

SNPE (Solar Nanoparticle Energy)

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Based on previous studies about how photocatalysts function we can see that a photocatalyst is able to separate water to hydrogen and oxygen. And then these 2 elements produced could then be reacted together to produce energy and this process could create a system which is the SNPE-device. The SNPE-device aims to be an alternative to fossil-fuel combustion to maintain the ecosystem where such a device prevents greenhouse gases since SNPE-device is based on hydrogen combustion where no greenhouse gas is produced and thus prevents enhanced global-warming effect while sustaining an efficient and sufficient amount of output energy supplied to people. The way this device works is by firstly, directing water into a heating solar panel where water is heated through solar energy until it reaches a high temperature then it is directed into a second solar panel where it is put with magnetite-photocatalyst to separate water to hydrogen and oxygen, and then hydrogen and oxygen produced are collected and reacted to each other producing thermal energy, this energy is then used to create steam and the steam produced is used to run an AC-generator. According to experiments conducted, the best hydrogen- to-oxygen ratio is 2:1 where it produces high amounts of energy and the system is 40% efficient at this ratio. In conclusion, the SNPE-device is capable of being an eco-friendly renewable energy that is an alternative to fossil fuels as it runs at high efficiency and the procedure is simple and cheap compared to other alternatives to fossil-fuels.