

The Sun and a Stars, inflation and explosion

The Sun is a tiny model of the young starburst spiral galaxy nucleus. the super massive precursor star of the Milky Way has died after formation of the galaxy and produced super massive black and invisible nucleus of the recycled neutrons (**without positrons and electrons**). The Tiny model of the precursor parent star has small size and repeats all nuclear processes in miniature. Main spots around the Sun are too small for the formation of the embryonic gaseous planetary mass objects. Spots are formed within the both hemisphere, on the both sides of the equator. Light, heavy and super-heavy nuclear streams create spots and its explosion in the interior of the convection streams can't create planets. Nuclear explosions are too small for the formation of the embryonic planets. Main spots produces huge protuberances and multi-stage dispersed spot masses lots of flares only. these event produce nuclear wind of the planetary elements. Sun's convection streams can split the spot-streams and spread spot-masses into convection streams (multi-stage separation of the heavy and super-heavy nucleuses). Sun has a core - **Ultra Dense Nucleus (UDN)**. <http://www.neutronrepulsion.ge/Researches/42.pdf> Neutron repulsion and neutron emission is an important source of the energy and produces main fuel for the thermonuclear reactions, i.e. neutron decay products protons. Around the core a lot of protons are forming thermonuclear reactions zone and thermonuclear wind of the protons neutrons and alpha particles. During milliards of years evolution disappearance of the neutron emission and neutron decay products protons produce dead full explosion. In the old stars supply of the thermonuclear reaction zones (proton/neutron ratio) by protons decreases with increasing inflation of the shell. Deficite of the protons produces violent tripluy alpha proceses, disappearance of the radiative zone, inflation and catastrophic abundance of the super heavy elements around core that causes huge explosion of the Star. Permanently creation protons by neutrons and vice verse is reason of the displacement recycled neutrons to the centre of the UDN. After for billions of years of evolution Huge concentration of neutrons in the centre will create fiery pulsar. Cooled pulsar forms black UDN after thermal evolution of the naked nucleus. Before explosion a star, accelerations of the alpha particles from UDN impossible because of insignificant proton/neutron ratio of the core. violent thermonuclear reactions are fully replaced by triple-alpha processes and alpha processes. Fusion of the helium-4 nuclei (alpha-process) is known as the triple-a-process Violent nuclear synthesis reactions rapidly create enormous amount super-heavy nucleuses around core. Before explosion star becomes very active . The carbon star is last stage to the old stars before explosion. Star luminosity can increase hundreds of billions times rapidly by huge nuclear reactions.

The surface composition of the Sun shell consists of hydrogen (about 74%), helium (about 24-25%), and 1% the other elements by surface, including Iron, Nickel, Oxygen, Silicon, Sulfur, Magnesium, Carbon, Neon, Calcium, and Chromium. interior of the Shell has an abundance of the light (alpha) elements (<http://www.neutronrepulsion.ge/Researches/44.pdf>) and highly radioactive matter in the spots has an abundance of the heavy and super heavy elements. Whole shall of the Sun is a cradle of nuclides due to violent bombardment by thermonuclear wind of the protons neutrons and alpha particles from the radiative zone. Each spot is an important genesis system of the heavy and super-heavy nuclides that produces violent nuclear reaction from the spots and solar activity that connected to the magnetic intensity.

The Sun has a spectral class of **G2V**. G2 means that the surface temperature equals approximately 5,780 K, giving it a white color which, because of atmospheric scattering, appears yellow as seen from the surface of the Earth. This is a subtractive effect, as the preferential scattering of blue photons (causing the sky color) removes enough blue light to leave a residual reddishness that is perceived as yellow. (When low enough in the sky, the Sun appears orange or red, due to this scattering.)

About **98-99%** of the Sun mass is accumulated within core (UDN). There is unbelievable temperature, and permanent proton-neutron changing, proton creates neutron and vice versa. (Positrons end electrons are wandering into UDN. Proton-Neutron changing changes directions of electrons. This event changes magnetic intensity of the UDN little by little). Formation of the deuterium within the core is impossible. Reversal of the Sun's magnetic field appears to change within **22-24** year in between. Declination from this period takes place as well there. Our star has huge zone of the ray-energy transfer (thermonuclear wind zone) around the thermonuclear reaction zone. The huge convection stream zone is formed by

violent thermonuclear wind and alpha processes.. During the maximal Sunspot activity around 10 percent of the whole energy produces violent nuclear reactions within spots. Interior of the shell is enriched by iron and other heavy elements. Visible surface is a photosphere. Nuclear wind from the Sun are formed by nuclear reactions into deep interior of main Sun spots and multi stage separated small compact spots' masses in the convection streams.

