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(54) **Titre : Process for the absorption of the incident sun visible rays and product to generate continuous current.**

(57) **Abrégé :**

The present invention eliminates the problems faced by solar panels which are energy loss in form of heat and degradation of the semi-conductor. The process and products invented make it possible for the sun visible incident polarized waves to be absorbed/photoelectric accordingly by their respective semi-conductor which are silicon and perovskites to generate continuous current at a very high density, making them highly efficient technically, economically and climate friendly.

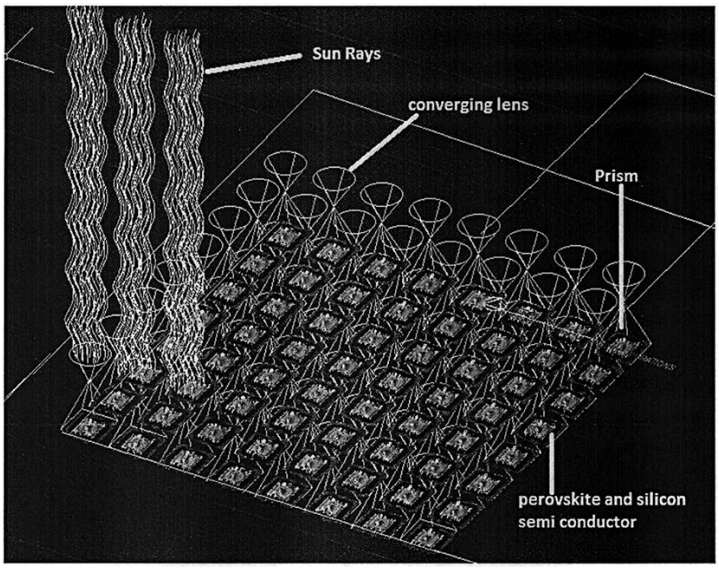


**Planche Unique – Fig. 1**

The present invention concerns a process for the absorption of the sun visible rays and products that are converging lens, prism and semi-conductor. Process for the absorption of the incident suns visible rays and these products generate continuous current. Solar panels contain thin rectangular glass at their surface for the incident solar rays to be photoelectric on the silicon semi-conductor and perovskite semi-conductors.

The current state presents issues of energy loss and degradation of semi-conductor due to the thin glass optics and the stacking of the semi-conductors. Rays from the sun that are to be incident directly on a particular semi-conductor are found to be underneath other semi-conductors. These transient polarized rays that are meant to be photoelectric on the underneath stacked semi-conductor are found losing their energy on the first semi-conductor and degrading them. Having the energy of these incident rays being loss as heat also damages the semi-conductor. That is why something needs to be done to have an optics process that will have each incident solar transient polarized rays photoelectric to their respective semi-conductor cathode and anode increasing energy gain and limiting semi-conductors degradation.

The Patent No: US 685957 obtained by Nikola Tesla (1901) describes the apparatus for utilizing radiant energy comprising a condenser having one terminal connected to the earth and the other terminal connected to an elevated conducting plate which is adapted to receive rays from a distant source of radiant energy which is Sun. The common ground with this invention and what we are presenting is the use of the silicon semi-conductor, the difference is that we are having an additional perovskite semi-conductor to that of the silicon semi-conductor. The Patent No: US 2,780,765 obtained by Daryl M. Chaplin (1957) describes a photovoltaic cell for the conversion of solar energy radiations into electrical energy comprising a silicon body n-type, a large area planar p-n junction, a boron diffused p-type of surface zone of thickness comparable to the diffusion length of electrons. There is a common ground in the use of the silicon semi-conductor between this patent and our invention. There is a difference in these patents with our invention in the use of a converging lens and a prism instead of thin glass (see the figure). Patent No: US 939,128,7B1obtained by Jingsung huang (2016) describes the dye sensitization type solar cell, which includes a porous metal oxide semi-conductor electrode on a transparent

conductive glass substrate, a dye adsorbed on the surface of the porous metal oxide semi-conductor electrode, an electrolyte having a reduction-oxidation pair, and a counter electrode. This patent is valid till today but not valid in the OAPI zone. There is a common ground in the use of perovskite materials between this patent and our invention. There is also a difference between them as our invention uses a converging lens and a prism instead of a thin glass. Patent No : CN202100151U obtained by Zeng Xingrong Wei Youshan (2012) describes a utility model which discloses a solar power generation glass window, which comprises a window frame, wherein, a CIGS (copper, indium, gallium and selenium) film glass solar panel is embedded in the window frame; a film solar cell is embedded in the CIGS film glass solar panel; the film solar cell is connected with an electric wire in the window frame and a transformer and an interface are connected with one end of the electric wire. The patent is no longer valid till today and not valid in the OAPI zone. There is a common ground with the use of perovskite semi-conductors with this patent and our invention; there is a difference with the use of a converging lens and a prism instead of a thin glass (see the figure).

Patent No : GM11824484 obtained by Peter Hakernburg (2023) describes the invention of the solar energy roof tile, thermally and/or electrically conductively connected to an adjacent solar energy roof tile, includes a lower face for placing on at least some regions of a roof construction, an upper face opposite the lower face formed at least in some regions by a solar energy utilization module, two opposite lateral walls, a rear face connecting the lateral walls, and a front face opposite the rear face that connects the lateral walls. This invention is still valid today but not valid at the OAPI zone. There is a common ground with semi-conductors used in this patent and our invention. There is a difference with our invention as we use a thin converging lens and a prism and they do not (see the figure). Patent No: GM 11817517 obtained by Benjamin Strahm (2023) describes photovoltaic device and method for manufacturing an interdigitated back contact photovoltaic device that includes a first patterned silicon layer situated on an intrinsic layer, and having the same type of doping as the one of the substrate. First charge collection portions are deposited on predetermined areas of the intrinsic layer, and include each an amorphous layer portion situated between the predetermined areas and the at least partially nano-crystalline layer portions. This patent is valid today but not at the OAPI zone.

There is a common ground with our invention in the use of the silicon semi-conductor. There is a difference with the use of a converging lens and a prism instead of a thin glass (see the figure). Previous inventions do not make it possible for the absorption of all the visible wavelengths of the sunlight in their procedure of energy absorption from the sun.

The present invention aims at reducing the energy loss on solar panels so as to increase the efficiency of absorption of solar radiation to generate more electricity. The production of Solar panels presents a number of issues in the efficiency of the energy absorbed and on the degradation of these panels due to transient polarized waves which are incident on semi-conductors for which they can't have a photoelectric effect on these semi-conductors. This process degrades the semi-conductors due to these photons or wavelengths that travel through them. The goal of the invention is to reduce the inconvenience of power loss, less efficiency and early degradation of solar panels by absorbing a maximum of incident transient polarized waves from the sun, i.e., from the infrared polarized dielectric wave transient and its magnetic polarized wave transient through the visible rays, up to the ultra violet dielectric and magnetic polarized wave transient. In particular the goal is to get a procedure that will absorb a maximum of the incident visible waves of the sun and increase the efficiency of solar panels.

According the photoelectric principle which states that every semi-conductor vibrating at a particular frequency could only be resonated by a particular wave, our invention makes it possible for the absorption of light near infrared to be absorbed by silicon semi-conductor and the visible rays and near ultra violet absorbed by the organometal trihalide perovskites. Consequently, the electricity generated is the combination of electron/holes generated from the silicon semiconductor and the organometal trihalide perovskites semi-conductor.



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Claims

1. Process for the absorption of suns visible rays and products to generate continuous current, characterized by the fact that incident sun rays converge through a convex lens to a focus point on a prism.
2. Process according to claim 1; characterized by the geometric nature of the convex lens which are thicker at the center than the edges to refract and converge the parallel incident sun rays to a focal point on the prism.
3. Process according to claim 1 for the concentrated incident sun rays at a focal point on a prism to be separated into its various visible rays by refraction which are then incident on a structural (x,y,0) axis alignment of semi-conductors to be absorbed.
4. Process according to claim 3; characterized by the geometric nature of the prism with equilateral angles.
5. Process according to claim 4; characterized by the physical property of the prism whose refractive index separates the concentrated sun rays into its various spectrum of visible rays which are emitted accordingly to be absorbed by the structural alignment (x,y,0) axis of the semi-conductors.
6. Process according to claim 5; characterized by the absorption of the separated sun visible spectrum from the prism by the structural alignment (x,y,0) of semi-conductors products. Each emitted visible ray from the prism is incident, absorbed and photoelectric to its particular semi-conductor structurally aligned.
7. Process according to claim 6; characterized by the physical properties of light rays that have polarized transient waves vibrating at a particular frequency making it photoelectric when incident to its particular semi-conductor structurally aligned (x,y,0) to generate continuous current.
8. Process according to claim 7; characterized by the chemical properties of the structurally aligned (x,y,0) semi-conductors to be photoelectric to the emitted separated visible sun's rays spectrum whose polarized dielectric transient is incident on the anode of the particular semi-conductor and the polarized

magnetic transient is incident on the cathode of that particular semi-conductor to generate continuous current.

## Abstract

The present invention eliminates the problems faced by solar panels which are energy loss in form of heat and degradation of the semi-conductor. The process and products invented make it possible for the sun visible incident polarized waves to be absorbed/photoelectric accordingly by their respective semi-conductor which are silicon and perovskites to generate continuous current at a very high density, making them highly efficient technically, economically and climate friendly.

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