

A Fractal Solar Panel

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It is well known that a fractal curve can have an indefinite length for example the coast lines of countries. This also leads to fractal dimensions [Sidharth, B.G., *Chaotic Universe: From the Planck to the Hubble Scale*, Nova Science, New York, 2001].

It is proposed that we extend this reasoning to solar panels which can be treated as two dimensional strips, let us say of length l . Then the area of the solar panel would be $l \times d$ where d can be made indefinitely small by choosing the fractal curve or minimum length of the fractal curve. Treating solar photons as points would lead to a very large area of entrapment of the photons in a smaller volume of space. In this connection it may be mentioned that Sidharth and Das have explored the possibility of solar panels with graphene or other two dimensional material (Cf. report in this issue).

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We consider the fact that in multiple situations there are vibrations and tremors. This could be true for a volcanic eruption or for an earthquake. One way to understand this would be by the example of soldiers marching on a bridge. If the soldiers walk in step then the bridge begins to shake and even collapse. So too many vibrations in sync would lead to a situation where there is a resonance be it a volcano or an earthquake or anything on those lines. This resonant behavior gives us a clue to possibly track down such a pre-resonance situation. This consideration will be examined in greater detail.

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