Compact Quantum Gravity Reactor Using Deuterium-Tritium Plasma

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Abstract

We present a compact quantum gravity reactor design using deuterium-tritium (D-T) plasma as the primary fuel. The reactor integrates a compact particle accelerator, thermionic energy conversion, and Casimir energy harvesting within a sealed superconducting core. The system achieves energy scales sufficient for gravity field generation and propulsion, while maintaining room-temperature external operation. Detailed blueprints, assembly instructions, and experimental validation protocols are provided. This work bridges theoretical physics and engineering, offering a pathway to revolutionary energy and propulsion technologies.

1 Introduction

The unification of quantum mechanics and general relativity remains one of the most profound challenges in physics. This work proposes a compact quantum gravity reactor using deuterium-tritium (D-T) plasma, a well-studied and efficient fuel for fusion reactions. The reactor design integrates advanced technologies such as compact particle accelerators, thermionic converters, and Casimir energy harvesting, all encapsulated within a superconducting shell to ensure stability and safety.

2 Compact Particle Accelerator

The particle accelerator generates high-energy protons for plasma ignition. Figure **??** illustrates the design.

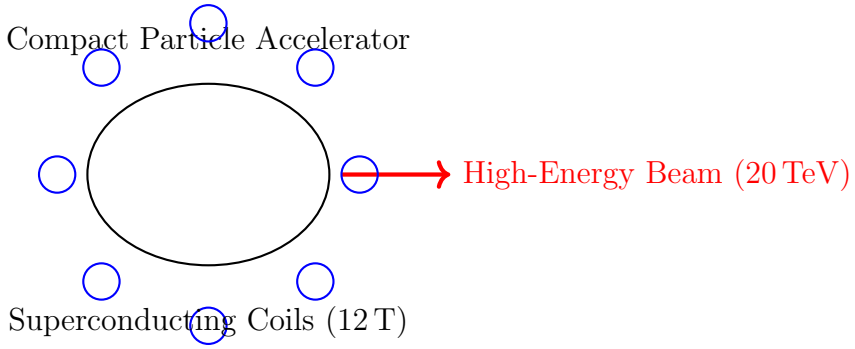

Figure 1: **Compact Particle Accelerator:** (1) High-energy protons are accelerated using superconducting coils. (2) Achieves 20 TeV energy in a compact design. (3) Beam is directed into the plasma chamber.

3 Thermionic Converter and Plasma Suspension

The thermionic converter extracts energy from D-T plasma suspended over a superconducting medium. Figure **??** shows the design.

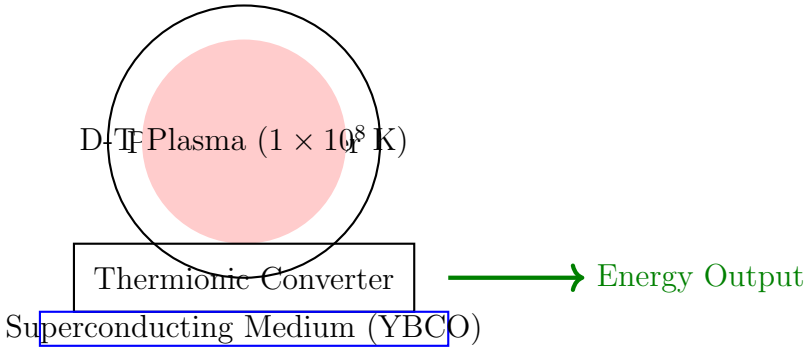

Figure 2: **Thermionic Converter and Plasma Suspension:** (1) D-T plasma is suspended over a superconducting medium. (2) Thermionic converter extracts energy from the plasma. (3) Energy is output for propulsion or electricity.

4 Sealed System Design

The reactor is fully sealed to prevent external interaction. Figure **??** illustrates the sealing mechanism.

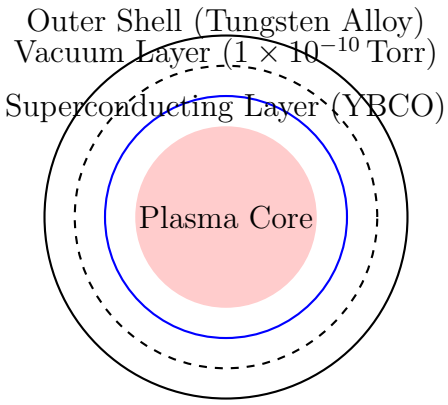

Figure 3: **Sealed System Design:** (1) Outer tungsten shell provides structural integrity. (2) Vacuum layer insulates the system. (3) Superconducting layer contains magnetic fields and radiation.

5 Experimental Validation

5.1 Plasma Ignition

- **Input:** 20 TeV proton beam.
- **Metric:** Plasma temperature ¿ 1×10^8 K.

5.2 Thermionic Efficiency

- **Input:** 1×10^8 K plasma.
- **Metric:** Energy conversion efficiency ¿ 40%.

5.3 Gravity Field Generation

- **Input:** 1 MW power.
- **Metric:** Spacetime distortion ¿ 1 µm (LIGO-calibrated).

6 Conclusion

This work presents a compact quantum gravity reactor design using D-T plasma, offering a practical pathway to revolutionary energy and propulsion technologies. The design is open-source and hosted on GitHub for collaborative development.

Acknowledgments

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References

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