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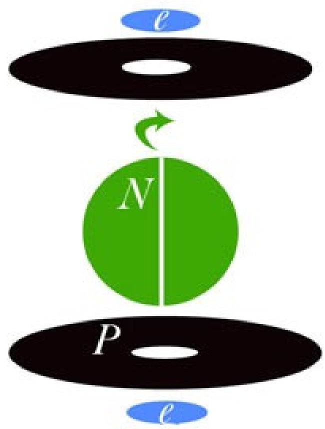
Deuterium and Tritium

including a close look
at proton-proton reaction



by Miles Mathis

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In this paper, I will use my nuclear diagrams to better explain the qualities of Deuterium and Tritium. I will also study the current theory of proton-proton reaction in stars.

Deuterium is the form of Hydrogen with one neutron in the nucleus, rather than none as with Protium. Tritium has two neutrons with the one proton. Hence I will call Hydrogen or Protium 1H, Deuterium 2H, and Tritium 3H. Although 2H is written 2-H, always remember that it is composed of one proton and one neutron. This will be important below.

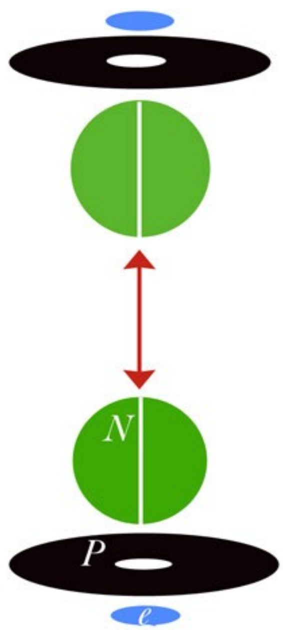
If you consult the diagram above, you will see 2H in the lower part. Since 2H is almost always found bonded to H in a molecular form called Hydrogen Deuteride (H-2H), I have diagrammed the entire configuration. The neutron is used as a charge bond between them, and I have drawn the axis of the neutron so that you can see that. Since I have shown in previous papers that the neutron is not really neutral in many nuclear configurations, but is channeling charge pole to pole, it can easily act as a channel here. When interacting with protons, the neutron cannot channel at the same strength as the protons, but it can channel quite strongly in some positions. We can see that from its magnetic moment, which is about 68.5% that of the proton as a matter of strength.

Just to be clear, I commonly diagram neutrons as circles and protons as disks, only so you can tell them apart at a glance. I am *not* implying that the neutron is a sphere while the proton is not. Since what I am really drawing is the charge fields emitted by these particles, what I am implying is that the proton has a stronger emission, which makes it *act* more like a disk in the field. The proton's heaviest charge emission is near its equator, in other words, which makes the proton act like a disk in the charge field.

By drawing the proton as a disk, I can also indicate at a glance where the field potentials are. The proton takes in charge at its poles, which I diagram as a hole in the middle, and emits at the equator, which is indicated in 2D by the pointy ends of the disks. Since the neutron doesn't do that, I don't draw it as a disk. The neutron never emits at its equator, recycling charge through its poles only.

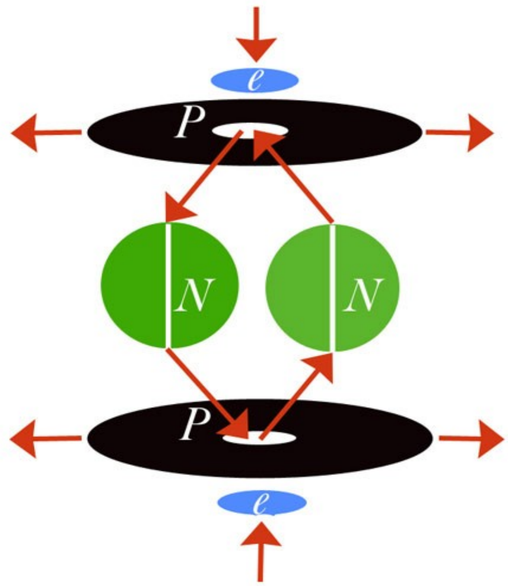
It is currently proposed that the .0156% of 2H in the oceans is left over from the Big Bang, but we will see that is another grasping mainstream theory, promulgated only so they can insert Big Bang theory everywhere. I will show below that the production of 2H is not from the BB but from the Oxygen in water. We should have already known that from comets, which contain water and have the same percentage of 2H as the oceans. We should have also known it from the fact that different kinds of water have different 2H abundances.

But first let us look at more basic things. It is known that building Helium4 (He4) in stars requires us first to build two nuclei of 2H, and the reason for this becomes clear as we study my diagrams. All that has to happen is that we have two opposing 2H's, that the charge streams of the two neutrons align, and the two 2H's will come together and join. Like this:



That coming together is caused by the fact that the charge field is moving in both directions. Remember, we have both charge and anticharge throughout the galaxy and universe. In my diagrams, photons go in the south pole and antiphotons go in the north.

In previous papers, I have mostly ignored the roles of the neutrons in charge channeling (except in the case of Period 4), but this current analysis will require me to finetune the mechanics of the neutrons in Helium4 and other small elements. You can already see that the neutrons aren't only acting as posts to keep the protons from turning, they are also acting as charge channels. I didn't wish to complicate my early models or theories by discussing the neutron's charge profile, so I stuck to proton channeling there. But we can now see the need for a more extended mechanics. We need to know how these 2H's actually fit together, neutrons and all. Do they fit end-to-end, as drawn above, or do they go side-by-side, as I have drawn them before? Due to the known compactness of the He nucleus, as well as to the compactness of all other nuclei, it must be the latter. In previous calculations on larger nuclei which are composed of He nuclei, I have found the height and width of the nuclei by assuming my He sandwich, with the neutrons side-by-side. This gave me the correct ratios to match current data, so I assume that as strong indication of my first diagram of the alpha.



That is the He sandwich I was talking about, but here I have drawn all the main charge vectors. From them, you can see that the neutrons *must* bond in He4 side-to-side. The left neutron is then channeling the anticharge of the upper 2H, but since the bottom 2H is upside-down to the top one, it doesn't *feel* that charge as anticharge. It is looking at the anticharge from the other direction, so it sees it as charge. Which of course means our two neutrons are reversed. One is upside-down to the other. In some way, it is now an antineutron.

Interestingly, the mainstream knows this, in a way. In this situation, it also admits the neutrons are anti-parallel. However, since according to mainstream theory all spins are intrinsic (not real), the standard model can't use mechanics or diagrams to explain any of this. Of course they do that on purpose. Because they weren't able to explain any of this sensibly and directly decades ago, they just gave up and started calling everything intrinsic or virtual. That way they don't have to draw anything for you or make sense. They can forbid you from trying to visualize it and make sense of it, which is the perfect protection for their half-baked and non-physical theories. It also allows them to fudge equations much more easily, since if you aren't applying the equations to sensible diagrams or firm variable assignments, you don't spot the fudges. The mainstream figured out long ago—following Bohr and Heisenberg and Born—that if you want to sell and protect a theory full of obvious holes, the best thing to do is cloak it as much as possible. And the best way to do that is to bury it under virtual particles and fields and unassigned math, and forbid anyone from trying to visualize it. This is why they start every course on quantum mechanics—first hour, first day—with the warning that none of it makes sense. They tell you there is something wrong with *you* if you ask it to make sense. They tell you new physics is utterly new and improved, and it is improved because it "transcends" all the old rules about making sense. Physics as modern art, in other words. Selling magic as physics.

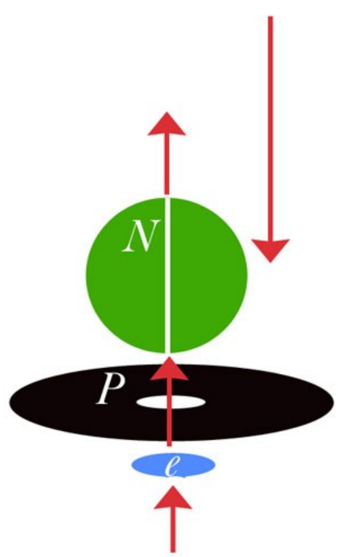
In my first attempts to diagram the alpha a couple of years ago, I put the electrons inside the sandwich;

but now you will notice they are outside. It became clear to me that ionization required the electrons to be in the outer eddies, not the inner ones. [The Balmer equation] also strongly indicated that, with its + and – terms. The way elements ionize before bonding also indicated that, so that is the way I now draw it. However, it may be that the electrons of interior alphas in the architecture of larger elements are driven to the interior positions, and I leave the question open as to whether electrons can inhabit a variety of eddies in the nucleus, depending on the physical situation.

But let us return to 2H, by itself. Why would it be more fragile than 1H? We are told that stars don't commonly produce 2H, or if they do, "they break it up as fast as it is produced." Why would they do that? Well, we have already seen the answer above: stars are making Helium (3 or 4), and so they don't leave any 2H lying around unbound. This means that they *don't* break up 2H and that 2H is not really more fragile. Stars don't break it up, they fuse it. Fusing is what I diagrammed above. The heavy charge streams in stars simply make it very easy for those 2H's to come together, and so once the star has produced the Deuterium, the Helium naturally follows.

That begs the question: If that is so, it would mean that stars "naturally" produce exactly equal numbers of up 2H and down 2H, not only globally but locally. If they didn't, some free 2H would certainly be found. How and why do stars do that?

They don't. There *don't* have to be equal numbers of 2H, since either the up or down sort will be used up making He 3 or 4, no matter what. We already know that 2H is ripe for bonding, either molecular or nuclear fusion, and we can tell that from Hydrogen-Deuteride. The charge channel created by that neutron on the pole creates a field potential begging to be filled. On the Earth, the weak charge channel gives us a molecular bond. In a star, it gives us a potential fusion bond. The only question in a star is whether a neutron or a proton will pass by first. If a proton, we get He3, if a neutron, we get He4. It is that simple. If the charge streams in the star are strong enough to create the fused bond, we will get He production. If they aren't, we don't.



As you see, the up 2H is channeling up only. Although the down charge stream also exists, it is being left out. We have seen previously that all other larger nuclei channel both up and down, but this 2H is only channeling up. Since charge and anticharge tend to run in the same lines and channels, just in the reverse directions, the charge coming down will align to the charge going up. But since it is a "free channel", containing no baryons, it will tend to pull baryons into it.

It does this simply with field potentials, like any other particulate wind. Wind at our level does the same thing, pulling particles into it, so once again I am just importing classical math and theory here. All you have to do is remember that all these baryons exist in a charge stream to start with: we are just looking at where the heavier densities are. Nuclear channeling will create stronger and denser charge streams than the ones that already existed in the ambient field, so what is happening is that baryons are being pulled from less dense streams to more dense streams. The photons and antiphotons are already moving in that direction (from less dense to more dense) and they are just bringing the baryons along with them. So no real attraction is taking place.

To understand this better, let us look at the kind of potentials we see every day. As a common example, it may appear that debris in a stream or wind is attracted to the densest part of it, but the debris is simply being carried by the material around it. There is no real attraction, only a movement from one potential to another. In a similar way, in a star charge is "attracted" to nuclei by the vortices at the poles of the nucleus, and the poles create these vortices with the spin of the sphere. So field potentials naturally create all apparent attractions in this case, with no real attractions necessary.

Given all that, the empty down charge stream will attract to it baryons that are not already locked in charge streams. Not only that, but the charge stream will align those baryons to itself. Both the neutron and the proton will align their poles to it. When the baryons come together, not only will we have a fit, we will have a forceful fit. The meeting of the charge stream up and the charge stream down will press the four baryons together, which is what we call fusion. Fusion is just a plug that has been filled very forcefully, making it quite secure.

This is why we don't see free 2H in stars. A question I might be asked is, "Why don't we see production of Hydrogen Deuteride in stars, instead of Helium? To understand it, we have to understand exactly what Hydrogen Deuteride is. H2H isn't fused, you know, it is just a molecule. It can therefore be created and broken up far easier than He. It is created on Earth in normal, low charge, low heat situations, and all that is required that the H and 2H meet in the right way. But in a star we have high heat, high charge situations, and that environment actually *prevents* the H2H molecular bond. There is too much charge being channeled, which is why we see *no* molecules where stars are fusing. Any bond we see being created will be a fusion bond, not a molecular bond.

So the question becomes, why doesn't the star just fuse the H2H, giving us He3? It does. According to my theory and diagrams, stars produce at least as much He3 as He4, but they use He3 in the next round to create larger elements. So this He3 gets used up first. That is why you see so much more He4 in galaxies and Solar systems. Even smaller, cooler stars like red dwarfs that don't fuse into Lithium never release their He3, since their lifespans are so long. These stars may have lifespans over the age of the universe, so of course we will never see their He3. What we see is the He4 released when larger stars go nova. These stars will have fused their He3 into Lithium, but will have done nothing with their He4. It gets released when they explode and finds its way into planets and so on.

You will say, "Great, so why don't we see 2H getting used up in the oceans or in Jupiter?" We don't see it because it requires these strong charge channels in stars. Stars are recycling a lot more charge than the ocean is, or even Jupiter. In material with less heat and charge density than stars, 2H is not created this way, and it isn't fused into Helium. So none of this applies outside of stars.

We know that Helium isn't fused in the oceans or Jupiter, so we will skip that. It isn't a question I have to answer. I only need to answer where the 2H comes from in the first place, in oceans, planets, comets, and so on. I have said above it doesn't from the Big Bang and we know it doesn't come from stars, so where does it come from? The problem with mainstream theory is that it assumes that 2H has to be created under extraordinary circumstances. But we have no real indication of that. I have shown that we need extraordinary charge and heat to create the opposite 2H and then the He4, but the initial 2H may be somewhat easier to create than we think. Remember, this is only a N-P bond, not a P-He bond or a He-He bond. The elemental bonds we have looked at so far have all been of the latter two sorts. Those bonds are very strong, and they have to be created or broken under extraordinary circumstances, usually in stars. But it may be that the N-P bond, though stable, does not have to be created in stars, galactic cores, or Big Bangs.

You will say we have had no luck fusing neutrons and protons directly, and we assume that is due to the Coulomb force or some other problem. But I will show we have had no luck because we don't understand the charge field. If we study how Nature creates Deuterium, we will see how charge enables the bond.

In previous papers, I have shown that we have evidence of larger nuclei doing extraordinary things to smaller nuclei, when the two are brought very close together. This is because the charge channels very close to the nucleus are amazingly dense, and under the right circumstances we have seen star-like strengths from these channels, causing proton and neutron re-arrangement in the outer levels of the nucleus. For example, we saw the four Fluorines re-arranging the charge channels and even the outer protons of Carbon in Carbon TetraFluoride. We saw Platinum with the help of Fluorine forcing an entry into Xenon, and creating a compound with a Noble Gas. And we saw a passing neutron being able to break Uranium into Krypton and Barium. So we know some pretty extraordinary things happen outside of stars.

In this case, it is simply Oxygen that is creating 2H. But Oxygen can't do it in normal circumstances, since Oxygen is normally a gas. To create 2H, we (usually) need the Oxygen in water, which has the extra charge channels of its two Hydrogens, as well as the density of the water itself and its added polarity. Before we get to the mechanism, I will tell you how I knew Oxygen had to be creating 2H. One, we see 2H in the oceans. Two, we see 2H in the same concentrations in comets, which also have water or ice. Three, we see 2H in Jupiter, but in lower concentrations. I only had to do the math to see it was the water that was causing the production of 2H. The concentration of 2H in the oceans is .0156%. The concentration of 2H in Jupiter is said to be about .0022%. This means Jupiter has about 14% as much as the Earth. Well, how much water does Jupiter have? We are told it has about .0004%. How much water does the Earth have? About .01%. Jupiter has 4% as much water. So we are off by about 3.5x. Jupiter doesn't appear to have enough water to create that much 2H by my method, so if a mainstream physicist tripped on this idea, he would quit there. The numbers don't resolve. But he simply didn't look close enough. To solve this, we have to compare the charge channeling of Jupiter to Earth, to compare the strength of the charge streams. Jupiter has a mass of 318 Earths and a surface area of 122 Earths, so on the surface it will have a charge strength per area about 2.61x the Earth. This charge strength will help the water create the 2H, so we are now off by only 1.34x, instead of 3.5x.

But we have another easy correction. Since water is in the form of ice on Jupiter, its density is only 91.7% that of water on Earth. If water were liquid on Jupiter like on the Earth, Jupiter would be able to create even more 2H with that extra charge density. This would take our margin of error down to 1.19x.

That is already close enough to make us look very closely at water, but if we recognize that Galileo and

ISO-SWS estimates of water on Jupiter may be too low, this would bring the number even closer to 1. Remember, we are comparing the number on Jupiter to the number here, but water exists on Jupiter in a way far different from here. Here, all the water is in the oceans, which are right on the surface. On Jupiter, the water exists as ice which may inhabit many layers of Jupiter's atmosphere and upper body. Since upper layers may shield lower layers from satellite measuring devices, we are probably not detecting all the water (or oxygen) in lower layers. We still don't know how much water is in the crust of the Moon, since the number has changed many times in the past couple of decades. The numbers from Jupiter for 2H and water would only have to change by a product of 19% to bring our number here down from 1.19 to 1, in which case we would have a large red flag on that water.

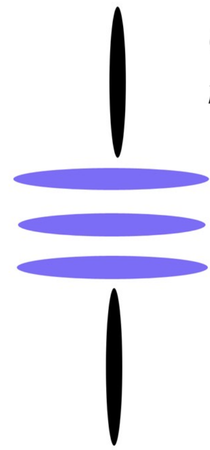
That is what led me in to this solution, but now let us look at the solution itself. To start with, here is something curious: Oxygen is normally Oxygen16, with 8 neutrons; but Oxygen17 is also stable. And the percentage of Oxygen17 as a fraction of total Oxygen is .0039%. Do you remember the percentage of 2H as a fraction of H? It is .0156%. That is curious because the ratio is *exactly* 4. Also curious is that places like Wikipedia admit that "in seawater there is approximately twice as much Oxygen17 as Deuterium." They can admit that because that is only an approximation. It doesn't give you exactly 2. But they *don't* tell you what I just told you: If you divide the abundance of Oxygen17 as a percentage of all Oxygen by the abundance of 2H as a percentage of all Hydrogen, you get *exactly* 4.

This immediately indicates to anyone that is both physicist and mathematician that there is some link between 2H and Oxygen17. The link is pretty easy to unwind, too, since we just have to remember that when water is created from O and H, we have four H's present at each local site of creation. Each Oxygen arrives as a diatom, so at each point of water creation, you have two O's and *four* H's. What this indicates, logically, is not that Oxygen17 is creating 2H, but that both Oxygen 17 and 2H are byproducts of the same reaction, a reaction which yields two 2H's for every one Oxygen17.

I will start by writing the reaction, then show the mechanics of it with diagrams.

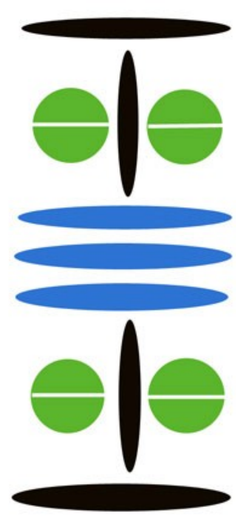
H-O16-H + 3n → H-O19-H → 2H + 2H + O17

This indicates that the production of 2H only requires the presence of free neutrons of a certain energy. The water molecule then is forced to accept the first two neutrons temporarily, something it wouldn't do under normal circumstances. But then the arrival of the the third neutron at one of the poles causes a fatal instability in the water molecule, which then breaks down. Two of the neutrons go with the Hydrogens and one stays with the Oxygen. We see how this is possible by studying the Oxygen nucleus:



Since the blue disks indicate alphas, there are understood to be six neutrons in the interior here. But Oxygen18 has two more neutrons than normal. Where do they go? They can only go in the central holes of those two protons (black disks). To see what I mean, we will go ahead and diagram the water molecule.

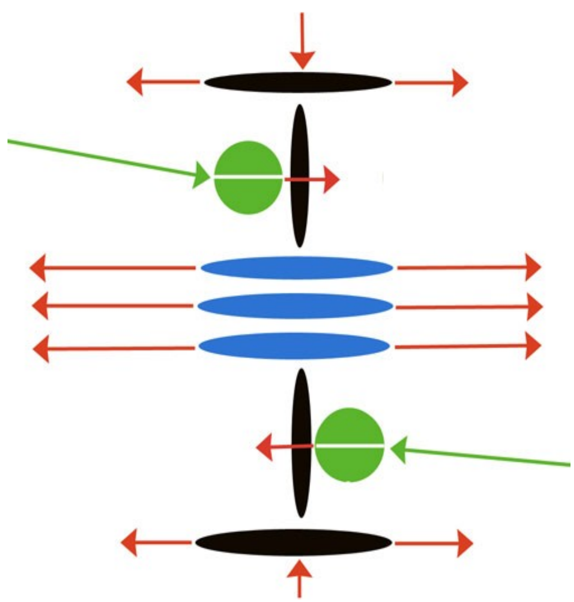
Once I got this far into the water molecule, I could see that my first diagram a couple of years ago was a little off. I had the Hydrogens bonded in the wrong place. This is what heavy water should look like, according to my latest analysis:



The top and bottom bonds between protons (black disks) are not fused bonds, but only molecular bonds. I have plugged the two Hydrogens in at top and bottom, as you see, and put the neutrons in the only holes that can take them. This is what our heavy water would look like in a neutron-rich environment of the right sort. Please notice I have drawn the neutrons in blocking positions, not channeling positions. That is what the horizontal white line through them indicates. In previous papers, I have called those position blocking positions, because although the neutrons are on the axis—in a way—they are not channeling *down* the axis. They are not channeling charge like the protons are doing. They are not channeling into the nuclear center, indicated by the three blue disks. Instead, they are channeling ambient charge through that hole in the axis proton. This allows charge to pass the greater nucleus left to right or right to left, preventing dissolution from the side. To read more about this, see previous nuclear papers.

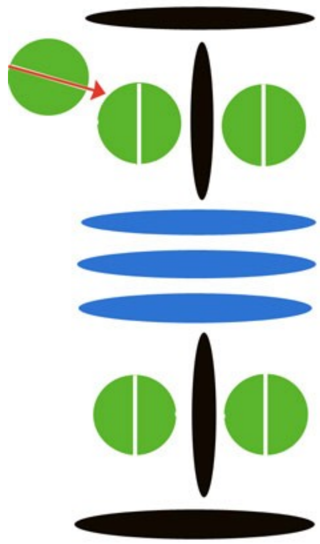
This kind of heavy water is not unknown, and physicists can now create it and study it in the lab, under NMR technology and highly magnetic fields. You may be interested to know that Oxygen17, which has only one of these two extra neutrons, has an anomalous nuclear spin of -5/2. What does that mean, and why does it have it? Well, the mainstream cannot tell you, but I can. All my nuclei spin about their poles, but only some of them also spin the other way as well. Oxygen17 would spin CCW in my diagram above simply because that one neutron has lopsided it. Had I not known that Oxygen17 had a non-axial spin, I could have predicted it. Anyone could have, after one peek at my diagram of it. But the mainstream cannot explain any of these things simply and directly, since they prefer to tell you the protons and neutrons are all superimposed at one place in the nucleus, or that they inhabit multiple places at once.

Now, we know this configuration of HOH still isn't stable in this situation, and you are about to see why. This configuration is possible only because the energetic neutrons in this field can get by the carousel charge channels. Those three blue inner disks are emitting heavy charge E/W in a circle, and normally that drives off all particles in that plane. But these energetic neutrons are able to sneak in the gap between the blue disks and the cap disks.

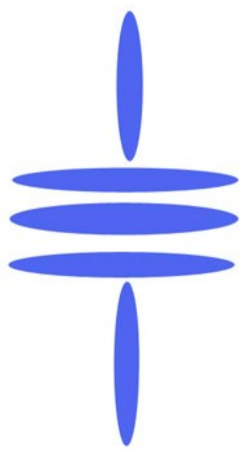


The problem is, since neutrons are energetic enough to get into those gaps, more will try to get in as well. After the four stable neutrons get in, a fifth will try to get in, but since those positions can't take any more neutrons, this will destroy the molecule. At first, to try to create new stability, the two neutrons that were already in the holes will turn away from the new neutron, moving their poles north/south. That is the attempt to stop channeling through the hole and drive off the new neutron. But that creates even greater problems, since once the original neutrons are turned, they are now channeling charge along the axis, like the proton.

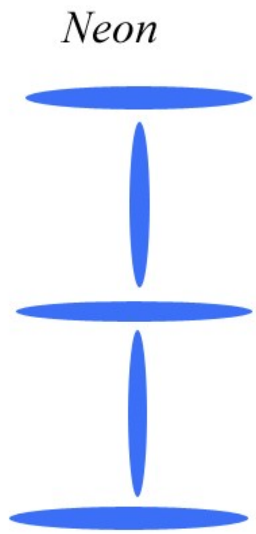
H-O19-H



That is immediately fatal to the water molecule, because too much through charge is now passing into and through the nuclear interior. Remember, we have seen previously that this nuclear configuration is not allowed.

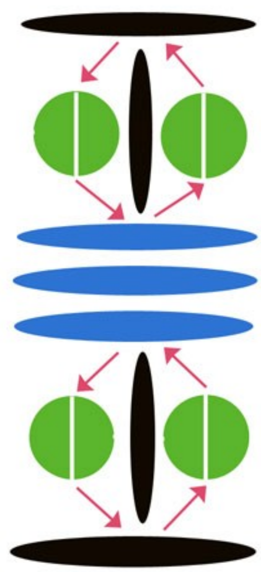


That would be atomic number 10, which would be Neon, but Neon is not composed like that. Neon looks like this:



But when the neutrons in water turn, they basically create the disallowed Neon configuration. The neutrons are then channeling like the protons, and too much through charge is created. If each neutron is channeling .685, the three baryons together are channeling 2.37. But the blue alpha can only take 2 units of charge. This ends up blowing the cap protons in our water molecule top and bottom right off. The through charge streams created by the neutrons turning push the H's off by main force. But as they go, *they take two of the neutrons with them.* In fact, the neutrons are pushed out by the force of the through charge as well, and that is how they are embedded or fused into the protons top and bottom. It is the charge stream that blasts them in there, you see.

You will ask why only two of them are pushed into the cap protons. Why not all four? Because charge is moving both up and down the axis, remember? Return to my diagram of Helium above, where I showed the neutrons channeling both up and down. They split the up and down charge, and they would do the same thing here. So only the one in the escaping charge field would be pushed into the outer proton.



And once the split had taken place, the neutron remaining with the Oxygen would be free to turn back sideways, as it was before.

So you now understand how 2H is created without the necessity of stars or other very hot places. Fusion is created here by the very near presence of a larger nucleus, and a turning of neutrons to create a nearly instantaneous increase in charge channeling.

But I still have some things to explain before we leave 2H. To start with, it has been found that Venus has about 100 times more 2H than the Earth, and there is almost no water on Venus. Doesn't this disprove my theory? No. I said that Oxygen causes the creation of 2H, not water. On the Earth, Jupiter, comets, and other places, it is the Oxygen in water causing the production, but anywhere we have Oxygen we have the possibility of 2H creation by my method above, or one very similar. Remember, Venus has lots of CO2. You will say it doesn't have the requisite Hydrogen, but we don't need Hydrogen for this reaction, we only need neutrons and protons. Venus gets plenty of both from the Solar Wind and from local ionization. Besides that, we know the mainstream is hiding the Hydrogen on Venus. If you check the composition of Venus at Wikipedia, you find no Hydrogen. But since we are told Venus has 100x as much 2H as the Earth, and 2H is Hydrogen, Venus must have some Hydrogen, right?

It turns out that Oxygen can use the mechanism above while in several molecules, including CO2, ketenes, aldehydes, and so on. A neutron-rich environment first loads the Oxygen in the molecule with extra neutrons and then the molecule breaks up. One of the byproducts is then 2H. Since these molecules are more complex than water, the break-up produces 2H with less reliability. But since Venus has a lot more of these molecules than the Earth does, it makes up for reliability with sheer numbers. Since Venus has about 10^4 more CO2 than the Earth has water, CO2 can produce 100 times less 2H than water (by the same general mechanism) and Venus will still have 100 more 2H than the Earth.

Another question I have to answer here is the well respected theory of proton-proton chain reaction, which the mainstream will tell me I have completely ignored. But I haven't ignored it: I have *overturned* it. You see, the P-P reaction is just an old theory about how stars *may* start the fusion process, but this theory still takes the strong force as given. I have shown there is no strong force. It was always *ad hoc*, and with charge channeling it is completely unnecessary. Based on their faulty fields and equations, the mainstream has always thought there was a huge force between nucleons, due to the Coulomb force. But there isn't. I have shown they overestimated that force by about 10^{22}, causing the vacuum catastrophe among many other things. They think it is about 10^{-7}N, while in fact it is more like 10^{-28}N. But in most baryon interactions, even that force doesn't come into play, since charge channeling allows baryon alignments that cause joining instead of repulsion. Besides that, the first fusion in stars isn't between a proton and a proton, it is between a proton and a neutron. We know that from Deuterium, which is the first product, and they actually have that part of the theory right. So why start with a proton and a proton? No one knows. It is done because it is done.

Eddington proposed the P-P reaction in the 1920's, and it is still in the same basic form...but with many newer pushes. One of these newer pushes is tunneling, which allowed them to ignore major flaws in their old equations. But I have already disproved tunneling previously. Another push is the use of beta decay to propose that one of the two protons decays into a neutron "during the brief moment of fusion."

You don't see cheats much more hamhanded than that. Although Hans Bethe won the Nobel Prize in 1967 for that cheat, it is still easy to disprove. Even before my diagrams, it was easy to disprove, since once again it doesn't obey their own field definitions. The neutron is the larger particle, and it was the one that was seen to "decay" into the smaller proton and electron during beta decay. Since particles do not and cannot decay into higher energy levels (by the definition of decay), and since you cannot decay both uphill and downhill, this decay of a proton into a neutron was illogical from the start. We can see this by pulling apart their own reaction:

$H + H \rightarrow\ 2H + e^{+} + v_{e}$

Hard to believe they put that in print, and have for over 80 years. Am I the only one who ever studied it closely? In that reaction, the positron must have a negative mass! If we wish to conserve energy, mass, or anything else, that positron should be negative. But the positron *doesn't* have a negative mass in mainstream theory, and never has. It has the same mass as the electron. So mass is not conserved across that reaction. What they really need here is an electron hole, and I almost hate to suggest that, since they now have that beast in their cheat-bag. I fear to see that cheat added to the standard model next month.

What they actually do, if you press them, is wave their magic wand and incant an electron/positron pair from the vacuum. The electron then goes with the proton to create the neutron. And the positron is leftover, as you see. But again, that doesn't conserve energy or mass. They haven't borrowed from the vacuum for 10^{-30} seconds, like they do to cheat in other places. They have incanted permanent particles or mass *ex nihilo*, and the new mass and energy doesn't immediately return to the vacuum. Yes, they get rid of that positron by annihilating it, to get it out of their equations, but the mass of the electron is now part of the neutron, so that mass is permanent. They don't tell you this, but in the theory of proton-proton reaction, they have normal stars creating permanent mass out of the void in every act of fusion.

As if that weren't bad enough, they make it even worse by adding energy to the right side, like this:

$H + H \rightarrow\ 2H + e^{+} + v_{e} + 0.42$ MeV

Since energy has mass, they have just added more mass to the right side. But the right side was already *two* electrons heavier than the left side. The neutron in the 2H is an electron heavier than the proton it "decayed" from, and then we have the positron.

So [2H + e^{+}] is two electrons heavier than [H + H]. I will be told that the two Hydrogens have their electrons, but they don't. In stars, all the atoms are ionized, and this is only a Hydrogen nucleus, as they admit. I will be told that the positron then meets an electron, they annihilate, and photons carry off all their energy. But even if that happened, it wouldn't answer my question, or the problem here. If the positron is annihilated, you still have one electron too much mass on the right side. They can't mean the positron is meeting the electron *inside* the neutron, so that extra mass is still on the right side. What they have here is smaller particles decaying into larger particles. We are told we have a decay, but after the decay we magically have more mass than we started with. It is like saying that a golfball decayed into a tennisball plus a marble. It is upside down to all sense.

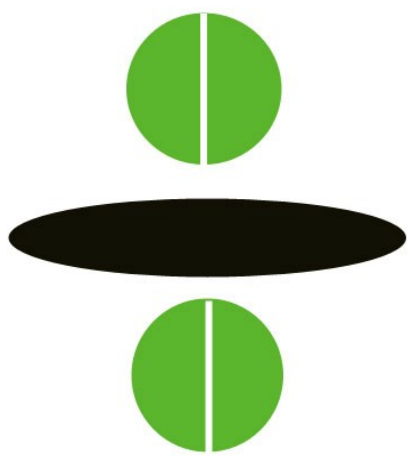
They also don't bother to tell you why, given two protons in the same field, one decays and one doesn't. What is the cause of decay here?

None of this ever made any sense, but we now *know* all this proton-proton reaction stuff was faked, since I have shown that even the normal beta decay we know about isn't really a decay. The neutron isn't decaying into a proton and electron. The neutron is being hit by a positron, reversing the outer spins of both. And although we do have anti-beta decay, it isn't anything like what is proposed above. In anti-beta decay, a proton is hit by an electron, again reversing both spins. Since both beta and anti-beta are actual hits in the field, we don't have the uphill-downhill problem and don't have to explain any energy deficits, since we don't have any. We don't have to borrow from the vacuum or push equations.

This means proton-proton reaction has to be dumped completely and replaced by new theory. I have provided that theory above, using charge channeling and charge potentials to show how and why baryons join at the ground level. Once you understand the basic mechanics of charge channeling, you don't need proton-proton reaction, fake decays, tunneling, annihilation, and the whole host of fudges in the mainstream.

Now let us look at Tritium. It is known that Tritium is radioactive, and I will be able to show you exactly why.

Tritium can be created by neutron capture by Deuterium, and in my diagrams this extra neutron goes opposite the first, like this:



In order to create the fused bond, the neutrons have to be turned like that, so that they are channeling charge down the nuclear axis. If they were turned the other way, they would not be channeling, and they could only rely on the ambient field to press them into that charge stream created by the central proton. That isn't enough charge strength to create a fused bond.

The problem with Tritium is that the two neutrons actually create too much charge channeling. As drawn here, you see we have two baryons channeling charge through one baryon. That can't work. It can't work even though the neutrons are channeling less than the proton. The neutron has a maximum channel strength of .685 that of the proton, which we get from its magnetic moment. Since it must have about that here, the charge strength of the two neutrons together would be 1.37, which is clearly over what the proton can channel. One or both of those neutrons therefore will be kicked out of the channel eventually. In an unbalanced field, the one on the weak end will go first. Since almost all fields are unbalanced (regarding charge and anticharge), Tritium will almost always decay back into

Deuterium.

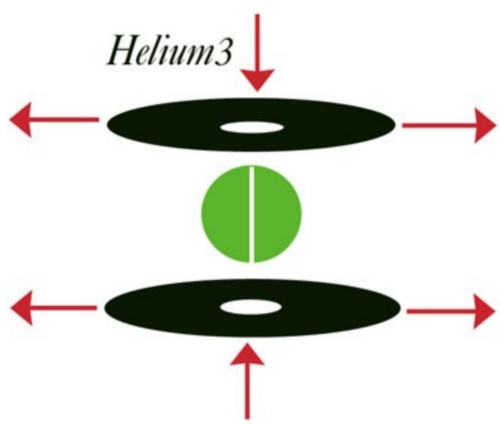
You will ask why the 2H captured the neutron to start with. Doesn't the proton "know" its own charge strength? The answer is that the second neutron will be drawn to that charge stream by potentials in the field, regardless of the stream's strength at the pole of the proton. It will then align to that charge stream and therefore to the other neutron. Only *after* the neutron has plugged in will the combined stream hit a value of 1.37, since until it does so, we can't add the streams. Until the plug-in is completed, some charge will dissipate laterally. It is like a hose that hasn't been screwed in all the way. You also have to remember that Tritium is created only in high-energy fields, like in stars or reactors. It isn't a molecule. So saying that the extra neutron is "captured" isn't really a good visualization. The neutron doesn't just float in there on a passive charge stream. It is blasted in there on a powerful stream, and only once it is in can the configuration "know" that too much charge is in that created channel.

We are told that Tritium can beta decay into Helium3 by this reaction:

3H → He3 + e- + v_e

But that process has the same problem as the one we looked at above. We don't have the mass conservation problem here, but we still have a decay caused by nothing. It is spontaneous, we are told. The neutron spontaneously decays into a proton and electron. By calling it spontaneous, they dodge the need to explain its cause, you see. I have shown the decay is not spontaneous, and isn't a decay. The Tritium gets hit by a positron, reversing its spin and the spin of the neutron. If you reverse the outer spin of a neutron, the four spins of the neutron then allow charge to channel to the baryon's equator, and the neutron begins emitting there. But a baryon that is emitting equatorially is what we call a proton. As for the electron, it is just the reversed positron. We don't see the incoming positron because the outgoing electron travels on its path, overwriting it.

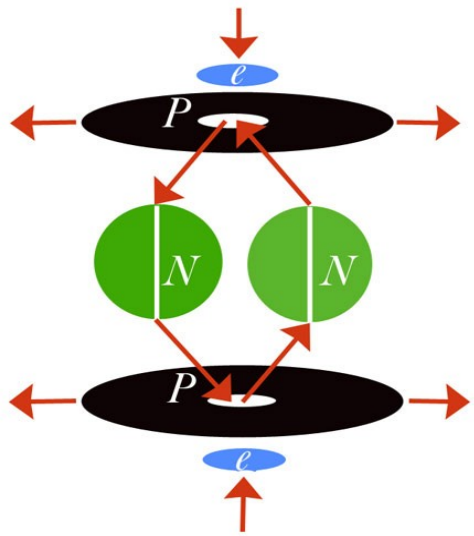
My diagrams also tell us why He3 decays back into Tritium when hit by a neutron, instead of becoming He4.



An incoming neutron will not be able to squeeze in between the lateral charge emitted by the protons. Although I draw those red arrows as discrete, it is understood that they disperse as they go out from the nucleus. The arrows are composed of many photons, and they spread out. Therefore the neutron will not be able to squeeze in that gap. It is simply too big. With perfect aim and high enough energy, we could force a neutron in there, but with that amount of velocity it would just crash into the neutron already there, blowing them both out. So it will have to come from top or bottom, fitting into one of those holes. Once plugged in, the charge stream into the other proton will be broken, and it will escape.

Tritium and Deuterium join in a similar fashion as two Deuteriums, fusing into He4. The Tritium then sheds that outer neutron, since the neutron is then over the limit for what the proton on that end can hold.

That brings up the question of why He4 is stable, according to my theory. If we return to this earlier diagram,



we find that each proton is being fed by two neutrons. Shouldn't that break my rule? I have said that the proton can't take more than 1 proton-unit of the charge stream, but that 2 neutrons give us 1.37. Why does that apply to Tritium but not the He4 here? Well, you can see that the configurations are completely different. With Tritium, the two neutrons are on opposite sides of the proton, feeding it charge from both directions. That isn't what we see here with He4. The neutrons are on the same side of each proton, and each neutron is channeling only half the charge field. One neutron is channeling the up charge, and the other is channeling the down charge (or anticharge). So each neutron is only channeling ½ its maximum, or about .34. So together they are channeling .68, and the protons here are safe.

As we wind this paper down, let us look at a claim of the mainstream concerning Tritium:

The neutrons in the tritium nucleus increase the attractive strong nuclear force when brought close enough to another atomic nucleus. As a result, tritium can more easily fuse with other light atoms, compared with the ability of ordinary hydrogen to do so.

We know that can't be right, since there is no strong force. So why does Tritium more easily fuse with other light atoms? We can see why straight from my diagram. The neutrons are channeling charge as well as the proton, so Tritium actually has a stronger charge channel. Surprisingly, Tritium bonds via its pole rather than its equator. What I mean is, with normal 1H, the proton bonds on its equator. I always plug the pointy end of the black disk into a charge hole, and that represents the proton's equator. That is where the charge is coming out, so that is what you plug into a charge hole, obviously. But with Tritium, that is inverted. Tritium could plug either way, equator or pole, but Tritium is special in that the through pole channel is actually stronger than the equatorial channel. So if we build larger elements with 3H instead of 1H, we are plugging the neutrons into the holes. The neutrons on the pole of 3H cause a through charge of 1.37, which is more than 1/3rd above the normal charge channel of 1H exiting on its equator. This makes 3H more magnetic than 1H as well, and makes it perfect for nuclear magnetic resonance (NMR). 3H has through charge going both directions, which spins up the charge just as we saw with Iron.

I will close this paper by pointing out that my diagrams very simply explain why a proton cannot accept three neutrons. There is no negative charge potential or hole to plug the third one into. So no fusion of Tetartium (4H) could occur. In some circumstances, another neutron could align in the through channels of Tritium, along the pole and beyond the other neutrons. But there is no way it could *fuse* there. At best, it could only create a sort of pseudo-molecular bond, much weaker than a fused bond. Therefore the strong field used to create it would also destroy it.

Since the mainstream has no diagrams, it cannot explain things like this. It does not ask itself these sorts of questions. Wikipedia tells you 4H lasts for only .1 zeptoseconds, but doesn't attempt to tell you why. I just did, and drew you a diagram to show it.