















Haniyeh Ghassabzadeh Alamdari Mansour Firoozi

Mohsen Ghassabzadeh Alamdari

Live and Bright Walls in the Construction Industry

Already being used as a large-scale power source for housing heating/cooling & biodiesel creation, algae as a natural energy source is one of the more exciting alternatives of the near future.

Today, due to the growing population and human needs and, consequently, increasing energy consumption, we are witnessing the phenomenon of energy crisis in the world. In the last hundred years, the need for sustainable, cheap and clean fuel sources has become more and more important. A significant part of this energy is consumed in buildings and achieving clean and healthy energy in buildings can play an important role in improving environmental conditions. By placing algae inside these decorative walls, this light can be created in a very simple way. Algae is very easy to grow and requires only sunlight, carbon dioxide (CO2) and water, thus providing a very simple way to generate energy. Inside this lamp and decorative wall, there is some algae that can produce energy by using carbon dioxide, which is present in human and environmental exhalation. It is very easy to place the inlamp or decorative wall in the sun to light it up. These decorative walls and lamps are equipped with a kind of solar battery that stores solar energy during the day so that it can be used in the absence of the sun and creates a special light and attractiveness to the spaces in the building environment. These lamps do not need grooves or slits and use water and a system to transport carbon dioxide.

Using the energy hidden in algae and converting this energy into useful energy needed by the society in order to reduce air pollution, as well as designing and beautifying urban spaces in addition to saving fuel resources and using natural energy resources to supply the energy needed by humans. One of the biggest and most practical advantages of designing and building living and green walls in the construction industry is spirulina algae. Bioreactors are transparent tanks and controlled environment for the phenomenon of photosynthesis. Biomass, built in glass panels, produces heat and electricity, can also act as a light source and act as a sound wall. Strong sunlight makes bioreactors grow faster and provide more shade. As a result, the resulting biomass receives solar heat and can be used as an energy source. Basically, one An ecosystem is an architecture in which all parts of this process are not only sustainable but also multifunctional and fully integrated.



Haniyeh.GH.AL@gmail.com /+98 990 382 0092 / Haniyeh_Alamdari



