

Chinese artificial sun gets hotter than real Sun



Going beyond the limits and rules of nature has become a fascination to the humans and the recent most example of this is the Chinese artificial sun. Experimented by an institute in China, the artificial sun developed by China is the hottest ever nuclear fusion experiment performed on earth and its temperature exceeded the temperature of real Sun!

Yes! The fusion reaction research carried out at the Hefei Institute of Physical Sciences in China and researchers claim that the temperature of the artificial sun's plasma reached limits of 100 million degree Celsius - which exceeds the original temperature of the sun itself. For the sake of comparison, the temperature of the real sun is 15 million degree Celsius which is about six to seven times lesser than what artificial sun generated. And all that makes the artificial sun experiment to be the hottest ever nuclear fusion experiment ever performed till date; and is also the most reliable project carried out on the basis of nuclear fusion and energy generation.

Other than being hotter than the Sun, this high temperature of this experiment has another significant finding, i.e. for any fusion reaction to sustain itself on its own, it has to achieve minimum temperature of 100 million degree Celsius. The Chinese sun is particularly designed to carry out processes similar to real sun and which is why, it was set up at the Experimental Advanced Superconducting Tokamak (EAST) fusion reactor developed in 2006. A 'Tokamak' is basically a special reactor designed to generate oscillating and powerful magnetic forces inside its doughnut shaped core during a nuclear fusion. The outer walls of a Tokamak are capable to absorb humongous amounts of heat from perpetual atomic splitting going on in the generator.

Fusion reaction is considered a potential source for global energy supply and nuclear reactors like EAST with almost infinite supply of energy that is clean are a perfect choice for that. Currently, there are certain hurdles to bring out this process as an energy source as it requires certain amount of external energy to sustain the reaction. One of the longest recorded reaction was at the Tore Supra Tokamak in France (also known as WEST), which went on for 6 minutes and 30 seconds in 2003. But with the temperature limits reached near to the self sustaining ones, (100 million degree Celsius) we can hope that the artificial sun will introduce a new source of energy to the world.