Solar Energy　　太陽能

7.1 General Terms	7.1 一般名詞
7.1.1 Global radiation The sum of direct and diffuse radiation incident on a horizontal plane at a given time received from the sum and sky respectively.	7.1.1 全日射量　單位時間內，太陽直射及天空漫射到達水平面的總輻射量。
7.1.2 Direct radiation That part of incident solar radiation originating directly from the solar disc that has not been subject to change in direction in its passage from the solar disc other than due to the effects of refraction at low elevations.	7.1.2 直達日射量　由太陽直射而來，不改變輻射方向的太陽輻射量。
7.1.3 Diffuse radiation That part of incident solar radiation emanating from all directions (except directly from the direction of the solar disc) after scattering in the atmosphere (due to molecules, aerosols, clouds)and possible reflection at the earth's surface (due to the land, the sea, trees, buildings).	7.1.3 漫射日射量　由太陽輻射經大氣吸收、散射後之間接天空輻射與由地面及地上物體反射之輻射總量。
7.1.4 Infrared radiation Radiation of wavelengths between 760 nm and I mm. Note 1 A distinction requires to be made between the infrared range of solar radiation (760 nm to 5 μm approximately) and that of terrestrial radiation (above 5μm). Note 2 Between 50 μm and 1 mm the radiation is more generally referred to as "far infrared" or "submillimetre" radiation.	7.1.4 紅外線　波長在 0.7μm 到 10μm 間的輻射線。 （註 1）要區別太陽輻射之紅外線波長範圍（0.76μm 到 5μm）與地面輻射之紅外線波長範圍（5μm 以上）。 （註 2）在 50μm 與 10μm 間的輻射通常稱為「遠紅外線」或「次釐」輻射（因其波長短於 10μm。
7.1.5 Irradiance; radiant-flux density The quantity of solar energy falling per unit area of plane surface, per unit time, expressed in W/m².s or J/m².s. Note Time integrated solar irradiance is termed irradiation or insolation; however, use of the term irradiance is preferred, it	7.1.5 輻射量，輻射通量（密度）　單位時間照射在單位面積上之太陽能，其單位為 W/m²或 J/m²Sec（註）某段時間內太陽輻射之總量稱為照射量或日射量；然而以輻射量一詞較為正確，此一名詞意指特定的時段使用之時間單位應加註明。通常使用的時間單位是小時、日或月。

being referred to the relevant time interval. If another time unit than the second is used, this must be stated. In practice commonly used units are hourly, daily or monthly irradiations.	
7.1.6 Solar constant The intensity of solar radiation outside the earth's atmosphere at the mean distance between the earth and the sun, on a surface normal to the radiation, is taken to be equal to 1367±5W/m².	7.1.6 太陽常數　以太陽與地球平均距離為基準，地球大氣層外表面的垂直入射輻射量約為 1367±5w/m²。
7.1.7 Solar altitude The angle between the line joining the centre of the solar disc to the point of observation and the horizontal plane through the point of observation. Note In the same system of horizontal celestial coordinates, the azimuth is the angle formed by the vertical plane passing through the sum and north-south vertical plane. The azimuth enables the path of the sun to be transferred to the horizontal plane.	7.1.7 太陽高度角　日輪中心與觀測點的聯線與水平面間的夾角。
7.1.8 Angle of incidence (for direct radiation)the angle between the line joining the centre of the solar disc to a point to an irradiated surface and the normal to the irradiated surface.	7.1.8 入射角（直達日射量）　日輪中心點與被照射平面上一點的連線與被照射平面法線之夾角。
7.1.9 Solar declination Angular distance of the centre of the solar disc north or south of the celestrial equator when the sun is on the meridian. Note the declination varies with the time of the year (+ 23º45' at the summer solstice to - 23º45' at the winter solstice; at the equinoxes it is zero).	7.1.9 太陽赤緯　當太陽在子午線上時，太陽日輪中心線與地球赤道面之夾角。（註）赤緯在一年中經常變化由（夏至 +23°34′到冬至–23°45′，春分與秋分為 0）。
7.1.10 Albedo The ratio of the solar radiation reflected or scattered in all directions from a surface to the total solar radiation, direct or scattered, incident on the surface.	7.1.10 反照率　地面反射及散射到天空中各方向輻射量與全日射量的比值。

Note Albedo as a generalized concept relates to reflectance from a surface across the whole spectral range covered by solar radiation and neglects variations due to angles of incidence; the albedo of a specific surface, however, can vary markedly with angle of incidence.	
7.1.11 Clear sky The state of the sky when it is cloudless.	7.1.11 晴空　天空中完全無雲的狀況。
7.1.12 Turbidity coefficient A coefficient that attributes a value to the quantity of aerosols (essentially scatter-producing microparticles), normal to the point of measurement. This coefficient enables the extinction of direct radiation due to scatter by aerosols to be calculated, not only in respect of a specific wavelength but also of each wavelength (and hence of the whole solar spectrum), if the variation of scattering with wavelength is known. Note ANGSTRÖM`s turbidity coefficient, β, corresponds to wavelength of 1 μm and is generally in the range between 0.02 (very pure atmosphere) and 0.20 (polluted sky). Other turbidity coefficients are also employed. (β SCHUEPP, β VALKO). However, only the effect of aerosols is taken into consideration by these various coefficients, whereas the extinction of direct radiation depends as strongly on molecular diffusion and on absorption by atmospheric gases (ozone, water vapour, carbon dioxide).	7.1.12 混濁係數　觀測點垂直向上時，與空氣懸浮物含量有關之係數。此一係數可用來計算各種波長下因懸浮物散射所引起的直達日射衰減量。 （註）ANGSTRÖM`s 混濁係數“β”，對於 1μm 波長的光，其數值範圍在 0.02（清潔的大氣）到 0.2 間（污染的天空）。其他污濁係數亦被採用（β SCHUEPP,β VALKO）。然而，這些係數只討論懸浮物的效果，其實大氣中的氣體（臭氧、水蒸氣、二氧化碳）分子的散射及吸收，都會減少直達日射量。
7.1.13 Turbidity factor (Linke turbidity factor) the number of atmospheres postulated as being pure and dry that would be required cumulatively to achieve at the earth's surface the same degree of extinction of	7.1.13 混濁因數　到達地面之直達日射量被衰減部分與大氣清澈乾燥條件下日射量之比。 （註）此一因數由臭氧、水汽以及懸浮物含量決定；此外與太陽的高度亦有關係，

direct solar radiation as is encountered in reality. Note This factor is dependent on the quantity of ozone, water vapour and aerosols; it also depends to a slight degree on the height of the sun and hence varies according to the time of day (assuming unchanged atmospheric conditions). It is an empirical factor of practical value for energy applications. Values for the factor generally range between 2 (pure air) and 6 (polluted air).	因此會隨時間而改變。此因數是能源應用實際數值的實驗因數。數值通常在 2（純空氣）與 6（污染空氣）間。
7.1.14 Emissivity The ratio of the radiation emitted by a surface to the radiation emitted by that surface if it were a perfect black body radiator at he same temperature. Note Emissivity varies with wavelength and should be defined for a given wavelength.	7.1.14 放射率　實際物體表面所放射輻射量，與同溫黑體輻射量之比。放射率因波長而異。
7.1.15 Emissive power; emittance The total power emitted from a surface at a specified temperature and in defined surroundings per unit area.	7.1.5 放射能力；放射量　在特定溫度與環境下，單位面積的總放射功率。
7.1.16 Absorptance; absorption factor The ratio of the radiant flux absorbed by a surface to the radiant flux incident on that surface.	7.1.16 吸收率；吸收因數　表面吸收的輻射量與全部入射輻射量之比。吸收率因波長而異。
7.1.17 Transmittance; transmission factor The ratio of the radiation transmitted through a given material to the radiation incident on the irradiated surface of that material.	7.1.17 透射率；穿透因數　物體透射之輻量與全部入射輻射量之比值。透射率因波長而異。
7.1.18 Reflectance; reflection factor The ratio of the radiation reflected from a surface to the radiation incident on that surface. Note More specific terms are: reflectivity (the fraction of incident solar radiation reflected at a specific wavelength) and reflection coefficient (the average reflectivity over a specified wavelength	7.1.18 反射率；反射因數　反射能量佔全部入射輻射量之百分比。反射率因波長而異。（註）反射係數在特定波長範圍內，平均反射量與全部入射輻射量之比值。

region weighted by the distribution of radiation in the solar spectrum).	
7.1.19 AM 1 conditions (air mass 1) Standard conditions, being those prevailing at sea level, when the ratio of the optical path length (air mass) actually traversed through the earth's atmosphere, to the path length vertically through the earth's atmosphere is unity. The transparency of the atmosphere is in practice further reduced by atmospheric turbidity.	7.1.19 空氣質量 1（AM1） 透過地球大氣層光的行徑與地球大氣層垂直高度相同的標準狀況。大氣層的透明度事實上會受空氣混濁的影響而減小，此時空氣質量≥0。
7.1.20 Greenhouse effect An effect whereby infrared radiation (i.e. heat), emitted by a body that has absorbed energy from the sun, is trapped in a space enclosed by glass or other material that is largely opaque to infrared radiation (hence preventing radiant heat losses) but transparent to other incoming solar radiation. Note For the greenhouse effect caused by atmospheric carbon dioxide and possible increase in the temperature of the surface of the earth, see Section 8.	7.1.20 溫室效應 太陽輻射穿過如玻璃等之容許短波透射而長波（如紅外線）不易透射之材料，照射於物體表面後，由於物體放射之長波不易再透出，致使該空間溫度升高之效應。 （註）由二氧化碳所造成之溫室效應可能引起地表溫度之升高（見第八章）。
7.1.21 Irradiance period The period of exposure of an area to solar irradiance.	7.1.21 輻射期間 某一區域接受太陽輻射時段。
7.1.22 Irradiance ratio The ratio of the effective irradiance to the theoretically maximum possible irradiance. Note the duration of the theoretically maximum possible irradiance could be readily calculated or may be obtained from the local meteorological office for a completely open site but it may require to be corrected for the masking effects of orographical and other obstacles.	7.1.22 照射比值 有效照射量與理論最大照射之比值。 （註）理論最大照射量可由計算或當地氣象資料獲得，但因地形或其他因素的影響須加以修正。
7.2 Technology-Solar Collectors	7.2 技術—太陽能收集器
7.2.1 solar collector A device designed to absorb incident solar radiation, convert it generally	7.2.1 太陽熱能收集器 吸收太陽輻射能，並可將太陽能轉變為熱能並傳送至熱交換媒

to heat energy and transfer it to a heat-transfer medium. Note In some cases the term ‘collector’ relates exclusively to the component that receives the solar radiation, the whole assembly being referred to as a ‘helio-thermal converter’.	體的一種裝置。 （註）有些情況「收集器」專指接收太陽輻射的組件，整套設備稱為「光—熱 轉換器」。
7.2.2 Air- cooled solar collector A solar collector in which air is the heat-transfer medium.	7.2.2 氣體式太陽能收集器　以氣體為熱交換媒體的一種太陽能收集器。
7.2.3 Liquid-cooled solar collector A solar collector in which a liquid is the heat-transfer medium.	7.2.3 液體式太陽能收集器　以液體為熱交換媒體的一種太陽能收集器。
7.2.4 Flat plate collector A solar collector that does not make use of concentrating devices.	7.2.4 平板式收集器　不使用聚光裝置的太陽能收集器，此種裝置太陽能入射面積等於吸收面之放射面積。
7.2.5 Concentrating solar collector A solar collector that comprises reflectors, lenses or other optical devices designed to concentrate the solar energy falling within the collector aperture on to an absorber whose surface area is less than that of the collector aperture. Note The main types of concentrating collector in use may be divided into those that operate by refraction (lens collectors) and those that operate by reflection; the reflecting surfaces of the latter are in the form of hemispheres, parabolas, parabolic cylinders or cones.	7.2.5 集中式太陽能收集器　裝有反射鏡、透射鏡或其他光學裝置可裝置可聚太陽光的收集器；此種收集器的太陽能入射開口面積大於吸收器面積。 （註）主要的集中式太陽能收集器型式有透射式與反射式二種。反射式的表面有半球型、拋物面型、拋物面圓柱型或圓椎型等。透射式有 FRESNEL 鏡及各種透鏡。
7.2.6 Cover; cover plate The material or materials that cover the aperture of the solar collector, are directly exposed to solar radiation and trap infrared radiation by the greenhouse effect (see 7.1.20).	7.2.6 覆蓋；覆蓋板　蓋在太陽能收集器表面上的材料，直接曝露在太陽輻射下，並以溫室效應的作用捕捉紅外線。
7.2.7 Absorber The component of a collector that absorbs solar radiation, converts it to heat energy and transfers the heat to a heat-transfer medium.	7.2.7 吸收器；吸收面　能吸收太陽輻射並將之轉變成熱能並傳送至熱傳媒體的收集器組件。

Note In the case of a flat plate collector, the absorber has a dark and generally matt surface.	
7.2.8 Collector aperture The frontal cross-sectional area of a collector through which normal, direct solar radiation can penetrate to the absorber directly or by reflection. The area available for the transmission of solar radiation through the first air/cover interface of the collector.	7.2.8 收集器口徑　收集器上方與太陽輻射垂直，讓太陽輻射直接或間接（反射或折射）到達吸收器的截面積。（通常口徑指外界與第一層覆蓋介面之截面積）。
7.2.9 Concentrator That part of a concentrating solar collector that serves to direct the solar radiation on to the absorber.	7.2.9 集中器　將太陽輻射聚集到吸收面上的收集器組件。
7.2.10 Selective surface A surface that has a high absorptance for solar radiation and a low emittance for infrared radiation.	7.2.10 選擇性表面　具高太陽短波輻射吸收率及低紅外線放射率的表面。
7.2.11 Collector efficiency The ratio of the quantity of energy actually recovered by a solar collector during a given period to the quantity of solar energy incident on the surface of the collector during that period. Note In practice every collector system possesses thermal inertia. Efficiency calculations are, therefore, made on the basis of recordings made over a period of time with constant irradiation conditions and collector temperature.	7.2.11 收集器效率　同一時間內，收集器實際獲得能量與收集器口徑入射太陽輻射量之比值。
7.2.12 Overall coefficient of collector losses A parameter that quantifies the energy losses of a solar collector to the surroundings (optical and thermal losses). Note Optical losses are attributable to the design characteristics of the collector; heat losses to its operating conditions.	7.2.12 收集器總熱損失係數　表示太陽能收集器散失到週圍環境能量之一種參數（光及熱的能量損失）。 （註）收集器總熱損失係數與收集器之材料、設計、製造、操作條件及環境條件有關。
7.2.13 Inclination (of collector) The angle formed by the plane of the collector and the horizontal plane.	7.2.13 傾斜角　收集器平面與水平面之夾角。
7.2.14 Primary heat-transfer fluid The medium	7.2.14 一次熱傳流體　與太陽能收集器直接接

such as air, water or other fluid that passes through the solar collector or maintains contact with it and extracts from it the heat energy collected.	觸，用以傳送太陽能收集器所吸收之太陽輻射熱能之流體，如空氣、水或其他流體等。
7.2.15 Secondary heat-transfer fluid The intermediary fluid that serves to convey heat to or from the heat-storage system.	7.2.15 次級熱傳送流體　藉熱交換傳送一次熱傳流體熱能之流體（此流體可與一次熱傳流體相同或不同）。
7.2.16 Storage system A system of one or more insulated containers holding heat-storage media and expressly designed for heat storage.	7.2.16 蓄熱系統　裝有蓄熱媒介體的容器所組成之熱能貯存系統。
7.2.17 Heat-storage medium The substance utilised in the storage system in which the major part of the heat energy is stored, either as latent heat or as sensible heat.	7.2.17 蓄熱媒體將熱能以潛熱、顯熱或其他化學能之形態貯存於蓄熱系統中之熱能貯存物質。
7.2.18 Pyranometer An instrument for measuring solar irradiance upon a surface; if mounted horizontally it will measure global irradiance. Note The instrument is usually used to measure global irradiance but by suitably shading the sensor from the direct solar beam it may be used to measure diffuse radiation.	7.2.18 水平日射儀　測量日射量之儀器，水平裝設時之測值為全日射量。 （註）此儀器通常用以測量全日射量，若將感受器予以適當的遮蔽以避免太陽直射，則可用來測量漫射輻射。
7.2.19 Pyrheliometer An instrument for measuring direct solar irradiance on a surface normal to the sun’s rays.	7.2.19 直達日射儀　測量直達日射量的儀器，其感受器平面必須與太陽光垂直。
7.3 Thermal Applications of Solar energy	7.3 太陽熱能的應用
7.3.1 Solar architecture Architectural design adapted to the collection, storage and distribution of solar energy falling on a building, by the combined use of opaque and transparent walls, of the thermal mass of the building and of natural air circulation, based on local climatic conditions (passive systems)	7.3.1 太陽能建築物 依據當地氣候情況的建築物設計，能藉此設計收集、貯存，以及分配照射在建築物上的能量。使用方法有透明與不透明牆壁的配合，建築物策的熱質量與自然循環的利用（被動系統）。
7.3.2 Solar heating A system that utilises solar collectors to transfer a part of the solar	7.3.2 太陽能加熱系統　利用太陽能收集器將照射在建築上的部份太陽能傳送到熱交

energy falling on a building to a heat exchange medium, the heat energy thus collected being thermally stored and subsequently distributed by a conventional heating system (active system).	換器中的媒體上，熱能因而被收集起來，並以傳統的加熱系統分配（主動系統）。
7.3.3 Solar water heating A system for collecting and utilising solar energy for heating or pre-heating water, mainly for domestic purposes (domestic hot water).	7.3.3 太陽能熱水　收集太陽能並以此一能量加熱或預熱用水的系統，主要用途是供家庭熱水使用（家庭熱水）。
7.3.4 Solar drying The utilisation of heat derived from the sun for drying agricultural and industrial products.	7.3.4 太陽能乾燥　利用太陽的熱量乾燥農業與工業產品。
7.3.5 Solar cooker A solar collector with or without concentration equipment, designed to utilise the solar energy collected for cooking food.	7.3.5 太陽鍋　以聚焦或非聚焦之收集太陽能烹煮食物的裝置。
7.3.6 Solar furnace A furnace in which high temperatures are achieved by concentrating the sun's rays on the material under heat treatment or being melted.	7.3.6 太陽爐　將太陽輻射集中在物體上，再以熱傳或熔解氣方式吸熱，以此吸收熱量使爐溫升高。
7.3.7 Heliostat A system that orientated an absorber or a mirror so that direct solar radiation is absorbed at or reflected on a fixed position regardless of the position of the earth during daylight hours. Note The mirror version is the more general and the term "heliostat" is sometimes used to describe the orientable mirror alone.	7.3.7 輔助反射平面　將吸收器或鏡片安裝在適當的位置，能使太陽輻射在一固定的位置被吸收或反射的系統，白天時不受地球位置的影響。 （註）此一名辭通常專指裝設鏡片的輔助反射平面鏡。
7.3.8 Focus The point at which the solar rays meet after reflexion or refraction in a solar furnace or concentrating collector.	7.3.8 焦點　在太陽爐或聚光器上，太陽光經反射或折射而聚集的一點。
7.3.9 Solar thermal pump A pump powered by heat engine whose heat source is supplied by solar energy.	7.3.9 太陽熱泵　動力來源以太陽能為熱源的熱機而帶動之泵浦。
7.3.10 Solar thermal power station An installation designed to transfer solar energy to a heat-transfer medium and to convert the heat energy thus collected into	7.3.10 太陽熱能發電廠　一種裝置可將太陽能傳送到熱媒介質中，並能將其中的熱量轉變成電能。 （註）太陽能塔式發電廠是一種典型的太

electrical energy. Note A solar tower power station is a type of solar power station that incorporates a tower to collect and convert to electricity direct solar radiation reflected on to it by mirrors orientated by heliostats.	陽能電廠，利用輔助反射平面鏡直接將太陽輻射轉變成電力。
7.4 Direct Conversion of Solar Radiation into Electricity	7.4 太陽輻射直接轉變為電力
7.4.1 Solar photovoltaic cell; solar cell A device that enables solar radiation to be converted directly into electricity by application of the photoelectric effect. Current carriers produced by radiation, as in the photoelectric effect, are driven through an external circuit by an internal electric field. Note In practice an assembly of cells is mounted on a module and the modules are arranged in panels or arrays (in series, parallel, or combined series/parallel). Applications for photovoltaic cells are limited at present to those which require a source of electric current under conditions that particularly favour the characteristics of such cell, i.e. where low-power sources are required in remote locations, e.g. solar pumps, optical signaling, telecommunications, battery recharging, satellite power sources, electrolysis, etc. The extension of photovoltaic cells to other applications, e.g. direct conversion power stations, is directly dependent on lowering the costs of the modules.	7.4.1 太陽光電池，太陽電池　利用光電效應能將太陽輻射直接轉變成電力的裝置。在光電效應中，由輻射產生的電流載波因內部電場的驅動，而在外迴電路中流動。 （註）在實際應用上，太陽電池的裝配法是先將電池裝在模組上，再以模組排列成模板或行列組（串聯、並聯或並串聯）。目前光電池的應用仍局限於偏遠地區用電量少的裝置上，例如太陽能泵浦，發光訊號、電傳、電池充電、人造衛星電源，以及電解等。直接將光轉換成電力的電廠經濟效益由模組成本的降低程度而定。
7.4.2 Short-circuit current of solar cell The current supplied by solar cells on short circuit, under AM 1 conditions at 300ºK (unless otherwise specified).	7.4.2 太陽電池的短路電流　由太陽電池在300°K，AM1 標準狀況下短路供應的電流。
7.4.3 Open-circuit voltage of a solar cell Voltage developed at the terminals of a solar cell on	7.4.3 太陽電池的斷路電壓　在 300°K，AM1 標準狀況下，太陽電池在斷路接頭所形成

open circuit, under AM 1 conditions at 300ºK (unless otherwise specified).	的電壓。
7.4.4 Efficiency of a solar cell Ratio of the peak power delivered by a solar cell to the solar irradiance incident on the cell, under standard AM 1 conditions at 300ºK (unless otherwise specified).	7.4.4 太陽電池的效率　在 300°K，AM1 標準狀況下，照射在太陽電池上的太陽輻射量與其所輸出的尖峯功率比。
7.4.5 Peak power of solar cell Maximum electric power obtainable from a solar cell under standard AM 1 conditions at 300ºK (unless otherwise specified).	7.4.5 太陽電池的尖峰功率　在 300°K，AM1 標準狀況下，由太陽電池所輸出的最大電力。
7.4.6 Series resistance of a solar cell Resistance in series with an ideal solar cell that results in ohmic voltage drop within the actual cell. Note An ideal solar cell is a hypothetical cell without internal resistance.	7.4.6 太陽電池的串聯電阻　理想太陽電池串聯時的電阻，這種電阻會導致電池實際使用時電阻電壓的下降 （註）太陽電池通常被假設無內電阻。
7.4.7 Shunt resistance of a solar cell Resistance in parallel with an ideal solar cell that results in current leakage losses within the actual cell. Note An ideal solar cell is a hypothetical cell without internal resistance.	7.4.7 太陽電池的分路電阻　理想太陽電池並聯時的電阻，這種電阻會導致電池實際使用時電流的損失。 （註）太陽電池通常假設無內電阻。
7.4.8 Optical efficiency of a solar cell Ratio of the solar irradiance on the photosensitive part of the cell to the solar irradiance on the whole cell.	7.4.8 太陽電池的光學效率　照射在太陽電池電池敏感的部份的入射能與全部照射量之比。
7.4.9 Spectral response of a solar cell The short-circuit current supplied by the cell per unit irradiance in a narrow (generally not exceeding 10 mm) wavelength band, expressed as a function of wavelength at 300ºK (unless otherwise stated).	7.4.9 太陽電池的光譜反應　單位入射波長範圍通常不超過 10mm，之太陽電池短路電流，一般以 300°K 波長函數表示。
7.4.10 Packing density Ratio of the total area of all the cells to the area of the solar module on which they are mounted.	7.4.10 裝配密度　電池的總面積與其裝配模板總面積之比。
7.4.11 Covering factor Ratio of the area of a solar cell covered by metal to the total area of the	7.4.11 覆蓋因數　太陽電池被金屬物覆蓋的面積與電池總面積之比。

cell.	
7.4.12 Fill factor Ratio of the peak power obtainable from a solar cell to the product of the open-circuit voltage and short-circuit current (see 7.4.2).	7.4.12 充填因數　太陽電池的尖峯功率和開路電壓與短路電流乘積之比。
7.4.13 Geometrical concentration ratio Ratio of the area of the photosensitive part of a solar cell to the area of the cell.	7.4.13 幾何集中比　太陽電池對光敏感部份之面積與電池面積之比。
7.4.14 Actual concentration ratio The product of the geometrical concentration ratio and the optical efficiency of a cell.	7.4.14 實際集中比　太陽電池幾何集中比和光學效率之乘積。
7.4.15 Hybrid solar cell system A solar cell incorporating a cooling system in which the heat energy collected by the cooling medium is usefully employed.	7.4.15 混合式太陽電池系統　太陽電池加裝冷却系統，以其中的冷媒收集熱能，這是一種很有用的方法。