

Scrolled Presentation of Fig.1--Fig.2--Fig.3--Fig.4 for Article:
 "Nuclear Fusion Mass Loss, Crevices between Nucleons,
 and an Improved Method of Calculating Binding Energies"

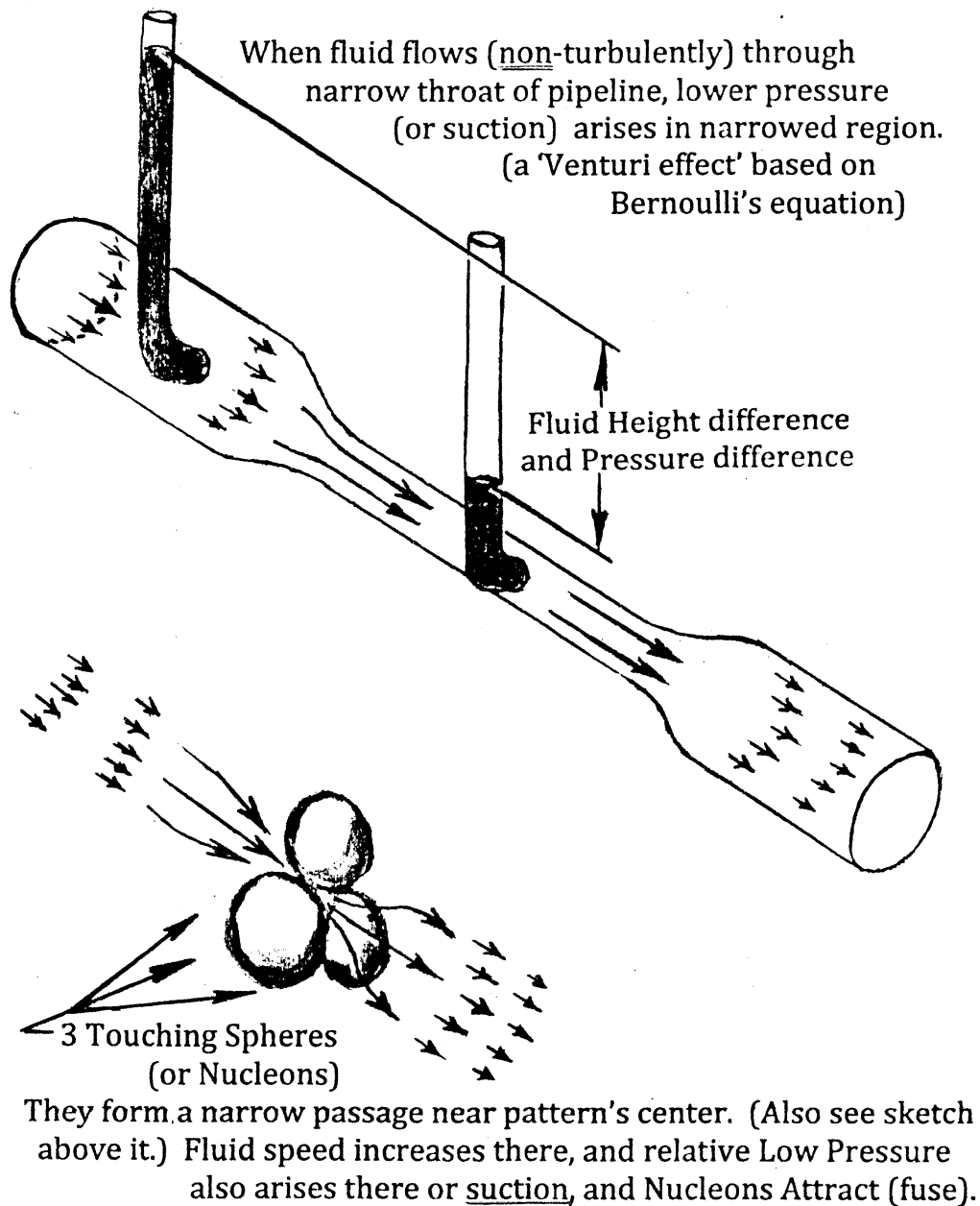


Fig. 1; Proposed Model for Nucleon Fusion
 (For cases where great energy is released)

Shown below is Fig. 2.

Two very small spheres shown, each barely fitting through 'donut hole' at center of a big 3-sphere pattern of 3 big touching nucleons. If each of the big 3 nucleons has a relative mass of '1.004977366 u'; then the total mass of the two very small spheres (each barely fitting through the pattern's hole) = '0.00744152 u'.**

Three nucleons of light isotope 'Helium-3', with each nucleon having an average mass or vol. = $3.0160293 \text{ u} - (2) \times 0.000548580 \text{ u}$ (3) nucleons

equals an ave. mass or vol. (for each big nucleon) of 1.004977366 u.

In the above expression, the relative total mass or vol. of (2) electrons, Ref. '(2) $\times 0.000548580 \text{ u}$ ', was subtracted from the mass or vol. of Helium-3, Ref. '3.0160293 u', because (2) of the electrons of Helium-3 are orbiting its nucleus, instead of adding to the nucleus' mass or vol.

Compare that est. above (Ref. 0.0744152 u **) to our e,p based Binding Energy result, determined as follows:

Relative mass of the starting ingredients, before fusion, are (3) Hydrogen-1 atoms each of mass 1.007825032 u and net neutral charge:
 So $(3) \times 1.007825032 \text{ u} = 3.0234751 \text{ u}$;
 and mass of final fused neutral Helium-3 atom made = 3.0160293 u;
 Difference (i.e., before - after) is relative mass or vol. = 0.0074458 u; ***

Note: Our theorized mass loss (est.), Ref. 0.00744152 u **, is very close to the e,p based 'Binding Energy', Ref. 0.00744580 u; ***, an error of only about -0.00000428 u, or 0.06% error.

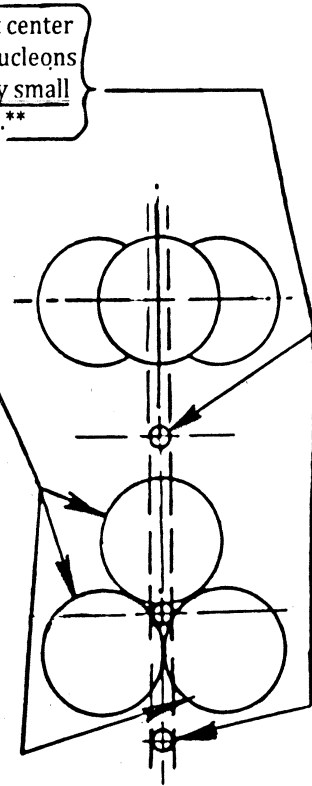


Fig. 2; Three Spheres or Nucleons – in a '1 Triangular plane', having about $\frac{1}{4}$ th the 'binding energy' of four nucleons in a tetrahedral array with '4 Triangular planes'. (Also see Fig. 3.)

Shown below is Fig. 3.

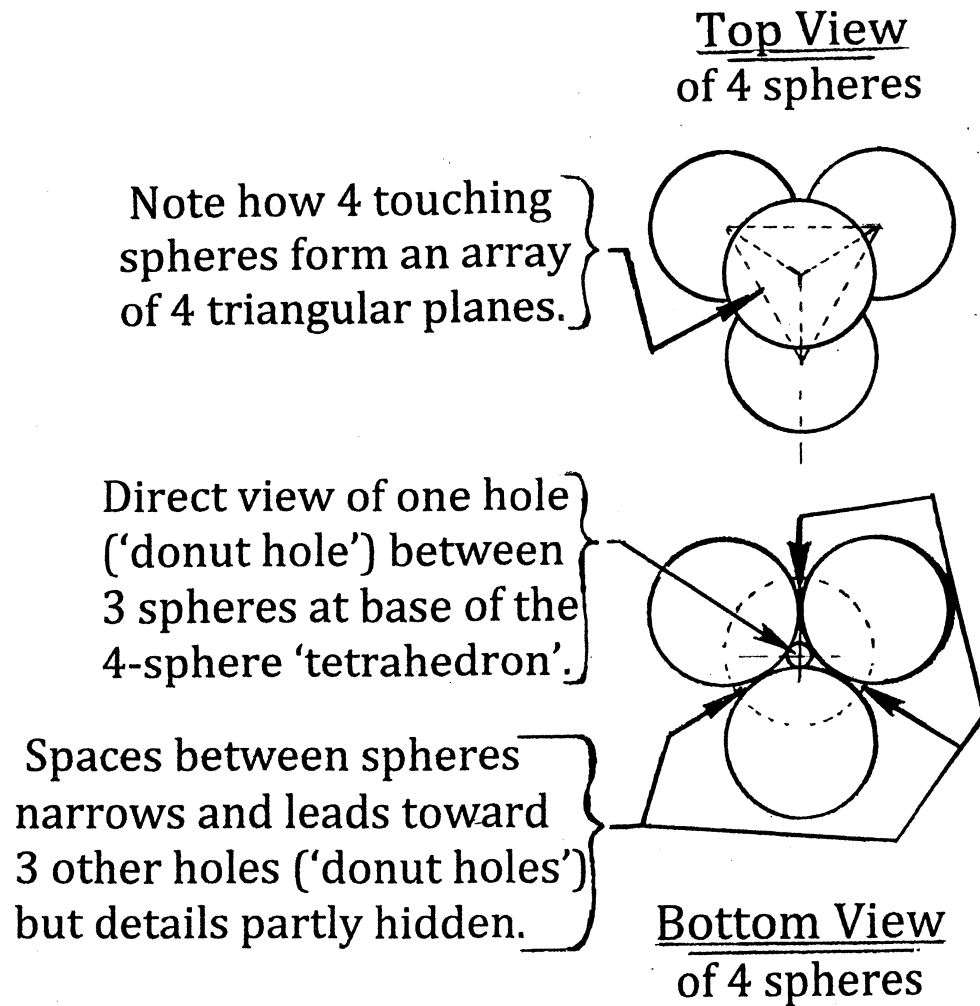
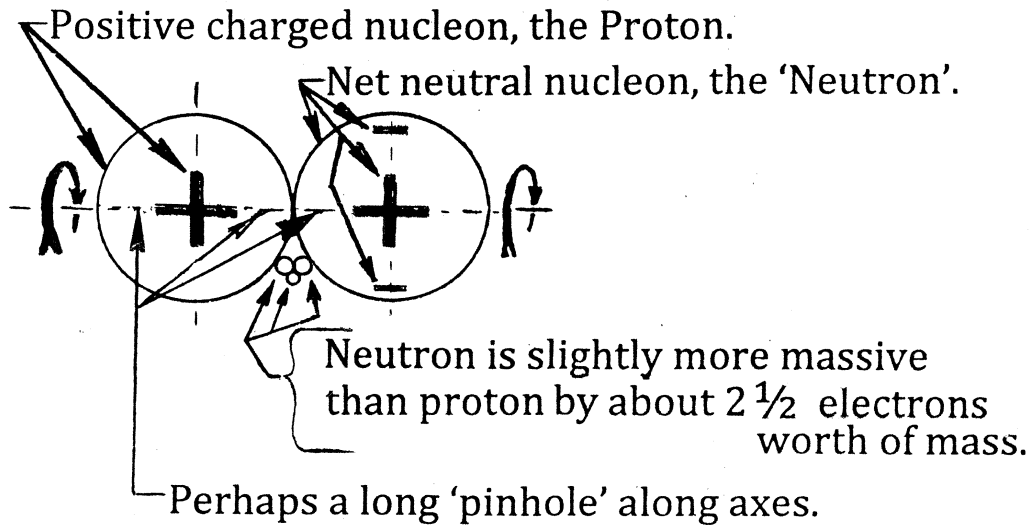


Fig. 3; Four Spheres or Nucleons – in a tetrahedral array of 4 triangular planes. Has about 4 times the binding energy of 3 fused nucleons in a 1 triangular plane.

Shown below is Fig. 4.



Note: The 'weak' binding energy of a Deuteron seems comparable in magnitude to the (mc^2) energy of a few electron masses. It thus seems related to a relatively small 'ethereal flow' that may be the cause of so-called 'charge', itself.

Fig. 4; A Deuteron, two Nucleons, or two Spheres. Any other sketch details totally conjecture, not really known.

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