Aneutronic IEC Fusion Concept

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In a world with rapidly progressing technologies and integration of electrical devices, our need for energy is larger than it ever has been. With limited natural resources, our dependence on fossil fuels must divert to something more sustainable. Nuclear power is a major facet to cure this dilemma other than alternatives such as solar, wind and hydro. However the use of fission requires heavy fissile fuels, and even the spent material can take years to finally stabilized. This raises some health concern; as does the use of fossil fuels, although a fusion reaction may be the ticket to clean energy. The Aneutronic IEC Fusion Concept is designed simply to test the feasibility of holding ‘cold’ deuterium ions in a static field, while simultaneously accelerating ‘hot’ deuterium ions to collide and fuse with those held in the electric field. The object of this method is to adhere to the concept of using ‘cold’ lithium ions held in the static field, fused with deuterium or hydrogen the respective isotope of lithium will undergo an aneutronic reaction. Lithium ions are significantly heavier than hydrogen or deuterium ions and thus are more difficult to heat to conditions suitable for fusion. This is where the ‘hot’ ion accelerator comes into play, Its purpose is to accelerate deuterium ions to speeds sufficient for fusion.

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