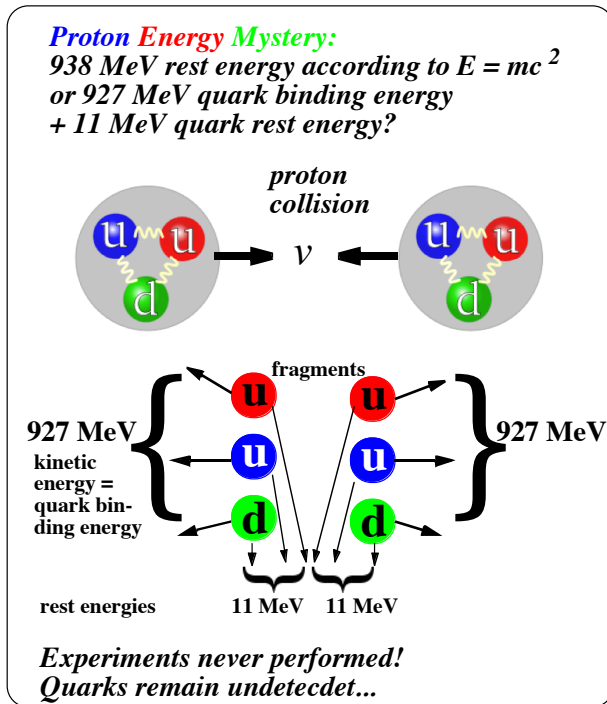


### Quark theory questionable



[www.sr.bham.ac.uk](http://www.sr.bham.ac.uk): It is believed that nucleons are made up of quarks. Two up and one down quark make a proton and two down and one up

quark create a neutron. Quarkists claim that a proton is comprised of two up quarks and one down quark. A measured binding energy of quarks is not known... Note that there is no empirical evidence for quarks. A proton allegedly possesses a rest energy of 938 MeV that has

never been confirmed experimentally...

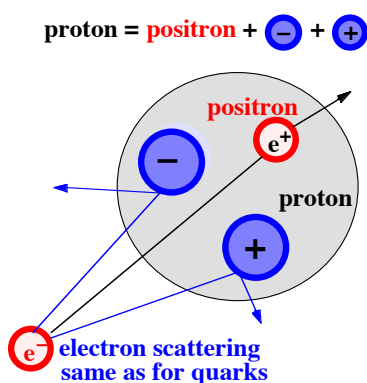
Wikipedia increases the confusion with the allegation that the rest energy of the 3 quarks accounts only for 11 MeV.

So the overwhelming part of the rest energy is not rest energy but binding energy, namely  $938 - 11 = 927$  MeV!

Neither the relativistic proton rest energy 938 MeV nor the 927 MeV binding energy + the 11 rest mass energy of quarks are confirmed by experiments...

The binding energy balance of  $p + n \rightarrow D + \text{radiation energy } E_R$  is impossible:

$$927 + 927 \neq 2,225 + 2,23$$



There is no experiment that validates the huge rest energy of the proton.

Collisions of electrons and protons show electron scattering.

This scattering is no proof for the existence of quarks because other distributions of charges inside of the proton can show similar scattering results.

Conjecture: A proton consists of one positron (+ charge) and of a pair of  $\pm$  charges. If we detach a positron from a proton, we obtain a neutral residual that contains plus

charged and minus charged particles.

The magnitude of charges of the pair is unknown.

See the figure.

(Recall also the experiments of Hochstädter, which detected a charge distribution.)

A positron as a constituent particle of the proton explains beta plus ( $= e^+$ ) decays!  
For example the instable  $^{14}_8\text{O}$  decays and emits  $e^+$ . Recall that 50% of beta decay products consist of positrons,  $e^+$ .

Ergo protons, neutrons and also hydrogens contain positrons.

Free protons are very stable. One variety of the proton decay is:  $p \rightarrow e^+ + \pi^0$

For the Rutherford-Bohr atomic model positrons don't exist!

### ***Colliders:***

***Is it possible to detect the constituent parts of protons by huge bombarding energies?***

So far, bombarding energies up to 8 TeV have served for collision experiments, suggested are 10 TeV,

that is equivalent to 99.99991 % of  $c$  (velocity of light).

Collider experimentalists are on the wrong track because the natural constituent parts of protons undergo destruction during such collisions...

After collision, protons are bombed to rubble!