WHAT IS THERMONUCLEAR FUSION?

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The energy demand increases as a result of the population growth, which has led to the exhaustion of the world's fossil energy supplies. So, society has to come up with a new way of generating energy using fewer materials. Nuclear fusion is a process that takes place in the sun's core. It occurs when intense pressure and heat fuse hydrogen atoms to generate helium and energy (Locke, 2014).

The history of fusion research started in 1905 when Albert Einstein proved that $E=mc^2$, the equation said that energy and mass (matter) were interchangeable. In 1919, Henry Norris Russell advanced a theory of the way stars evolve (DeVorkin, 2021). A year later, Francis W. Aston determined precise measurements of atomic masses. In the same year, Arthur Eddington stated that the sun could shine by converting hydrogen atoms into helium. In 1938, Hans Bethe proved that fusion produced the enormous energy emitted by stars (The Nobel Prize in Physics 1967, 2021). All the above-mentioned discoveries proved that nuclear fusion was possible. From the beginning of the 1940s the United States of America, the United Kingdom of Great Britain, and the Soviet Union started secretly working on taming thermonuclear fusion. Lyman Spitzer suggested the containment system of plasma by the magnetic fields called a stellarator. His idea was fundamental in the '50s and '60s until the Soviet Union had made significant progress. The tokamak is almost the same as the stellarator, but the plasma is kept in a container in the shape of a torus.

The type of nuclear reaction fueling power stations is called fission. Fission is the splitting of atoms to release energy. Fusion is quite the opposite. Fusion is the coupling of atoms of hydrogen together producing a great amount of energy (Dunning, 2021). There are 3 known types of fusion reactions: proton-proton chain (as seen in stars), deuterium-deuterium reactions, deuterium-tritium reactions.

International Thermonuclear Experimental Reactor (ITER) is an international

project founded in 2007 to research nuclear fusion and develop the world's first nuclear fusion reactor. The construction takes place in southern France.

In conclusion, thermonuclear fusion is the best way to generate energy. This method doesn't emit harmful toxins, has no risk of meltdown, and is much cheaper for users.

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HOW TO READ HUMAN'S MIND WITH THE HELP OF ARTIFICIAL INTELLIGENCE

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In recent years, the IT market has seen a real boom in the field of solutions based on artificial intelligence. And this is not surprising: modern computing and neural network technologies have reached a level that allows AI systems to solve practical problems that are very difficult for humans, and developers can create innovative