

## **Cosmic Ray Invasion and Global Warming: How Can We Cope with The Two Dangers?**

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The earth is constantly irradiated with cosmic ray from the space. The dose of the cosmic ray is supposed to be too high for human beings to survive unless the earth is protected by the geo-magnetism. The electrically charged cosmic ray particles are effectively prevented from arriving at the surface of the earth by the magnetic field.

However, it is known that the geo-magnetic field has been constantly declining with time since the measurements started on its intensity about a century ago. The declining rate is ca. 750 years for the intensity to be reduced to one half of its present value. Although we still have some time left, this observation tells us that the humankind has to take some measure in order to survive.

My proposal to this problem is that we start constructing a gigantic coil around the earth with which a magnetic field of intensity equivalent to the present level i.e., 0.5 Gauss can be generated. If we start doing so now, it should be very attractive from the view points of utilizing to the full extent of the renewable energy, such as wind and solar energy. Because the fatal drawback of the wind or solar energy is that the energy is intermittent in generating electricity and hence is unpredictable and unreliable. If the electric power generated from numerous power sites around the globe of the earth, the fluctuation would be averaged out and besides the day and night time zones can also be connected.

It has been assessed whether it is technologically feasible. It has become promising only since 2005 when the high current density bismuth cuprate high temperature superconducting wires became available. Discussion will be made on the application of the current superconducting technology to the above described two independent global projects.

