

**THE PATENTS ACT, 1970**  
**COMPLETE SPECIFICATION**  
(See Section 10)

**1. HIGH EFFICIENCY SPACE POWER GENERATOR**

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The following specification particularly describes and ascertains the nature of this invention and the manner in which it is to be performed.

Scope of Invention

Generation of low d.c voltage at high current and high efficiency is the field covered by this invention.

History of the Invention

In 1974 a generalized theory of matter and energy which showed that energy can be developed in vacuum by positing electron's was proposed the writer and the same was registered with the Copy Right Office, Government of India (Registration No.L 6823/ 74). The writer also had published his works entitled "The Substantial Space and Void-nature Of Elementary Material Particles" in 1977, and "Space Vortices of Energy and Matter" in 1978. Bruce DePalma, erstwhile lecturer, MIT, USA having learnt then on above theoretical works wrote to the writer in May 1978 and sent some details of his experiments on rotation of conducting disc magnets by which electrical power could be generated at high efficiency. Since then and more vigourously since 1985, the writer performed many experiments to pinpoint the source of generation of additional power, and named the machines developed by the writer as "Space Power Generator". Bruce DePalma had named his own system of rotating magnets as "N-Generator" based on his discovery of "N-Effect". In an article, "On the possibility of Extraction of Electrical Energy Directly from Space", Bruce DePalma wrote in April 1990, "A parallel programme of Space Power Generators (SPG) has been taking place in India since 1978. P. Tewari of the Indian Atomic Board had developed a generalized theory of matter and energy which showed that energy could be developed from the vacuum by positing a structure for electron. Having received the experimental results of the "Sunburst" machine he instituted an R&D programme to develop practical versions of the SPG for general use. Tewari has constructed N-Machine/SPG

apparatus which produces excess output power over that required to rotate the generator when all losses have been subtracted from the output generated power"

The German Association Of Gravity Field Energy invited the writer to an International Conference held at Hannover in 1987 to deliver a lecture on his research on "Space Power Generation" and awarded the First Prize for the demonstration of a working model of SPG. Also, on his new field of research, many papers by the writer have been published in the Proceedings of the International Conferences in USA and Italy where he was invited to deliver invited talks. The present patent application pertains to "High Efficiency Space Power Generator (SPG)" invented by the writer through his experiments given in the above published papers.

In electromagnetic induction, which is the principle used in conventional d.c generators, electromotive force (emf) is induced when magnetic flux cuts a conductor due to motion of the conductor relative to the flux or vice-versa. Also, emf is induced when flux linkage with the conductor changes with time. Faraday in 1832 rotated together a copper disc and a magnet with magnetic field at right angles to the surface of the copper disc and noticed generation of emf between periphery of the disc and its axis though there was no relative motion between the copper disc and the magnetic field. The effect noticed by Faraday does not appear in engineering text books and therefore not known to many. DePalma's experiments too are similar to Faraday's in the sense that an electromagnet, with cylindrical core and the electric coil integrally mounted on it, is rotated to produce emf between its periphery and the axis of rotation. In this system the efficiency of electrical power produced as discovered by Bruce DePalma is at very high efficiency. The writer discovered through his experiments that in a rotating integral assembly of cylindrical iron core and electric coil mounted around it, emf is induced also in radial conductors in the core and without being in contact with the core except at the central axis of rotation, despite the fact that it has no contact with the steady magnetic field in the core. This unique effect of magnetic induction was published by the writer in an article entitled "Electromagnetic Induction of Space Substratum", Page 16, Jan-Feb 1992 Journal of Borderland Research, CA, USA, and is the basic concept utilised in the development of the present invention.

To summarise:

1. Faraday discovered that electromagnetic induction, in a co-rotating assembly of conducting disc and disc magnet is possible.
2. Bruce DePalma discovered the above effect of Faraday and also that electrical power produced through such a co-rotating magnet field-conductor system is at very high efficiency.
3. The writer discovered that electromagnetic induction in such a co-rotating magnetic-conductor system can take place even when the radial conductor embedded in the conducting disc is neither in contact with the magnetic field nor is cut by the magnetic field.

The development of this invention took place due to the above new phenomena of electromagnetic induction.

#### Brief description of the Invention

Refer Fig-12. An electric coil 15 is rigidly mounted on a cylindrical iron core 17 and rotated with a drive motor. Radial non-magnetic stainless steel (ss) studs 7, 16 welded to the shaft pass through the inner cylindrical rotors 5, 17 without touching the same. The ss studs are grouped in pairs, and each pair shares a common hole in the inner rotor. Half the ss studs in one plane terminate on a common non-magnetic metal ring (inner ring) 8 encircling the inner rotor 5. Fixed carbon brushes 12 slide on this ring and form one of the output terminals 10 of SPG. The remaining ss studs, also in one plane, terminate on another non-magnetic metal ring (outer ring) 11 encircling the inner core 17 and also the end cover 14 and mounted in between the airgap 28 created due to the two halves of the outer iron covers 9, 14. Fixed brushes 29 on this outer ring form the other output terminal 13 of SPG. The iron core is magnetised by feeding excitation power to the electric coil through slip rings 18 on the shaft 3. Though the steady magnetic field does not pass through the non-magnetic ss studs and also does not change with time, yet the ss studs 7, 16 develop d.c voltage that appears between the inner and outer rings 8, 11. When power is drawn between the above rings through fixed brushes on them, both the outgoing and incoming d.c current's pass through the airgap 18, thereby cancelling the magnetic effect due to the load current to a good extent. Similarly, the pair of ss studs in common holes in the inner core carry d.c currents in opposite directions and thus cancel their magnetic effects within the core. The above cancellation of magnetic effects due to load current in the outer airgap and the slots in the inner core leads to high efficiency of power production in SPG.

Further description of the present invention is given now in the following specifications and the attached drawings.

