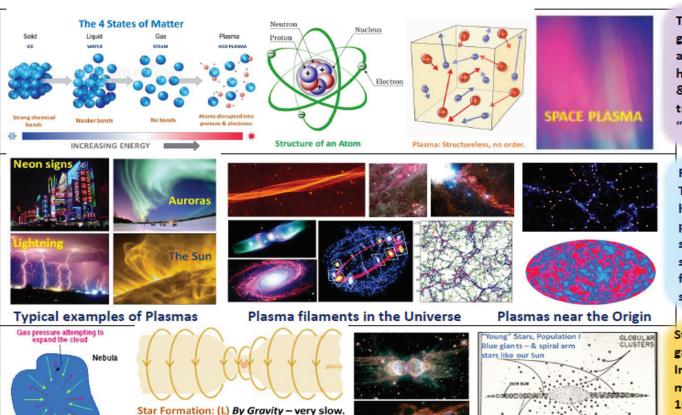
Gravitational force attempting to collapse the cloud

Process gravitationally

PLASMA ASTRONOMY & THE BIBLE:

Plasma topics in 4 panels

Summary of each panel



There are 4 states of matter: solid, liquid, gas & plasma. All states except plasma have atoms organized & ordered. Even atoms have this. Only in plasma is matter formless & vacuous as in Genesis 1:2. There the word translated 'earth' is ERETZ (Heb.) meaning "that which is firm," or basically 'matter.'

Plasmas are charged particles in motion. This forms electric currents, & all currents have circling magnetic fields. This causes plasmas to form in filaments or sheets on all scales from small up to those making galaxy spiral arms. Galaxy & quasar plots show they formed along filaments. Origin data shows sound waves shaped 1st plasma (Psalm 33:9)

Star formation by gravitational collapse of a gas & dust cloud can take 10-50 million years. In plasma, filament instabilities cause circling magnetic fields to pinch to a ball - in the lab in 100 nanoseconds. Upscaling this to cosmic plasmas forms stars fast. In galaxies, hub stars form 1st (old stars, Pop II - 'Morning stars' Job 38:7) & young spiral arm stars later (Gen.1:14)

Galaxy Formation takes over 1 billion years by gravity. Interaction of 2 or 3 Plasma filaments forms miniatures of all galaxy types in the lab in 0.25 seconds. In the core, 1st a quasar & its polar jets form, & Pop II stars (just as in Lab). As spiral arms develop, Pop I stars form. Time upgrade to cosmic size from the Lab & ZPE

data shows galaxies formed in 4 days (Gen.1).



that ball forms a star at the Z Pinch - fast. GALAXY FORMATION: 5-step Sketch of filaments



(Above) Lab Plasma - instabilities in flow of current causes circling magnetic field to

pinch the plasma to a ball. (R) In space -

Peratt's lab experiments & simulations gave this interaction sequence with plasma filaments & parallel currents. Looking down the long axis of 2 filaments in cross-section at the closest approach, a miniature galaxy forms! All galaxy types formed from 3 filaments



. Pop II stars in core by T = 600 Pop I stars by T = 1750 to 2500 Quasar & galaxy core

For further information go to: www.barrysetterfield.org