

# PROPOSAL FOR A FAST PARTICLE ATOMIC REACTOR

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## Introduction

My dream has been for mankind to venture into the far reaches of space. Without a proper energy source this would be impossible. I considered most energy sources and have concluded that the fast particle atomic reactor offers the best option, so after thinking about it. I have come up with a feasible design.

## The Concept

Atomic reactors today all have moderators, if the moderator can be eliminated then the size of the reactor can be reduced remarkably. Also in the chapter on energy, in my first book "A Journey into the Mind of a Mad Man". I have shown that if fast particle atomic reactions do occur, energy will be proportional to the square of the particles velocity. Permitting a theoretical infinite energy out put.

## The Design

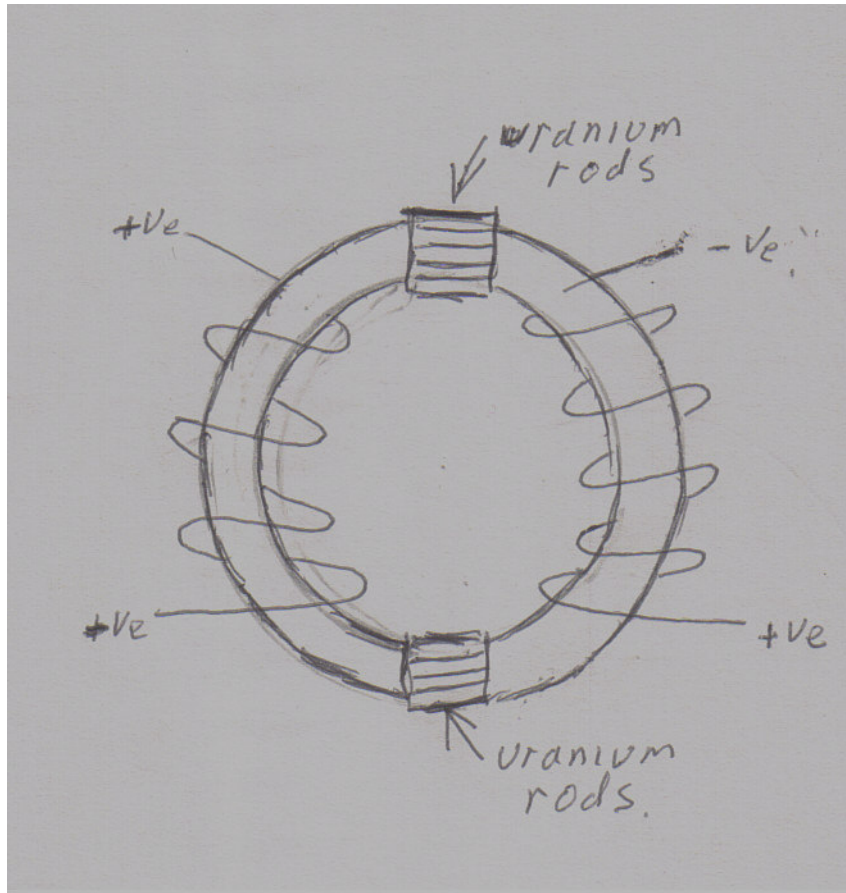
Instead of the conventional design of an atomic reactor, consider a doughnut shape where in the center of the doughnut tube is a Uranium or Plutonium plasma. Kept away from the tubes surface area by an electric field and accelerated around the doughnut by the same field, much the same way as done in thermonuclear doughnut experiments.

The difference here is we do not need a great compression of the plasma therefore there will be no warping of the plasma so it won't touch the tubes wall.

Now if at two points in the tubes length separated by 180 degrees. There are short lengths of enriched Uranium or Plutonium rods packed around the tube. We will have a source of slow moving neutrons relative to the plasma.

Therefore an atomic reaction will occur.

See diagram below.



diagam1

### The Theory

The faster the plasma travels around the tube the slower the neutrons appear to travel relative to the plasma therefore the higher the probability of it hitting a Uranium or Plutonium plasma nucleus, so the greater the atomic reaction. (As proven by conventional atomic theory.)

Control is kept by varying the speed of the plasma around the tube.

Now as shown by the equation below, from my first book "A Journey into the Mind of a Mad Man",  $E \propto v^2$  i.e. Energy is proportional to the square of the velocity.

$$E = mv(v, ti)$$

So the energy output approaches infinity, if there is no limit to the velocity of the atomic particles.

With proper energy conversion systems the reactor is unlimited in potential. Therefore giving a light, compact almost infinite energy source for any spacecraft.