

What does photovoltaic mean?

Pick the best words! The meaning of PHOTOVOLTAIC is of, relating to, or utilizing the generation of a voltage when radiant energy falls on the boundary between dissimilar substances (such as two different semiconductors).

What is a photovoltaic (PV) cell?

A photovoltaic (PV) cell, commonly called a solar cell, is a nonmechanical device that converts sunlight directly into electricity. Some PV cells can convert artificial light into electricity. Sunlight is composed of photons, or particles of solar energy.

Where does the word photovoltaic come from?

The term "photovoltaic" comes from the Greek *phōs* (phōs) meaning "light", and from "volt", the unit of electromotive force, the volt, which in turn comes from the last name of the Italian physicist Alessandro Volta, inventor of the battery (electrochemical cell). The term "photovoltaic" has been in use in English since 1849.

What is the photovoltaic effect?

Photovoltaics (PV) is the conversion of light into electricity using semiconducting materials that exhibit the photovoltaic effect, a phenomenon studied in physics, photochemistry, and electrochemistry. The photovoltaic effect is commercially used for electricity generation and as photosensors.

How does a photovoltaic device produce a voltage?

A photovoltaic device produces a voltage when it is exposed to light. Special panels of photovoltaic cells capture light from the sun and convert it into electricity. A solar cell is a photovoltaic device that produces an electrical current from light. A photovoltaic device produces a voltage when it is exposed to light.

How do photovoltaic cells work?

Simply put, photovoltaic cells allow solar panels to convert sunlight into electricity. You've probably seen solar panels on rooftops all around your neighborhood, but do you know how they work to generate electricity?

PHOTOVOLTAIC DICTIONARY

MEANING



Solar Energy 101. Solar radiation is light ??? also known as electromagnetic radiation ??? that is emitted by the sun. While every location on Earth receives some sunlight over a year, the amount of solar radiation that reaches any one spot on the Earth's surface varies. Solar technologies capture this radiation and turn it into useful forms



The U.S. Department of Energy Solar Energy Technologies Office (SETO) supports PV research and development projects that drive down the costs of solar-generated electricity by improving efficiency and reliability. PV research projects at SETO work to maintain U.S. leadership in the field, with a strong record of impact over the past several



The photovoltaic effect is a process that generates voltage or electric current in a photovoltaic cell when it is exposed to sunlight. These solar cells are composed of two different types of semiconductors???a p-type and an n-type???that are joined together to create a p-n junction joining these two types of semiconductors, an electric field is formed in the region of the ???

PHOTOVOLTAIC DICTIONARY

MEANING



Grid parity: The point at which power generated by solar panels costs the same or less than power from conventional resources like natural gas. Levelized cost of energy (LCOE): The per-unit cost of energy from a solar energy system. You can calculate LCOE by dividing the out-of-pocket cost for the system by the estimated total amount of energy the system will ???



Chapters are written concisely in straightforward language that provides clear explanations of the concepts and principles, with an emphasis on humanitarian applications of photovoltaic systems and a focus on relatively small size systems that will make the book relatable to readers.



OverviewEtymologyHistorySolar cellsPerformance and degradationManufacturing of PV systemsEconomicsGrowth

PHOTOVOLTAIC DICTIONARY

MEANING



Photovoltaic cells convert sunlight into electricity. A photovoltaic (PV) cell, commonly called a solar cell, is a nonmechanical device that converts sunlight directly into electricity. Some PV cells can convert artificial light into electricity. Sunlight is composed of photons, or particles of solar energy. These photons contain varying amounts of energy that correspond to the different



When light shines on a photovoltaic (PV) cell ??? also called a solar cell ??? that light may be reflected, absorbed, or pass right through the cell. The PV cell is composed of semiconductor material; the "semi" means that it can conduct electricity better than an insulator but not as well as a good conductor like a metal.



The majority of residential solar is grid tied, meaning that we use the utility infrastructure to measure production of energy produced by the solar system. When we use more energy than is produced by the solar system, the energy ???

PHOTOVOLTAIC DICTIONARY

MEANING



Photovoltaic Systems: Fundamentals and Applications is designed to be used as an introductory textbook and professional training manual offering mathematical and conceptual insights that can be used to teach concepts, aid understanding of fundamentals, and act as a guide for sizing and designing practical systems.



Photovoltaic. Click for pronunciations, examples sentences, video. Access the entire site, including the Easy Learning Grammar, and our language quizzes.; Customize your language settings. (Unregistered users can only access the International English interface for some pages.)



Solar radiation may be converted directly into electricity by solar cells (photovoltaic cells). In such cells, a small electric voltage is generated when light strikes the junction between a metal and a semiconductor (such as silicon) or the junction between two different semiconductors.(See photovoltaic effect.)The power generated by a single photovoltaic cell is ???

PHOTOVOLTAIC DICTIONARY

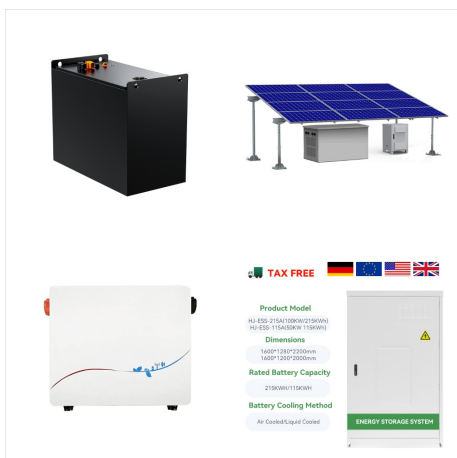
MEANING



A photovoltaic cell is the most critical part of a solar panel that allows it to convert sunlight into electricity. The two main types of solar cells are monocrystalline and polycrystalline. The "photovoltaic effect" refers to the conversion of solar energy to electrical energy.



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Photovoltaics (often shortened as PV) gets its name from the process of converting light (photons) to electricity (voltage), which is called the photovoltaic effect. This phenomenon was first exploited in 1954 by scientists at Bell Laboratories who created a working solar cell made from silicon that generated an electric current when exposed to sunlight.



photovoltaic cell. Electronic component that converts energy from sunlight into electricity. Go to definition. is an electronic component that converts solar energy into electrical energy. This conversion is called the . photovoltaic effect. Creation of electric current when a semiconductor material is struck by light photons. Go to definition



Define photovoltaic. photovoltaic synonyms, photovoltaic pronunciation, photovoltaic translation, English dictionary definition of photovoltaic. adj. Capable of producing a voltage when exposed to radiant energy, especially light. pho???to?vol?ta???ic n.



photovoltaic cell. Electronic component that converts energy from sunlight into electricity. Go to definition. is an electronic component that converts solar energy into electrical energy. This conversion is called the . photovoltaic ???

PHOTOVOLTAIC DICTIONARY

MEANING



Solar panel, a component of a photovoltaic system that is made out of a series of photovoltaic cells arranged to generate electricity using sunlight. The main component of a solar panel is a solar cell, which converts the Sun's energy to usable electrical energy. The most common form of solar