

IAF SPACE POWER SYMPOSIUM (C3)
Virtual Presentations - IAF SPACE POWER SYMPOSIUM (VP)

POWERING A SPACECRAFT USING THE HIGHER HARMONIC FREQUENCY GENERATED BY
COUPLING SOLAR RADIATIONS AND GAMMA RAYS

Abstract

Flying into the space has always been a topic of great interest to the humanity from times immemorial. The designs for building machines for the same also has been from a very long time dating back to the BCEs. The power generation in the spacecraft is always on one of the highest priorities. There are many ways in which the power is generated in a spacecraft. One of the vastly growing fields of interest in this domain is the generation of power using solar radiations. It is found that the ancient Indian texts talk about 'Sourashakthi' which is nuclear power. It is possible to generate nuclear power by coupling the solar radiations with the gamma rays to produce the rays with higher harmonic frequency. This combination establishes enhanced radiation efficiency in the order of GHz. This paper describes about the generation of this radiation of higher harmonics, thus corresponding to the higher energy levels of the radiations. This energy generation powers the spacecraft naturally in the space only using the solar radiations. The generation of coupled radiations has been simulated using the software and the results show that the coupling of these rays would naturally produce rays with higher frequency. This higher harmonic frequency when focussed on the solar panels produced an increased power generation by several folds. The paper describes on how coupling radiations of different resonant frequencies leads to generation of radiation of higher frequency thus increasing the efficiency of powering a spacecraft using solar radiations.