrusive rock injected between layers of the enclosing rock.

**snowline**– línea de nieves perpetuas –(geo.)– the boundary between the zone of accumulation and ablation.

**solar cycle** – ciclo solar – (sol. phys.) A periodic change in the amount of [irradiation](http://en.wikipedia.org/wiki/Irradiation) from the sun that is experienced on Earth. It has a period of about 11 years, and is one component of [solar variation](http://en.wikipedia.org/wiki/Solar_variation), the other being a periodic fluctuation. Solar variation causes changes in [space weather](http://en.wikipedia.org/wiki/Space_weather) and to some degree [weather](http://en.wikipedia.org/wiki/Weather) and [climate](http://en.wikipedia.org/wiki/Climate) on Earth. The cycle is observed by counting the frequency and placement of [sunspots](http://en.wikipedia.org/wiki/Sunspot) visible on the [Sun](http://en.wikipedia.org/wiki/Sun).

**solar disk** – disco solar – (sol. phys.) The surface of the Sun or other celestial body projected against the sky.

**solar energetic particles**– partículas energéticas solares – (sol. phys.)  The high–energy particles coming from the Sun.They consist of [protons](http://en.wikipedia.org/wiki/Protons), [electrons](http://en.wikipedia.org/wiki/Electrons) and heavy ions with energy ranging from a few tens of [keV](http://en.wikipedia.org/wiki/KeV" \o "KeV) to [GeV](http://en.wikipedia.org/wiki/GeV" \o "GeV).

**solar interior**– interior solar – (sol. phys.)A synonymous of solar nucleus. It is the part of Sun that is below the photosphere.

**solar magnetic equator**– ecuador magnetico solar – (sol. phys.) A line connecting all points on the Sun's surface at which the magnetic field is parallel to the Sun's surface. A balanced magnetic needle on the magnetic equator stabilizes in a perfectly horizontal position.

**solar mass** – masa solar – (astr.) The solar mass (\begin{smallmatrix}M_\odot\end{smallmatrix}), 1.98892×1030 [kg](http://en.wikipedia.org/wiki/Kilogram), is the standard [unit of mass](http://en.wikipedia.org/wiki/Units_of_mass) in [astronomy](http://en.wikipedia.org/wiki/Astronomy), used to indicate the masses of other [stars](http://en.wikipedia.org/wiki/Star) and [galaxies](http://en.wikipedia.org/wiki/Galaxy). It is equal to the mass of the [Sun](http://en.wikipedia.org/wiki/Sun), about two [nonillion](http://en.wikipedia.org/wiki/Names_of_large_numbers) [kilograms](http://en.wikipedia.org/wiki/Kilogram) or about 332,950 times the mass of the [Earth](http://en.wikipedia.org/wiki/Earth) or 1,048 times the mass of [Jupiter](http://en.wikipedia.org/wiki/Jupiter).

**solar máxima** – máximo solar – (sol. phys.) The period of greatest solar activity in the [solar cycle](http://en.wikipedia.org/wiki/Solar_cycle) of the [sun](http://en.wikipedia.org/wiki/Sun). During solar maximum, [sunspots](http://en.wikipedia.org/wiki/Sunspot) appear. A solar maximum is the period when the sun's magnetic field lines are the most distorted due to the magnetic field on the solar equator rotating at a slightly faster pace than at the solar poles.

**solar minima** – mínimo solar – (sol. phys.) The period of least solar activity in the [solar cycle](http://en.wikipedia.org/wiki/Solar_cycle) of the [sun](http://en.wikipedia.org/wiki/Sun). During this time, [sunspot](http://en.wikipedia.org/wiki/Sunspot) and [solar flare](http://en.wikipedia.org/wiki/Solar_flare) activity diminishes, and often does not occur for days at a time.

**solar storms** – tormentas solares – (sol. phys.) Solar storm can refer to: [Solar flare](http://en.wikipedia.org/wiki/Solar_flare) (a large explosion in the Sun's atmosphere), [Coronal mass ejection](http://en.wikipedia.org/wiki/Coronal_mass_ejection) (CME)(a massive burst of solar wind associated with solar flares) and [Geomagnetic storm](http://en.wikipedia.org/wiki/Geomagnetic_storm) (the interaction of the Sun's outburst with Earth's magnetic field)

**solar streamers** –serpentina solar– (solar phys.)Along streaks seen in the solar corona during total eclipses, or in photographs from space which achieve similar effects. They are believed to outline magnetic field lines of the Sun.

**solar surface**– superficie solar – (sol. phys.)A place where an amount of high temperature gases interact with the Sun’s magnetic field and dissipate energy into its outer atmosphere.

**solar tsunami** – tsunami solar – (sol. phys.)[Earth](http://en.wikipedia.org/wiki/Earth) will be hit by a 'solar tsunami’ after the huge explosions on the surface of the sun. These eruptions occur when immense magnetic structures in the solar atmosphere lose their stability and can no longer be held down by the [Sun](http://en.wikipedia.org/wiki/Sun)'s huge gravitational pull. Just like a coiled spring suddenly being released, they erupt into space, which could trigger a huge "[coronal mass ejection](http://en.wikipedia.org/wiki/Coronal_mass_ejection)" in which huge amounts of super–hot plasma were spurted towards the earth, which then sent a “solar

**space weather** – clima espacial – (sol. phys.) The conditions on the sun and in the solar wind, magnetosphere, ionosphere, and thermosphere that can influence the performance and reliability of space–borne and ground–based technological systems and endanger human life or health.

**spiral arms galaxy** – galaxia de brazos espiralados – (astr.)Any of [the](http://dictionary.reference.com/browse/the) elongated and curved spiral sections that are connected to the center of a spiral galaxy.

**spiral barred galaxy** – galaxia espiralada barrada – (astr.)A [spiral galaxy](http://www.answers.com/topic/spiral-galaxy) with a central bar–shaped structure composed of [stars](http://www.answers.com/topic/star-1). Bars are found in approximately two–thirds of all spiral galaxies.

**spiral galaxy** – galaxia espiralada – (astr.) A lens– shaped galaxy with luminous spiral arms of gas, dust, and young stars that wind out from its nucleus. The arms apparently last for about 50 galactic rotations.

**stock –**stock –(geo.)– Rocky mountain mass of less than 100 square kilometers that is formed half a depth and that you are uncovered by action of the wind and the rain (erosion).

**strike slip fault –**fallas de deslizamiento de rumbo –(geo.)– a fault in which movement has occurred parallel to the stricke of the fault.

**strong motion seismograph** – sismógrafo de movimientos fuertes – (geo.) Seismograph, often portable and self-activating, that records the máximum ground acceleration causaded by an earthquake.

**subductionzone** – zona de subsucción –(geo.)– An elongate zone in which one lithospheric plate descends beneath another. A subduction zone is tipically marked by an oceanic trench, lines of volcanoes, and crustal deformation associated with mountain building.

**Sun’s atmosphere**– atmósfera solar – (sol. phys.) The part of the Sun above the visible photosphere, merging eventually into a solar wind. The solar atmosphere contains only a negligible fraction of the Sun’s mass and consists mainly of the chromospheres, the part of the atmosphere seen at solar eclipses and visible in between by users of special telescopes designed to cut out the Sun’s disc from view.

**Sun’s chromoshere**– cromósfera solar – (sol. phys.)A layer of the Sun’s atmosphere between the photosphere and the corona. It is normally invisible because of the glare of the photosphere shining through it, but it is briefly visible near the beginning and end of a total solar eclipse as a spiky red rim around the Moon’s disk.

**Sun’s corona** – corona solar – (sol. phys.) The extended outer atmosphere of the Sun. It has a temperature of millions of degrees, but is 10 million times less dense than the atmosphere of the Earth at sea level.

**Sun’s magnetic field**– campo magnetico solar – (sol. phys.)A region of space surrounding the Sun, where magnetic forces predominates.

**Sun’s photosphere**– fotósfera solar – (sol. phys.)A specific layer in the Sun’s atmosphere from which most of the visible light come toher envelope of gases around Sun.

**supernova remanent** – remanente de supernova – (astrophys.) A violent detonation of Stars which are considerably more massive than our Sun that can most probably not evolve quietly into an end state as a white dwarf. The star ejects the very greatest part of the stellar matter in a violently expanding shell.

**surrounding rock**– roca circundante –(geo.)– A great repository of molten rock called magma. If the magma finds a way out to the surface, the result is a volcanic eruption.

## T

**tectonic creep –** creptación tectónica –(geo.)– slow, apparently continuos movements along a fault (as opposed to the sudden ruptura that occursduring an earthquake)

**tectonic plate –** placa tectónica –(geo.)– a lab, a broad segment of the lithosphere (including the rigid upper mantle, plus oceanic and continental crust) that floats on the underlying asthenosphere and moves independently of other plates.

**telescope filter** – filtro del telescopio – (astr.) A thin sheet of material placed over the full aperture of the telescope.

**thrust faults –**fallas de empuje –(geo.)– A low–angle fault (45 degrees or less) in the hanging wall has moved upward in the relation to the footwall. Thrust faults are characterized by horizontal compression rather than by vertical displacement.

**total eclipse – eclipse total – (astr.) A** eclipse of the Sun in which the Moon completely hides the solar photosphere, or an eclipse of the Moon in which it passes completely into the umbra behind the Earth.

**transit – tránsito – (astr.) The** passage of a celestial body across the meridian, or an instrument used to observe transits. Also passage of one body in front of another (without eclipsing it): for example, transits of Mercury across the face of the Sun.

**triaxial galaxy** – galaxia triaxial – (astr.)A galaxy which has three axes.

**troposphere – tropósfera – (astr.) A** layer of the Earth’s atmosphere, from sea level to about 10–15 km. Altitude, containing most of the weather.

## U

**ultrabasic rock**– roca ultrabasico –(geo.)– An igneous rock with a very low silica content and rich in minerals such as hypersthene, augite and olivine.

**ultraviolet radiation** – radiación ultravioleta – (phys.) Tthe range of invisible radiation wavelengths from about 4 nanometers, on the border of the x–ray region, to about 380 nanometers, just beyond the violet in the visible spectrum.

**universal Time** – tiempo universal – (astr.)Also known as Greenwich Mean Time, this is local time on the Greenwich meridian. Universal time is used by astronomers as a standard measure of time.

**uplift** – levantamiento –A structurally high area in Earth's crust. Formed by movements that bend the crust into a structure such as a dome or an arch.

**Uranus** – Urano – (astr.) The seventh planet from the sun in our solar system. This huge, icy planet is covered with clouds and is encircled by a belt of 11 rings and 22 known moons. Uranus' blue color is caused by the methane (CH4) in its atmosphere; this molecule absorbs red light. Uranus is about 31,690 miles (51,118 km) in diameter. This is about 4 times the diameter of the Earth.   
This gas giant is the third–largest planet in our Solar System (after Jupiter and Saturn).

## V

**variable star – estrella variable – (astr.)**A star whose luminosity changes. This designation will include stars with explosive changes ( novae and supernovae) as well as cyclic changes (Cepheids and RR Lyrae).

**Venus** –Venus –(astr.) The second closest planet to the Sun and almost a twin of Earth in size. It is the brightest object in the sky after the Sun and the Moon, and is popularly known as the Evening Star or the Morning Star depending on when it is on view. Venus has a slow retrograde (east–to–west) spin, opposite in direction to that of every other planet in the solar system and presumably the result of a massive ancient collision.

**Van Allen belts – cinturón de Van Allen – (geophys.)**A region around the Earth where the Earth’s magnetic field confines high–speed electrically charged particles, mostly protons and electrons.

**visual binary star – estrella binaria visual – (astr.) A**binary star whose two components can be seen by telescope to be separate.

**volcanic activity**– actividad volcanica –(geo.)– The output of gaseous products, liquid and solid forms released by the explosions and paroxysms of the eruptions. Volcanoes can be classified in different ways taking into consideration different factors. With respect to the frequency of eruptive activity of volcanoes include: active volcanoes, dormant volcanoes and extinct volcanoes.

**volcanic eruptions –** erupsiones volcánicas –(geo.)– Geologic processes. The sudden occurrence of a violent discharge of steam and volcanic material, the location is in areas with tectonic activity.

**volcanic rocks**– rocas volcanicas –(geo.)– see extrusive igneous

**volcanism**– vulcanismo –(geo.)– The processes by which magma and gases are transferred from the Earth's interior to surface.

## W

**watershed –**cuencas hidrográficas –(geo.)– The geographic area that contributes runoff to a stream. It can be outlined on a topographic map by tracing the points of highest elevation (usually ridge crests) between two adjacent stream valleys. The watershed of a large river usually contains the watersheds of many smaller streams.

**weather** – clima – (phys.) The ever–changing combination of winds, clouds, temperature, and pressure at a particular location and time. Short timescale description of an atmosphere in contrast to [climate](http://www.astronomynotes.com/glossary/glossc.htm#climate).

**Wien's law** – ley de Wien – (astr.) The relation between the wavelength of maximum emission in a [thermal spectrum](http://www.astronomynotes.com/glossary/glosst.htm#thermalspectrum) and its temperature: [wavelength](http://www.astronomynotes.com/glossary/glossw.htm#wavelength) peak in [nanometers](http://www.astronomynotes.com/glossary/glossn.htm#nanometer) = 2.9× 106/temperature in [Kelvin](http://www.astronomynotes.com/glossary/glossk.htm#kelvinscale).

**Wolf Rayet nebulae** – nebulosa Wolf– Rayet – (astr.)Stars of some age that have ejected matter they now cause to shine.

## X

**X–Band – banda X – (phys.)** A radio band at a wavelength of 3.7 cm (8085 MHz).

**X–Ray Pulsars – pulsars de rayos X – (astrophys.)** Pulsars that radiate in the X–ray region of the spectrum. Best verified examples are Her X–1 and Cen X–3. They are thought to be rotating, strongly magnetic neutron stars of about 1 *M*Descripción: smsun in a grazing orbit around a more massive star from which they are accreting matter.

## Y

**yellow dwarft** – enana amarilla – (astr.) A classification of [star](http://en.mimi.hu/astronomy/star.html) which is undergoing[hydrogen](http://en.mimi.hu/astronomy/hydrogen.html)–[helium](http://en.mimi.hu/astronomy/helium.html) conversion. [Sol](http://en.mimi.hu/astronomy/sol.html) was a well–known yellow dwarf [star](http://en.mimi.hu/astronomy/star.html).

**yellow supergiant** – supergigante amarilla – (astr.) A supergiant star with a spectral type of G.

**Yerkes System** – sistema de Yerkes – (astr.) A spectral classification system for stars.

**Young Thin Disk** – disco delgado de Young – (astr.) A subpopulation in the thin disk whose stars range in age from 0 to 1 billion years old. The stars of the young thin disk have a scale height of 350 light–years and have very circular orbits around the Galaxy.

## Z

**zirconium**– Circonio –(geo.)– A mineral, zirconium silicate. A hard mineral with a high index of refraction that is used as a gemstone and as an ore of zirconium.

**zodiac – zodiaco – (astr.) A**band on the sky, centered on the ecliptic, and about 18 degrees wide, through which the Sun, Moon and planets appear to move through the course of each year.

**zodiacal light – luz zodiacal –** (astr.) A faint glow seen at night near the ecliptic, probably sunlight reflected by interplanetary dust.

**zone of ablation**– zona de ablación –(geo.)– area of a glacier where losses of ice from melting, evaporation, and sublimation exceed additions of snow annually.

**zone of avoidance**– zona de vacío – (astrophys.) A region near the Milky Way where obscuration by interstellar dust is so heavy that few or no exterior galaxies can be seen.

# PARTE II

**INDICE**

* Agujeros Negros
* Tiempo
* Eclipses
* Prospección de yacimientos epitermales de oro.



Universidad Nacional de San Juan

Facultad de Ciencias Exactas Físicas y Naturales

**GLOSSARY OF**

## BLACK HOLES

**TERMS**

TOMO II

PARTE 2

|  |
| --- |
| Romina Soledad Garcia  Registro 15667 |

AÑO 2011

***A***

**active galactic nuclei** – núcleo galáctico active –(astrophys.) A monster black hole that can spew out more radiation than our entire galaxy does and form a patch of space no larger than our Solar System.

**active galaxy** – galaxia active –(astr.) A galaxy whose central region exhibits strong emission activity, from radio to x–ray frequencies, probably as a result of gravitational collapse; this category includes M82 galaxies, Seyfert galaxies, N galaxies, and possibly quasars.

**atomic nucleus** – núcleo atómico –(phys.) The central or brightest part of a nebula or galaxy.

***B***

**black holes** – agujero negro – (astrophys.) The evolutionary end point of massive stars.

***C***

**Chandra X ray observatory –** observatorio de rayos X Chandra –(astrophys.) A large and very sensitive X–ray telescope, launched in July 1999 into a highly elliptical orbit that carries it as far as 139,000 km from Earth and enables it to make long uninterrupted observations. Chandra's telescope uses four pairs of nearly cylindrical mirrors with diameters of 0.68 to 1.4 m to direct X rays in the energy range 0.1 to 10 keV onto the observatory's four science experiments. The spacecraft is one of NASA's four [Great Observatories](http://www.answers.com/topic/great-observatories) and was named in honor of Subrahmanyan [Chandrasekhar](http://www.answers.com/topic/subrahmanyan-chandrasekhar).

***E***

**event horizont** – horizonte de eventos – (astrophys.) The black hole surface.

***G***

**galactic center** – centro galáctico – (astr.) The gravitational center of the Milky Way Galaxy; the sun and other stars of the Galaxy revolve about this center.

galactic nucleus – núclo galáctico – (astr.) The center area in the galaxy about which there is a large spherical distribution of stars and from which the spiral arms emanate.

**galaxy** – galaxia – (astr.) A large system of stars, together with interstellar material and (at least in some cases) [dark matter](http://www.answers.com/topic/dark-matter), held together by gravity. There are three basic types: the [spiral galaxy](http://www.answers.com/topic/spiral-galaxy), the [elliptical galaxy](http://www.answers.com/topic/elliptical-galaxy), and the [irregular galaxy](http://www.answers.com/topic/irregular-galaxy). A [lenticular galaxy](http://www.answers.com/topic/lenticular-galaxy) is midway in form between a spiral and an elliptical. Galaxies range in size from the smallest [dwarf galaxies](http://www.answers.com/topic/dwarf-galaxy) only a few.

**gravitational force** – fuerza gravitacional –(astrophys.) The force on a particle due to its gravitational attraction to other particles.

hundred light–years across with just a few million stars, through normal galaxies like our own [Milky Way Galaxy](http://www.answers.com/topic/milky-way-galaxy-astro-in-encyclopedia), with a few hundred billion stars, to giant ellipticals spanning over hundreds of thousands of light–years and containing several trillion stars. Various schemes have been devised to categorize them.

***K***

**kinetic energy** – energía cinética –(phys.)The energy possessed by a body because of its motion, equal to one half the mass of the body times the square of its speed.

***L***

**light echoes** – ecos de luces –(phys.) The reflection of light from a primary source, such as a bright star, off another object such as a dust cloud or planet in its vicinity. Remarkable light echoes were seen from two sheets of dust near [Supernova 1987A](http://www.answers.com/topic/supernova-1987a-astronomy).

**light year** – año luz – (astr.) The distance that light travels in a vacuum in one year, approximately 9.46 trillion (9.46 × 1012) kilometers or 5.88 trillion (5.88 × 1012) miles.

***M***

**Milky way** – Vía Láctea –(astr.) The galaxy of which the sun and solar system are a part, seen as a broad band of light arching across the night sky from horizon to horizon; if not blocked by the horizon, it would be seen as a circle around the entire sky. Although its motion is not readily apparent, the entire galaxy is rotating about the Milky Way's center. Relative to the universe, the galaxy is moving at a speed of c.370 mi per sec (c.590 km per sec) in the same direction that the constellation Leo lies relative to the earth; it is also moving at c.60 mi per sec (c.100 km per sec) relative to the center of mass of the [Local Group](http://www.answers.com/topic/local-group) of galaxies. The sun, traveling at a speed of c.150 mi per sec (c.240 km per sec) in a nearly circular orbit, takes 200–230 million years to complete one revolution.  
**molecular cloud** – nube molecular – (astr.) A dense cloud of interstellar gas in which molecules have formed in appreciable abundance.

***N***

**neutron star** – estrella de neutrons –(astrophys.) A celestial body consisting of the superdense remains of a massive star that has collapsed with sufficient force to push all of its electrons into the nuclei that they orbit, thus leaving only neutrons, and having a powerful gravitational attraction from which only neutrinos and high–energy photons can escape, rendering the body detectable only by x–ray.

***S***

**Sagittarius A** – Sagitario A – (astrophys.) An intense radio source in the constellation Sagittarius, apparently comprising a gaseous envelope surrounding a small dense core that is believed to constitute the center of the Milky Way Galaxy.

**Sagittarius B2** – Sagitario B2 –(astrophys.) The richest molecular radio source in the Galaxy, located near the galactic center and consisting of a massive, dense complex of at least seven HII regions and molecular clouds.

**Schwarzschild radius** – radio de Schwarzschild –(astrophys.) The radius of a collapsing celestial object at which gravitational forces require an escape velocity that exceeds the velocity of light, resulting in a black hole.

**singularity** – singularidad –(astrophys.) A region where the force of gravity is so strong that not even light can escape.

**star** –estrella –(astrophys.) A self–luminous celestial body consisting of a mass of gas held together by its own gravity in which the energy generated by nuclear reactions in the interior is balanced by the outflow of energy to the surface, and the inward–directed gravitational forces are balanced by the outward–directed gas and radiation pressures.

**supermassive black hole** – agujero negro supermasivo –(astrophys.) A black hole formed from the collapse of an object, such as a massive gas cloud, significantly more massive than typical stars. By ‘supermassive’ astronomers usually mean greater than 105 solar masses. Such objects can increase their mass by accreting material from their surroundings, and the energy released in this process may be responsible for the activity seen in galaxies and quasars.

**supernova explosion** – explosión de supernova –(astrophys.)A rare celestial phenomenon involving the explosion of most of the material in a star, resulting in an extremely bright, short–lived object that emits vast amounts of energy.  
**stellar remnant** – remanente estelar –(asrotphys.)  A collective term used to describe the stars that are left when a [High Mass Star](http://library.thinkquest.org/3103/nonshocked/topics/highmassstar/highmassstars.html) or a [Low Mass Star](http://library.thinkquest.org/3103/nonshocked/topics/lowmassstars/lowmassstars.html) dies. Included under this phrase are [Black Holes](http://library.thinkquest.org/3103/nonshocked/topics/blackholes/blackholes.html), [Neutron Stars](http://library.thinkquest.org/3103/nonshocked/topics/neutronstars/neutronstars.html), and[White Dwarfs.](http://library.thinkquest.org/3103/nonshocked/topics/whitedwarfs/whitedwarfs.html)

***T***

**tidal forces** – fuerzas de marea –(phys.) Any of various small gravitational forces acting on an extended body as a result of the varying distance between the source of the gravitational force, such as the moon, and the different parts of the extended body, such as the earth's oceans closest to and farthest from the Moon.

***V***

**visual spectrum** – espectro visual –(astr.) The range of wavelengths of visible radiation. A display or graph of the intensity of visible radiation emitted or absorbed by a material as a function of wavelength or some related parameter.



Universidad Nacional de San Juan

Facultad de Ciencias Exactas Físicas y Naturales

**GLOSSARY OF**

## TIME

**TERMS**

TOMO II

PARTE 2

|  |
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AÑO 2011

***A***

**anomalistic month** - mes anomalístico - (astr.) The interval between two successive perigee passages of the Moon.

**anomalistic year -** año anomalistico - (astr.) The interval between two successive perihelion passages of the Moon.

**aphelion** - afelio - (astr.) In the orbit of a solar system body, the most distant point from the Sun.

**ascending node** - nodo ascendente - (astr.) In the orbit of a solar system, the point where the body crosses the ecliptic from south to north; for a star, out of the plane of the sky toward to observer.

***B***

**besselian year -** año Beseliano - (astr.) The period of one complete circuit of the fictitious mean Sun in right ascension beginning at the instant when the right ascension is 18h40m.

***C***

**celestial equator** - Ecuador celeste - (astr.) The great circle along which the plane of Earth´s equator, if extended, would cut the celestial sphere.

**celestial longitude** - longitude celeste - (astr.) Angular distance along the ecliptic from the vernal equinox eastward.

**celestial meridian** - meridiano celeste - (astr.) The great circle on the celestial sphere which passes trough the celestial poles and the zenith of the Observer.

**celestial poles** - polos celestes - (astr.) The two points at which the Earth’s axis of rotation, if extended, would intersect the celestial sphere.

***D***

**declination** - declinación - (astr.) Angular distance north(+), or south(-) of the celestial equator to some object, measured in degrees, minutes, and seconds of arc an hour circle passing through the object, declination is analogous to latitude on the Earth’s surface.

***E***

**ecliptic** - eclíptica (astr.) - Plane of the Earth’s orbit.

ephemeris second - segundo de efemerides - (astr.) The length of a tropical second on 1900 January 0.5 ephemeris time.

**ephemeris time** - tiempo de efemerides - (astr.) Time based on the ephemeris second, time marked out by the motion of Earth around the Sun. Ephemeris time is determined primarily from observations of the Moon against the background of stars, whereas Universal Time is determined from observations of the stars and depends on the Earth’s current rate of rotation.

**epoch** - época - (astr.) A point of time selected as a fixed reference.

equation of time - ecuación del tiempo - (astr.) The difference between apparent and mean solar time. At Greenwich, apparent solar noon varies between 11h40m05s and 12h14m19s. Maximum contribution from Earth’s orbital eccentricity ~ 8 min; from Earth’s obliquity, ~ 10 min. apparent and mean solar time agree 4 times a year.

**equinox** - equinoccio - (astr.) Either of the two points on the celestial sphere where the celestial equator intersects the ecliptic.

***H***

**hour angle** - ángulo horario - (astr.) The angle between the meridian and hour circle. The hour angle of stars depends both on time and on the observer’s location. It can be determined by subtracting the star’s right ascension from the local sidereal time.

***I***

**international system of units** - sistema internacional de unidades - (astr.) A practical system of units of measurement adopted in 1960 by the 11th international general conference of weights and measurements. The seven base units are the meter, the kilogram, the second, the ampere, the Kelvin, the mole, and the candela.

***J***

**julian date** - día juliano - (astr.) The julian date Lumber followed by the fraction of the day elapsed since the proceeding noon.

***L***

**lunisolar presesión** - precesion lunisolar - (astr.) The component of general precession that is caused by the gravitational coupling between the Moon and the Earth and between the Sun and the Earth. Lunisolar precession causes the equinox to move westward along the ecliptic at the current rate about 50” per year.

***M***

**mean solar day** - día solar medio - (astr.) The mean length time between two successive culminations of the Sun, the mean period from apparent noon to apparent noon.

**mean solar second** - segundo solar medio - (astr.) 1/86400 of a mean solar day.

mean sun - sol medio - (astr.) A fictitious body that moves eastward in a circular orbital long the celestial equator, making a complete circuit with respect to the vernal equinox in a tropical year.

***N***

**nadir** – nadir - (astr.) The point on the celestial sphere directly opposite to the zenith- below observer’s feet, in the direction of gravity

**nodo** - nodo - (astr.) The two point where the body’s orbit intersects the ecliptic.

**nutation** - nutacion - (astr.) A small irregular oscillation in the processional motion of Earth’s rotational axis, caused primarily by lunar perturbations. It has a principal period of 18.6 yr, and moves the equinox as much 17” ahead, of or behind its mean position. Constant of nutation, at standard epoch 2000, N=9”.2109.

***P***

**proper time** - tiempo propio - (astr.) The timelike invariant spacetime interval between the points along the trajectory of a particle.

***R***

**relativity** - relatividad - (astr.) The special theory concerns time and distance measurements by two observers in uniform relative motion and clarifies the notion of simultaneity relative to such observers. The general theory of relativity’s concerned with the generalization of Newton’s law of gravitation when masses moving under their mutual influence acquire velocities comparable to that of light; its basis postulate, derived from the equality of the inertial and gravitational mass, is that all accelerations are metrical in origin.

**right ascension** - ascension recta - (astr.) Angular distance (in hours, minutes and seconds) along the celestial equator eastward from the vernal equinox to the hour circle of the object. It is analogous to terrestrial longitude.

***S***

**sidereal day** - día sidéreo - (astr.) The mean length of time between two successive meridian transits of the venal equinox. Because of precession the sidereal day is about 0.0084 second shorter than the period of rotation of Earth relative to a fixed direction.

***T***

**tropical year** - año tropical - (astr.) The interval of time between two successive vernal equinox- it is equal to 365.242 mean solar days.

***V***

**vernal equinox** - equinoccio vernal - (astr.) The point of intersection between the ecliptic and the celestial ecuator, where the Sun crosses from south to north. By definition, the vernal equinox is at RA=0°, D=0°

***W***

**world line** - linea mundial - (astr.) The graph in spacetime coordinates which represents any continuous sequence of events relating to a given particle. In general relativity, all material particles have timelike world lines, photons have null world lines, and tachyons have spacelike world lines.

***Z***

**ZENITH** - cenit - (astr.) The point on the celestial sphere directly above the observer’s head, opposite to the direction of gravity.



Universidad Nacional de San Juan

Facultad de Ciencias Exactas Físicas y Naturales

**GLOSSARY OF**

## ECLIPSES

**TERMS**

TOMO II

PARTE 2

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AÑO 2011

***A***

**apogee** – apogeo – (astr.)For the [Moon](http://astronomy.swin.edu.au/cosmos/M/Moon) or an artificial satellite moving around the Earth in an [elliptical](http://astronomy.swin.edu.au/cosmos/E/Ellipse) [orbit](http://astronomy.swin.edu.au/cosmos/O/Orbit), the[distance](http://astronomy.swin.edu.au/cosmos/D/Distance) between the object and the Earth changes throughout the [orbit](http://astronomy.swin.edu.au/cosmos/O/Orbit). The point of maximum separation from the Earth is known as the [apogee](http://astronomy.swin.edu.au/cosmos/A/Apogee) (from the Greek apo = away from). At this point in the [orbit](http://astronomy.swin.edu.au/cosmos/O/Orbit), the object is moving at its slowest [speed](http://astronomy.swin.edu.au/cosmos/S/Speed) ([Kepler's Second Law](http://astronomy.swin.edu.au/cosmos/O/Orbital+Elements)). The [apogee](http://astronomy.swin.edu.au/cosmos/A/Apogee) refers specifically to [orbits](http://astronomy.swin.edu.au/cosmos/O/Orbit) around the Earth, and is equivalent to the [apoapsis](http://astronomy.swin.edu.au/cosmos/A/Apoapsis) of a general [orbit](http://astronomy.swin.edu.au/cosmos/O/Orbit). The point of closest approach between the Earth and a[celestial](http://astronomy.swin.edu.au/cosmos/C/Celestial) object [orbiting](http://astronomy.swin.edu.au/cosmos/O/Orbit) it is the [perigee](http://astronomy.swin.edu.au/cosmos/P/Perigee).

***C***

**corona** – corona – (astr.) Is a type of [plasma](http://en.wikipedia.org/wiki/Plasma_(physics)) "[atmosphere](http://en.wikipedia.org/wiki/Celestial_body%27s_atmosphere)" of the [Sun](http://en.wikipedia.org/wiki/Sun) or other celestial body, extending millions of kilometers into space, most easily seen during a total [solar eclipse](http://en.wikipedia.org/wiki/Solar_eclipse), but also observable in a [coronagraph](http://en.wikipedia.org/wiki/Coronagraph).

***E***

**Earth** – la tierra – (astr.) The third major planet from de Sun, and the largest of the four inner or terrestrial planets.

***F***

**Full moon** – luna llena – (astr.) Is a [lunar phase](http://en.wikipedia.org/wiki/Lunar_phase) that occurs when the [Moon](http://en.wikipedia.org/wiki/Moon) is on the opposite side of the [Earth](http://en.wikipedia.org/wiki/Earth) from the [Sun](http://en.wikipedia.org/wiki/Sun).

***M***

**Moon** – luna – (astr.) Is [Earth](http://en.wikipedia.org/wiki/Earth)'s only known [natural satellite](http://en.wikipedia.org/wiki/Natural_satellite), and the [fifth largest](http://en.wikipedia.org/wiki/List_of_natural_satellites) satellite in the [Solar System](http://en.wikipedia.org/wiki/Solar_System).

***N***

**natural satellite** – satellite natural – (astr.) A celestial body in orbit around a planet is a satellite. The Earth has one called Moon.

**new Moon** – luna nueva – (astr.) In astronomical terminology, the new moon is the [lunar phase](http://en.wikipedia.org/wiki/Lunar_phase) that occurs when the [Moon](http://en.wikipedia.org/wiki/Moon), in its monthly orbital motion around [Earth](http://en.wikipedia.org/wiki/Earth), lies between Earth and the [Sun](http://en.wikipedia.org/wiki/Sun), and is therefore in [conjunction](http://en.wikipedia.org/wiki/Conjunction_(astronomy_and_astrology)) with the Sun as seen from Earth. At this time, the dark (unilluminated) portion of the Moon faces almost directly toward Earth, so that the Moon is not visible to the naked eye.

**node** – nodo – (astr.) In astronomy, the intersection of the orbit plane of some celestial body, such as the Moon, a planet, or comet, with the plane of the ecliptic (the apparent path of the Sun among the stars) as projected on the [celestial sphere](http://www.britannica.com/EBchecked/topic/101326/celestial-sphere). The [ascending node](http://www.britannica.com/EBchecked/topic/37815/ascending-node) is the one where the body crosses from the south to the north side of the ecliptic, the opposite one being the [descending node](http://www.britannica.com/EBchecked/topic/158869/descending-node). An eclipse of the Sun or Moon can occur only when the Moon is at or near a node; similarly, only when one of the [inner planets](http://www.britannica.com/EBchecked/topic/588274/terrestrial-planet) is at or near a node can it appear in transit across the Sun.

***P***

**perigee** – perigee – (astr.) Is the point at which an object makes its closest approach to the Earth. Often the term is used in a broader sense to define the point in an orbit where the orbiting body is closest to the body it orbits.

***S***

**Sun** – el sol – (astr.) The source of our heat and light .It is a dramatic arena where scientists can observe the beautiful and bewildering interaction of matter and energy on an immense scale. The Sun is the star at the centre of the Solar System around which all others Solar System bodies revolve in their orbits.

***U***

**umbra and penumbra** – Umbra y Penumbra – (astr.) Are the names given to three distinct parts of a [shadow](http://en.wikipedia.org/wiki/Shadow), created by any light source.



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**GLOSSARY OF**

## EPITHERMAL GOLD DEPOSITS

**TERMS**

TOMO II

PARTE 2

|  |
| --- |
| Leandra Palavecino  Registro 15780 |

AÑO 2011

***B***

**banded iron formations**– formación de bandas de hierro– (geo.) Are distinctive units of sedimentary rock that are almost always of Precambrian age

**brownfield** – brownfield –(geo.) Erstwhile commercial or industrial site now abandoned or sparingly utilized due to the presence of asbestos or some other environmental contaminant.

***C***

**Carlin–type gold deposits** – depósito de oro tipo Carolin – (geo.) Carlin–type gold deposits are sediment –hosted disseminated gold deposits. These deposits are characterized by invisible (typically microscopic and/or dissolved) gold in pyrite and arsenopyrite. The deposit is named after the first large deposit of this composition found in the Carlin Unconformity, Nevada.

***E***

**eluvial deposit** – depósitos eluvial– (geo.) They are those geological deposits and soils that are derived by in situ weathering or weathering plus gravitational movement or accumulation.

***F***

**fractional crystallization** – cristalización fraccionaria – (chem.) Theprocess of separatingthe components of asolution on the basisof their differentsolubilities, through evaporation of thesolution until theless solublecomponentcrystallizes.

***G***

**geochemistry**– geoquimica –(chem.)The study of the chemistry of the Earth and within solid bodies of the solar system, including the distribution, circulation and abundance of elements (and their ions and isotopes), molecules, minerals, rocks and fluids.

**geological province**– provincia geologica –(geo.) A geologic or geomorphic province is a spatial entity with common geologic or geomorphic attributes. A province may include a single dominant structural element such as a basin or a fold belt, or a number of contiguous related elements.

**greenfield** – greenfield –(geo.)An area of agricultural or forest land, or some other undeveloped site earmarked for commercial development or industrial projects.

***L***

**laterite deposits** –depósito de laterita – (geo.) Weathered material composed principally of the oxides of iron, aluminum, titanium, and manganese; laterite ranges from soft, earthy, porous soil to hard, dense rock.

**liquation**– licuación –(chem)To separate by melting the more fusible constituents while leaving the less fusible ones solid.

**lixiviation**– lixiviación –(geo.)The removal of soluble constituents from a rock or soil by moving ground water or hydrothermal fluids.

**lode**– veta –(geo.) A rich accumulation of minerals in solid rock. Frequently in the form of a vein, layer or an area with a large concentration of disseminated particles.

***M***

**metamorphic**– metamorfismo –(geo.) Alteration of the minerals, textures and composition of a rock caused by exposure to heat, pressure and chemical actions.

**meteoric water**– agua meteórica –(geo.)Ground water that has recently originated from the atmosphere.

***O***

**ore**– mena –(geo.) A mineral or an aggregate of minerals from which a valuable constituent, especially a metal, can be profitably mined or extracted.

**ore grade** – grado de mineral – (geo.) Ore grade is a measure that describes the concentration of a valuable natural material (such as metals or minerals) in its surrounding ore.

***P***

**placer deposit** – depósito de placer – (geo.) It is an accumulation of valuable minerals formed by gravity separation during sedimentary processes.

**podiform chromite deposits**– depósito podiforme de cromita – (geo.) The deposits comprise podiformes massive chromite bodies of irregular shape, bolsoneros to lenticular, found predominantly in the sectors of rocks dunites (olivine rich) complexes Obducta ophiolites. Podiformes deposits and associated rocks are arranged along major fault zones in orogenic belts.

***R***

**remote sensing**– teletección –(geo.)It is a measurements made from large distances, a from high flying aircraft or Earth satellites. Especially refers to measurements of either natural radiation or radiation from a source in the sensor which has been reflected back from Earth.

**rim of the fire**– cinturón de fuego –(geo.)An extensive zone of volcanic and seismic activity that coincides roughly with the borders of the Pacific Ocean.

***S***

**stockwork** – stockwork –(geo.) A metalliferous deposit characterized by the impregnation of the mass of rock with many small veins or nests irregularly grouped. This kind of deposit is especially common with tin ore. Such deposits are worked in floors or stories.

**sulfide minerals** – minerales de sulfuros – (geo.) A mineral compound characterized by the linkage of sulfur with a metal or semimetal.