Pre-life using clay and iodine neutron memory

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Abstract

A clay material with iron is used in this theory, which was inspired by A. Cairns-Smith. In addition, iodine neutron spins are memories that can steer organelles and store information about successful incarnations before life had RNA. The iron can be magnetized by lightning. That can pull together more iron, over time. The advantage of iodine is for an easy way for an electron to enter the nucleus and pass through. Clay is made from crystals that grow. Successful layering that grows can be said to reproduce. Entropy will tend to ruin the pre-life, but by adding a memory primitive, pre-life can prevail over entropy for some lifetimes. An attempt is made to design clay with memory using a toolkit of twenty-one physical phenomena that give advantages over chaos. The design is called memoglobin.

Background of Cairns-Smith Theory Enhancement

Alexander Graham Cairns-Smith, organic chemist and molecular biologist at the University of Glasgow, lived from 1931 until 2016 [1]. I read his little book long ago: “Seven Clues to the Origins of Life”. Decades after that, during May 25, 2017, I discovered a plausible theory for the shape of the iron-57 nucleus [2], paper #1 in the reference. Now, in 2025, both theories are combined in hopes of presenting more details about pre-biotic chemistry. The Cairns-Smith theory featured sub-nanometer clay crystal atoms that reproduce shapes. My improvement provides smaller details of theoretical **“easy ways”** for atoms to self-assemble into thyroid hormones and DNA. Memory is suspected to be implicated. Coauthors are invited to a future.

Growth is a feature of life. Entropy can defeat growth of a crystal, if there is no additional “easy way” to remember a successful clay crystal. The iodine molecules for thyroid hormone go back in the fossil record to cyanobacteria [3]. My theory here is about neutron memory in iodine being available far before RNA existed. Maybe selenium is used instead of iodine. DNA memory of successful ancestors is not needed to remember how to survive, in a Darwinian sense. Iodine can steer and store quantum information using flux that enters nuclei. Life began copying a memory primitive. Memoglobin guides reproduction of memoglobin. After a long time, evolution of successful memories was wide-spread and mutations occurred so organelles and membranes were given their opportunities. A membrane could surround a memoglobin molecule and a bigger membrane could contain thousands of the molecules.

Flux is the wavefunction that connects an electron to a proton. See papers #4 and 5 in reference [2]. Photons are pieces of wavefunctions, 2D out of 3D in the cosmology of the solid state. Photon experiments can compare cavity photons of microwaves with photons from a single atom. Ground penetrating radar is compared to gamma ray penetration scale.

Arch and scaffolding analogy

AG Cairns-Smith book, Seven Clues to the Origins of Life.

Layered crystal

AG Cairns-Smith book, Seven Clues to the Origins of Life. Layered crystal grows and keeps the same layers of materials [4]. Hierarchies occur where a clay type has flat atomic layers that differ and millimeter layers of sedimentary clay deposits that extend in two dimensions.

Feeding things to clay and excreting

Electrochemical flow reactors of a modern laboratory have similarities to subterranean formations of walls, vacancies, and floors. Natural tubes and beakers of clay use gravity so liquids flow easily. Multiple feed paths of liquids descending through clay layers have time to vary the mixtures [5]. The scale goes from big to small layers and flat crystals.

Iodine was used in ancient single-celled life forms [3]. Thyroid hormones (TH) are used in more kingdoms than just the animal kingdom to hold iodine. I-127 is an antioxidant that helps membranes. Quote from Susan J. Crockford, “THs are known to influence virtually all biological systems from the point of conception onward, including differentiation of embryonic and adult brain stem cells; regulation of early embryonic cell migration, differentiation, maturation; “and 10 more categories of TH uses in common molecular life functions. “In fact, it is entirely possible that iodine may be the key to explaining the origin of life on Earth, as suggested by Gilmour et al. (1999) “.

Iodine is used in a molecule called triiodothyronine. The three iodine atoms in that thyroid hormone are bonded to carbon atoms. Triiodothyronine has about 28 atoms, so it is relatively small and simple. Quantum computer experiments have used diamonds with tin atoms to test nuclear spins of carbon. Tin has a nuclear shape similar to iodine. Hemoglobin has atoms that add up a to molecular size of 64,000 Daltons. A Dalton has a mass like a proton.

Susan J. Crockford, “Iodinated tyrosines probably became important about this time, in part, because they were good catalysts, reacted readily with others to form new complex molecules, and moved easily through permeable membranes [3] “.

Pre-biotic times featured iodine memory to steer reproduction of successful clay zones. Steering to the right will make circles and spirals for mutation opportunities. Memoglobin is proposed to steer events directly, without a symbolic qubit state. Flux passes through I-127 and the flux emerges at an angle, from the nucleus. The electron continues from there, to bond at an angle that is set by neutron memory. Eventually, oxygen increased on Earth, along with increased iodine in the air [3].

Details of **The Easy Way** for Pre-life

Entropy was sometimes defeated by life. Here is a list to preview the natural physics and chemistry that theoretically made a Cairns-Smith scaffolding for an arch of self-supporting life. The scaffolding was eaten after it was so very successful at achieving the temporary survival of the fittest. The following list of ways will be used as a toolkit to design a memory primitive with iodine neutron memories that can store a qubit and steer a wavefunction.

List of Ways

1. **Electrons penetrate the nucleus** of iodine more easily than I expected
2. Each “free electron” is always paired with one proton: dissent with old sci [2]
3. **Proton rings** allow electrons to approach the center
4. Lightning strikes clay that has iron in the clay crystals (ferrous saponite)
5. Iron can be magnetized in clay, starting a membrane position like a cell
6. Potassium gamma rays, NaI:Tl scintillator, sodium iodide
7. Cosmic ray historic variation during epochs
8. Uranium radiating-zone fossils shape membranes
9. **Flux convergence zone** in nuclear cube: neutrons touch electron spins [2]
10. Conservation of bends can make **adiabatic zone in 3x3x3 cube** of nucleons [2]
11. Tunneling nomenclature with finer details using flat laminated wave functions
12. Catalysis using finer explanations with flat sub-universe theory
13. Crystal domains affected by neutron spin
14. Body-temperature memory in clay, attempted engineering design
15. **Steering and storing**: a primitive nuclear easy-way in iodine
16. Human memory has the same iodine neutron memory as pre-life memory
17. UV photo excitation helps filter purity of molecular products, (M. S. de Vries)
18. Jack Szostak prebiotic nucleotides might use iodine, (Harvard)

19. Flat flux sneaks through the other lamina, cosmology of solid state
20. Rapid temperature changes
21. Differential drive/sense shape

Figure 1: neutron spin touches two flux spins from two electron-proton pairs

The spin of a neutron is shown in Fig. 1, as it touches two flux spins in a nuclear cubic core. The black neutron has a clockwise spin. Protons are gray. That sketch is from paper #14 [2]. I consider protons, at this tiny scale, to be radiating lines of dimensions, not spinning in this local coordinate system. At the larger, atomic scale, the proton spin is linked to one electron spin by a line of flux. A green line of flux touches the neutron in the tight quarters inside a nucleus. It has a CCW spin (counter clock-wise), which slides over the neutron spin if it is appropriately directed, as shown. A dark green line of flux touches the green flux with the correct spin. An incorrect spin direction of one line would have started bonding instead of having this durable, sliding flux. The interconnectedness of the world and the orderliness are emphasized in my theory of enough. General algebra is not appropriate for beginning to describe matter. Geometry should be evaluated, first. Then algebra can abbreviate the writings.

If two lines of flux touch a neutron as in Fig. 1, writing can occur onto the neutron spin. If one line of flux touches the neutron, without the second line, reading will occur onto the flux. That qubit is then communicated out of the nucleus and into the outer memoglobin protein. That is a new proposed theory (Oct. 19, 2025).

Hyperfine and Super-hyperfine Interaction

The interactions between nuclear spins and electron wavefunctions have spectra that are categorized as coarse, fine, hyperfine, and super-hyperfine [6]. Life can emerge the easy way or the hard way. Chemical reactions are the hard way. Nuclear spins are the easy way, in this proposal. Flux confluence in iodine nuclear cores make several lines of flux touch. Also, neutron spins touch electron flux intimately in the cubic core lattice. The neutron spins are like the "nuclear spin" terminology.

In the list of Ways, number one states: "Electrons penetrate the nucleus of iodine more easily than I expected". I propose this idea without knowing if it is true, but it might be true. This is a new frontier of physics. It is biomimicry.

Consider an iron atom that is magnetized. An electron nearby can move in a direction that enters the magnetic vortex. The electron passes into the convergence zone in the cube [80]. That can also travel to another atom. The electron can share flux spins with two nuclei simultaneously. That is seen in super-hyperfine spectrum offsets. That electron is in communications with its atomic nucleus, and that electron is in communications with the nuclear spin of an adjacent atom.

A ribozyme molecule can surround an iodine atom. The ribozyme sends electrons into the I-127 from several directions. That makes lines of flux come in contact with neutron spins and other electron spins.

Sensitive laboratory instruments can detect the nuclear spin and electron spin, so how can a molecule detect a neutron spin? No chemical reaction occurs for iodine. The magnitude of a microwave photon energy is compared to the bond energy of a support molecule (M).

"Electrons come to the nucleus"

Reference [90] page 378

Fermi Contact Interaction

Only the s-orbital electrons can touch the nuclear spin [90].

The wavefunction of an unpaired electron at the nucleus is published as an energy-related formula. "Unpaired is described in [95]. A free radical

In an atom, an electron has a **hyperfine** interaction with the nuclear spin of that atom.

In several atoms, one electron has **super-hyperfine** interactions with the nuclear spins in several nearby atoms.

Crystal domains affected by neutron spin. Scale up to organelles being affected by neutron spins. Theory of Enough.

NMR and NM Statics

Resonance in nuclear tests use a magnetic flux but static nuclear interactions with electrons also occur in biology. A driven electron that moves once can penetrate a nucleus.

Ways

Discussion of Ways

The List of **Easy Ways** was given in the Details section, numbered 1 to 14.

1 **Electrons penetrate the nucleus** of iodine more easily than I expected. S-orbitals were already taught to be for electrons to come to the nucleus. Now, nuclear shapes are known, so AC and DC proton rings are helpful. Imagine that iodine can use an AC input from another molecule that drives an electron to read a memory, or write.

2 **Each "free electron" is always paired** with one proton. That is dissent from old science [2] paper 4. In this way, memory can be reported by electrons interacting with one proton. Or two nuclei can communicate through one electron with the super-hyperfine interaction. Flux persists in nuclei after the electron departs. Quantum computer attempts at 1 Kelvin show promise with similar measurements and different nomenclature. The flux is a flat shape and fluxes can stack up, as many laminae with no thickness. Flux can slide by another flux or they can bond two electrons, depending on polarity.

3 **Proton rings allow electrons** to approach the center. Old science did not know about rings of protons being common. Electrons go through the center of a nucleus, pass through and exit the other side of the nucleus. Theory of Enough. Selenium in an amino acid has 3x3x3 cube of nucleons. There is less Se than Au in a person [58]. Selenocysteine.

4 **Lightning strikes** clay that has iron in the clay crystals. Pre-life learned what works in the school of hard knocks. A billion volts in a billion zaps can sometimes start a good thing. Maybe a memory latch using neutron spins resulted and it fit into the local clay

layers. The memory qubits could steer nutrients and store a history for success. Steering occurs where the core cube in I-127 has neutron spins that direct flux to follow a path to exit the nucleus.

5 **Iron can be magnetized** in clay. A gradient of nutrients can result. The chemical gradient can start a cell wall shape. Two overlapping spherical boundaries can make situations that can have subtle process differences. A cell can form with iron on the interior of the membrane and a vacancy in the middle. There exists a biological cell like that [ref].

6 **Potassium gamma rays** are commonplace. An iodine atom with a driver molecule can use one photon to assemble a memory latch organelle.

7 **Cosmic ray historic variation** during epochs can start a pre-Precambrian or clay catalyst anomaly.

8 **Uranium radiating-zone fossils**. A gradient of nutrients can result. Two gradients in a zone can make a more complicated junction for a future.

9 **Convergence zone** in iron shows the paradigm of the flux confluence zone [45]. Wave functions can meet in the core of a nucleus. Those are the durable flux that can lay flat against another flux or against a neutron spin.

10 **Conservation of flux bends** can make adiabatic zone in 3x3x3 cube of nucleons [49]. The cubic lattice enables three orthogonal sins to coexist so they can be communicated to electrons.

11 **Tunneling** nomenclature with finer details are needed. Tail end of wavefunction overlaps with a nearby wavefunction. The two space-like dimensions of my cosmology of the solid state can slip between the cracks of the Coulomb repulsion, near a nucleus.

12 **Catalysis** explanation is needed using finer explanations [51]. Proton lines make hook shapes. The exact process can now be proposed for platinum.

13 **Crystal domains** may be affected by neutron spins. This is communication from the nuclear core to electrons in crystals. The scale of this phenomenon can be larger than magnetic domains. The phase transition is a general name for this.

14 **Body-temperature memory in clay** is possible. An engineering design is attempted. Human-level insights can jump to the answers at the back of the book. Flat flux theory can use “video” frequency pulse timing from a molecule to design a primitive for iodine neutron memory.

The easy ways in that list form a toolkit, from which, a design engineer can invent a memory latch for pre-life. Other scientists can try alternative types of warm neutron-spin detection. Maybe thyroglobulin is involved in iodine delivery to nerves.

Layers of clay eventually mass produce memoglobin because it can self-replicate. The memoglobin remembers how to make another memoglobin. A flood of primitive memories populates a clay bank.

15 **Steering and storing**: a primitive nuclear easy-way in iodine. An adiabatic zone is in the cube at the core of the stacked protons and neutrons. My theory is names The Static Nucleus Theory of the Face-Armored Cubic Lattice [122]. Storing is only in the neutrons for the primitive invention. No latch molecule is in the primitive, rather, the nerve path away from the neutron differential sensor goes through many molecules for immediate execution. That is not only symbolic information. That nerve path eventually has the ability to latch the memory state from the neutron. That could be a chemical reaction, in contrast to **the neutron state differential sensing amplifier molecule.** Common-mode noise rejection principles are emphasized. Maybe thermal noise is eliminated for operation above 300 Kelvin by a common-mode rejection of the “state-noise”. I use that phrase because the noise theory is only partially defined or known. Molecules have advantages over laboratories since signal compatibility is natural. A quantum signal of unlimited bandwidth is compared to a quasi-inverse signal from a nuclear core. There may be quantum signal qualities in neurons that have never been accurately described with algebra. Evolutionary success inspired people to expect compatible bio-signals exist.

Hysteresis of iron is from neutron training. History memory in iodine is from neutron training. Memory metal Nitinol also uses neutron training, in my theory [2] paper #14. (This is paper 17).

16 **Human memories** have the same iodine neutron memory as pre-life memories. This theory is my choice, to employ durable physical layers of a hierarchical, orderly universe. Experiments today on animal thyroid hormones could reveal the primitive memory molecules that empowered life to emerge without a code plan. Memory can hold an archaic code of pre-life, without RNA. The trend is for life to remember the good food.

The same quantum physics that easily holds people’s memories, is also the physics that easily helped life to begin and reproduce memories. The adiabatic zone of flux convergence is so small that it was not seen clearly inside an iodine nucleus. The memory can use AC signaling, like an old video with scanning bursts of frequencies and precision synchronization. Differential electron penetration sequences are expected from both sides of an I-127 nucleus.

17 **UV photo excitation helps filter purity** of molecular products, (M. S. de Vries). The UV can come from atoms that absorbed a gamma ray from potassium. The UV can begin with uranium decay or a cosmic ray. Deep sea thermal vents can use UV for making organic molecules. Sunlight is not required.

18 **Jack Szostak prebiotic** nucleotides might use iodine, (Harvard)

19 **Flat flux sneaks through** the other lamina, cosmology of solid state. Electron-vortex can be made by a molecule to fit in the local coordinate system.

20 **Rapid temperature changes.** Other people mentioned this helpful event for the formation of desirable compounds.

21 Differential drive/sense shape. A signal from a first molecule sends both ways: through an adiabatic zone and not through it. A second molecule receives both versions and the difference is used to amplify the magnitude of certainty about the quantum state.

Comparisons of neutron functions are shown in Fig. 2 for a magnet and for an animal memory. Iron has hysteresis that changes in magnitude, depending on the neutron training sequence for a South-North demagnetization and reversal. Iodine has historic memory that changes in magnitude, depending on the neutron training for qubit reversal or redirection. The I-127 adiabatic zone is available to generate an inverse wavefunction property. That is abstract now, but it must be given a verbose paragraph about an adiabatic zone.

The red blood cell has no nucleus and no mitochondria. That is a reason to use biomimicry of hemoglobin to start an architecture of a proposed memoglobin compound.

Susan J. Crockford: “I propose that during the evolution of early cells, the ease with which environmental iodine reacts with water and simple biological compounds—its active redox chemistry—explains why this relatively rare inorganic element, over evolutionary time, became a cornerstone of cell–cell signaling and a critical component of our atmosphere. “[3]

Memoglobin

The design attempt in Fig. 3 shows iodine with a simplified local coordinate system, where an electron is sent through the I-127 nucleus from a support molecule. This is a sequential process, like in the iron nucleus. Three steps are illustrated from about a hundred possible steps. The information signal is produced as an electron passes by a neutron and that flux is in contact with the neutron. That is in an adiabatic zone. The confluence of several fluxes is harmonious. The neutron spin is compatible or not, with the flux spin. That difference is a large signal. The video bursts of a high frequency from a support molecule are received by a molecule. A differential comparison of that signal, with a reference signal, results in a qubit. That is a read operation of theoretical neutron memory technology. Animal nerve memory also reads quickly from neutrons to fight or fly from a motion.

Selenium is 4 times rarer than iodine in the human body. Iron is 300 times more common than iodine. Hemoglobin has a differential molecular shape and function with two alpha and two beta sections.

Writing iodine neutrons also involves video bursts of a high frequency from support molecule m3. In the convergence zone, in the cube, the flux from the electron from m3 will conserve bends. That is how the adiabatic zone can be employed for memory metal or for my memory. A slow forcing of neutron spins can begin writing after two electrons have passed by.

In short, the adiabatic zone contains part of a line of flux. The other part of the flux is outside of that zone. That line can conserve bends while it is inserted in the nucleus. If the neutrons were already trained, the flux is inserted to touch the neutron-spin. The touching flux changes its bends to be compatible with that spin. Changing to more bends inside the cube causes external bends to be fewer. Memory metal and magnetic refrigerators chare the physics of memoglobin. In Nitinol, a changing bend in the wavefunctions makes the nickel crystal lattice change phase. In magnetic gadolinium refrigerators, the heat-treated alloy has hot internal neutron spins, so the external flux segment gets relatively cold. In a proposed memoglobin invention, the differential quantum signal acts with an original flux and a second flux that has penetrated and iodine nucleus and emerged. That second signal has a quantum inverse property, relative to the first molecular flux. The two signals can be sent to one atom or compound so a result is untainted by common-mode noise in a frequency-domain or some different quantum spectrum domain of noise. This is an abstract idea that needs a chemistry team for future co-authorships.

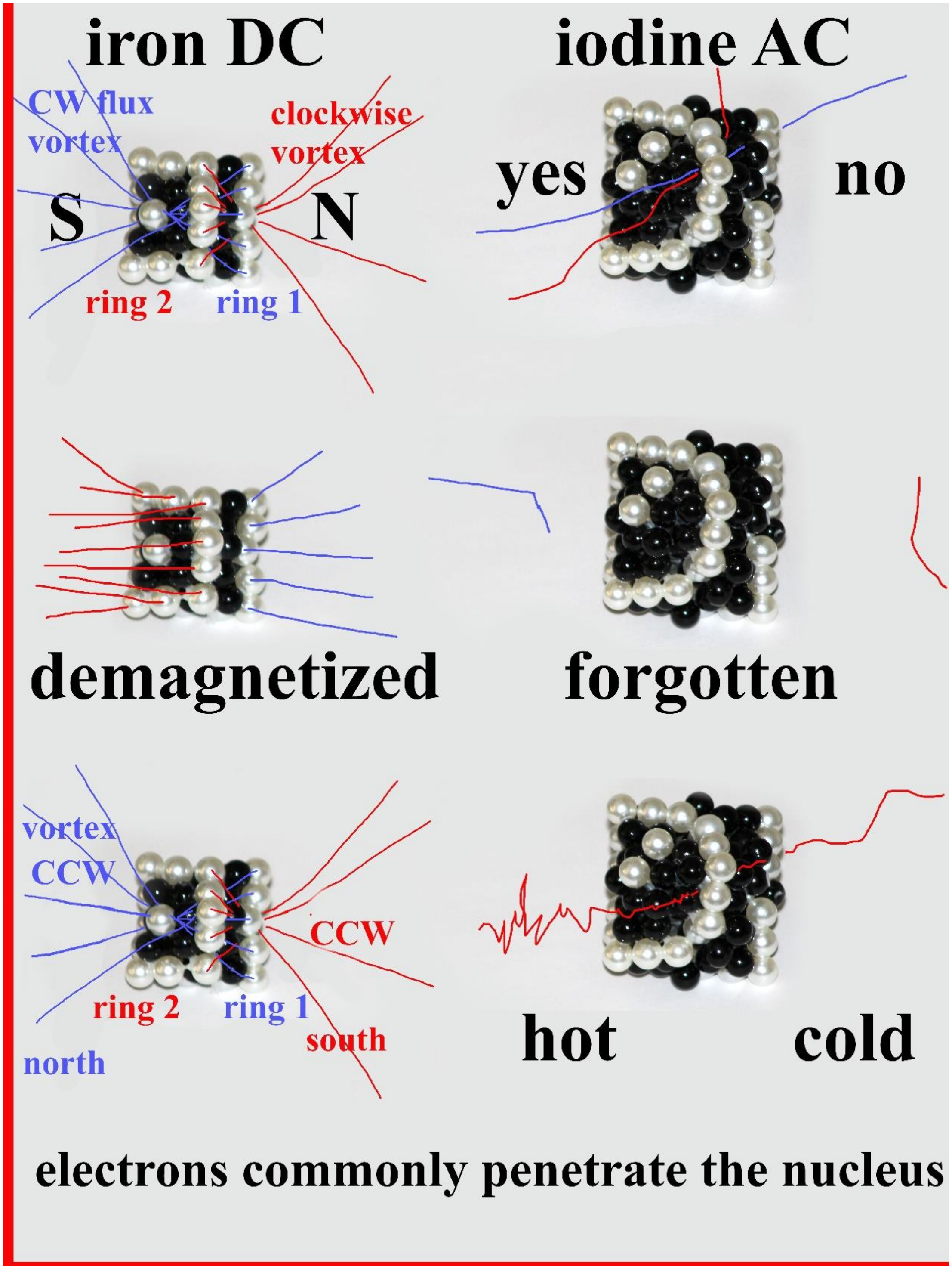

Figure 2: hysteresis and history in neutron spins, black neutrons, white protons, electrons are not labeled, lines of flux sketched going from a proton to an electron

In Fig. 2 of this paper #17, no chemical reaction is needed. External compounds can have chemical reactions to use an apparatus or body, but not iron in a bar magnet. Iodine is like iron in that regard. Memory is frictionless in animals. This figure is like in papers 16, 15 and 14 [2]. Fig. 2 is intended to tell the reader abstractly that iron and iodine can use DC and AC signaling to change hysteresis in iron (paper 10) and history in iodine. The stored history can be quantum values like up/down, yes/no, neutron-guided/better-neutron-guided, and hot/cold flux waveforms.

The memory is using a differential read path. Writing the iodine qubit also is a differential situation called the “electron flux spin handshake”. It was described in paper #10 for iron [2]. Hysteresis in a magnet is like history. Iron remembers a driving vortex. Iodine remembers a state of two adjacent flux lines. Iron remembers compatible states of twenty-four adjacent flux lines. Compatible fluxes slide over each other. A mis-matched flux bonds to an adjacent flux. In the nuclear core, bonding always fails, and the handshake is tried again. Writing is slow, reading is fast. It is easy to improvise a brain place to write. Reading is more detailed, as a nerve path is followed. The neutron memory leads to a nerve path that uses the information immediately. No latch is needed for the neutron memory primitive because it can be latched far away in a nerve path. The latches store the information without needing the neutrons being nearby.

Invention attempt for memoglobin

Hemoglobin (Hgb) is the starting point for this invention of October 15, 2025. Hgb protein has a quaternary structure. Two alpha molecular parts are in symmetrical positions and this will allow differential sensing for iodine neutron memory of the invention. This is biomimicry. Two beta molecular parts are in symmetrical positions and this will allow differential sensing. Let alpha be for writing and beta be for a reading function. See Fig. 3 for my invention of today. Hemoglobin carries oxygen O_2 molecules away from the lungs and it carries some of the CO_2 away from biological tissues. That is like writing and reading a cell in a muscle.

The memory is written without a chemical reaction in a zone of the memoglobin. Certainly, the iodine has no new chemical reaction to write or read a quantum value, in theory.

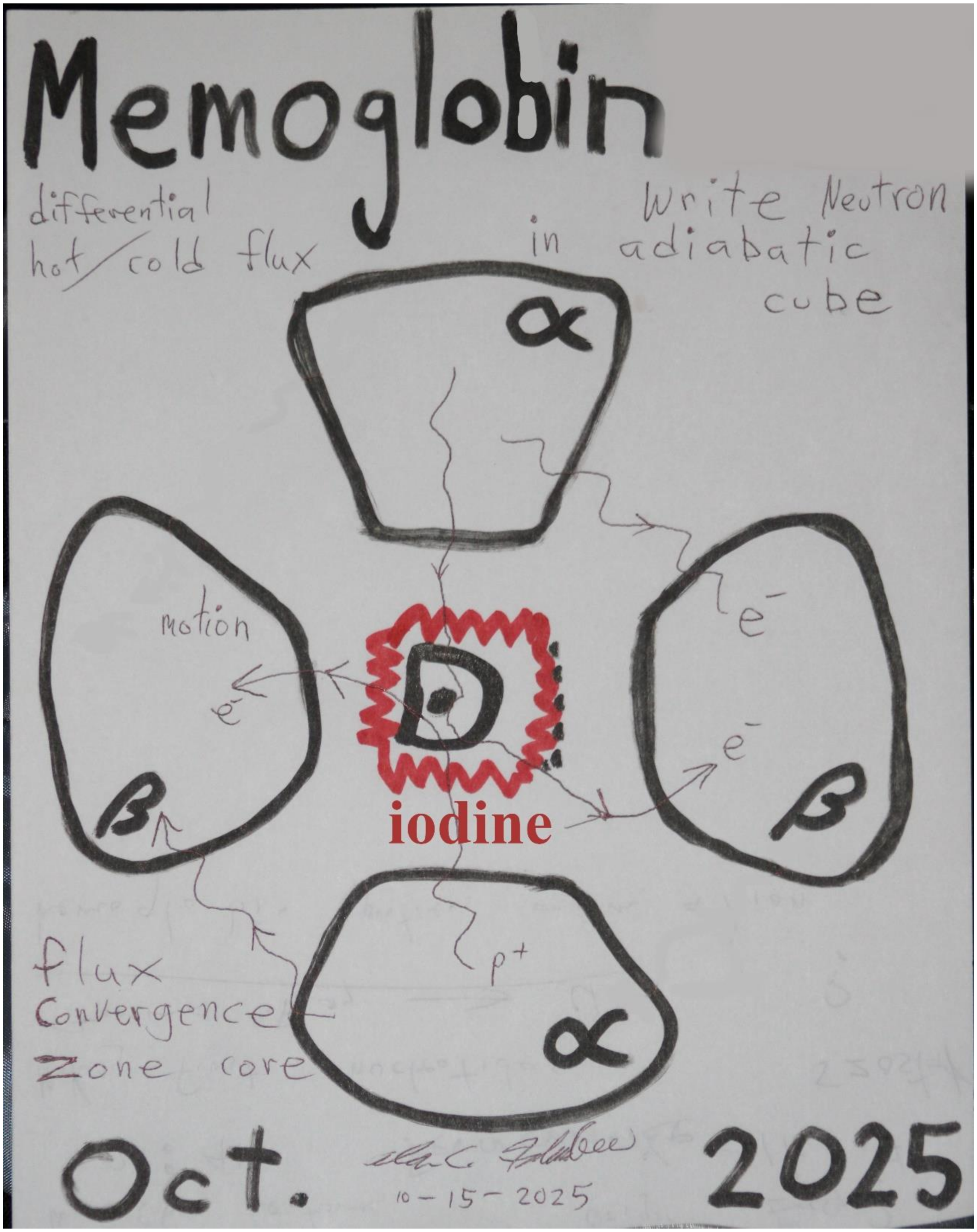

Figure 3: details of a memory invention

The explanation of Fig. 3 follows. The invention can be put in the public domain after one year or it can be assigned to a team. That is not decided today 10/15/2025. Imagine that memoglobin is smaller than hemoglobin. There are 240 million hemoglobin proteins in a red blood cell. So, a nerve cell could also have millions of memoglobin molecules to store memories with context and perspectives. A device the size of a silicon memory chip could have a storage limit of one exabyte.

Fig. 3 shows a proposed invention called memoglobin. It is like hemoglobin but instead of iron atoms in four places it has iodine in the center. The hemoglobin shape allows a differential shape where form fits function. Two alpha molecules and two beta parts actively send and receive electrons. The motion of electrons is sketched as wavy lines. The AC driving events push the electron into the proton ring center and then pull the electron into the ring center and into the cubic core of iodine. Following the electron (e-) is a line of flux connected to a proton.

The alpha part sends two electrons to the beta: one through the iodine and one electron directly to the beta. The two quantum signals in the two flux lines are carrying frequency domain information, so the result of combining two signals can become valid at an unexpected time. That result signal in the beta is applied to an external function immediately.

A red blood cell contains no DNA or RNA. Hemoglobin is a relatively primitive molecule in biology. Memoglobin is intended to be so primitive that it is easier to make, with simpler chemicals, than hemoglobin.

Claims

Claim 1:

It is claimed that the idea is original for the existence of an adiabatic zone in a 3x3x3 cubic lattice of protons and neutrons and that this can be connected to influence one of two **differential quantum signals**.

Note 1: Claim 1 is expected to improve quietude and coherence in a molecular differential amplifier named memoglobin. The two quantum signals are impedance matched in bonds and fluxes, something that lasers and antennas cannot duplicate for communicating with single atoms.

Notes 1b: claim 1 uses the conservation of bends. Memoglobin is like Nitinol memory metal. Same physics. A part of a line of flux can be in a nucleus while part is outside. The flux (wave function) has sharp bends at high temperature. At low temperature the flux is smoother. An adiabatic zone flux segment will not have a change in the bends even if the exterior flux section is heated up to a high temperature. Neutrons will be trained at a certain temperature. When all flux is withdrawn from the nucleus, the neutrons retain their training. When new flux is inserted, it will take the shape that the neutrons require. The part of the flux outside will bend the metal to its former shape. A phase change can occur. In my memory metal theory, a cubic crystal changes to achieve a tilted lattice shape.

Note 2: Iodine-127 is the heaviest element in biology. Other heavy elements have unusual properties that light elements do not give (neodymium magnet, erbium amplifier of laser glass fiber, bismuth Peltier effect, nickel memory metal, gadolinium refrigerator) They might use the same neutron training physics for various phenomena like magnetic coercivity, crystal lattice phase change to FCC, and adiabatic zones.

Claim 2:

The idea is claimed which provides that quantum signals are communicated using a line of flux from **one electron to one proton** and back again. This is a direct interaction which is distinct from induction with other e^- p^+ pairs.

Claim 3:

The idea that there are two rings of protons in certain chemical elements gives an advantage for understanding and planning for electrons to **commonly penetrate the nucleus** and depart the other side.

Claim 4:

The idea that, after two electrons have passed through a nucleus, the two resulting lines of flux can touch together **in the core of the nucleus** while they also contact a neutron spin, resulting in the neutron spin controlling the flux spins or the flux spins controlling the neutron spin.

Note 4: the primitive memory is held in a neutron spin. It can continue holding data for years, for neutrons in an adiabatic zone. When read, the information is executed immediately. No chemical-reaction happens for the iodine for writing a qubit or reading a qubit. Memoglobin makes other memoglobin molecules. They will flood the clay organelle using a perspective direction memory to reproduce without using symbolic interpretation. The origin of life comes from this idea, and modern human memory comes from the same physics. The nerve path in a brain follows the iodine perspective direction memory. An electron is pushed into an atom of I-127. The flux follows the electron, as a durable conveyor belt lamination. The flux is the path for a nerve cell to use to route the executive path to one of several exit ports away from this neuron. For example, a neuron can have twenty exit places and a signal can enter the neuron from several directions. Iodine atoms in several memoglobin molecules are already trained to force the path to go in a certain memorized perspective direction. The executive's goal is then accomplished as the signal goes to other neurons. Steering and storing memory qubits are in a room-temperature, prebiotic, heavy-element nucleus that drives one input to a quantum differential amplifier molecule. The data takes effect immediately in primitive molecules. It is not symbolic data, yet.

Claim 5:

Writing a qubit in memoglobin is done using two electron-proton flux lines that touch each other and they touch an iodine neutron. The three compatible spins are as in Fig. 1, which is called a “sliding” spin orientation. An incompatible spin would start a bond between two flux lines. The two electron-flux spins are strong enough to drive the neutron spin to a different orientation. Reading a nuclear qubit is done using one flux line that touches a neutron spin. This primitive memory has **the neutron spin driving the flux** to change spin orientation. (In memory metal Nitinol, this changes the crystal lattice type.) This is **direct memory execution**, with no latching logic. The iodine atom does not have a chemical reaction when writing a qubit or reading a qubit.

Note 5: claim 5 means that a line of flux is from an electron to a proton, so both particles will be influenced by the neutron spin. This generalized influence can change a spin of an electron, as the primary goal of this invention. No chemical reaction occurs in the iodine when writing and reading are done. Non-sliding spins start to bond. A chemical bond fails to be successful in the small confines of the cube in the center of the nucleus. Then, the electron is expelled from the nucleus and it can “try again” to slide through the nucleus. Microwave frequencies of trying again can eventually succeed in getting the best spin to slip into an exclusive zone. Tunneling and catalysis may use this path.

Claim 6:

This is a less-primitive version of the read function in claim 5. Reading a nuclear qubit is done using one flux line that touches a neutron spin. This less-primitive memory has the neutron spin not forcing the flux to change spin orientation, and a **testing of the neutron spin** is done with a spin-handshake [2], as in paper 10 of the reference. If the flux spin was in the bonding orientation, the electron would be expelled from the nucleus and it can try again with another spin orientation to handshake with the neutron spin. A successful handshake implies the value of the neutron spin, without changing any spin during neutron contact. An unsuccessful handshake also implies the value of the neutron spin. The memoglobin atoms interprets the spin value.

Notes on theoretical invention claims

Conservation of bends

Consider the possibility that one wave function conserves its “number of bends” during a time period. When it is inserted in a nucleus, the neutrons and protons change the bends in the wavefunction. The cubic lattice zone is most important. If the neutron spins force the flux to be shaped hotter, then the flux that is outside of the nucleus will be shaped colder. This could be an inverse operation for a quantum signal. A differential amplification of two quantum signals could be attempted.

The “number of bends” is a name for a generalized quantum value that can include the directions of bends and flux local spin directions. Other quantum properties can be added to the proposed conserved item. In particular, the cube is proposed to be an adiabatic zone, where a 3x3x3 stacking of neutrons and protons in the core of the nucleus has a cubic lattice. The orthogonal spin components are more orderly than in the pyramidal stacks in nuclei, so the cube is my focus for explaining a new conservation principle. Memoglobin can store a directional truth that is immediately executable. The direction change of flux in the nucleus is the Darwinian success record that allows reproduction for several lifetimes.

Conclusion

The clay ideas from Cairns-Smith are added to an iodine memory primitive to begin life. I predict that memoglobin will be found in a lab test of modern nerve cells. The molecule will have 4 lobes around an iodine atom. Alpha and beta lobes are predicted for the memoglobin molecule. Keep in mind that modern iodine memory theoretically has the same physics as pre-life iodine memory. This was needed before DNA memory could succeed.

Although a nerve cell can have millions of iodine atoms, I expect that a thousand memoglobin molecules get frozen in place for the memory function. Those iodine molecules can hold a main item plus context bits and perspective steering. The nerve paths can be directed by the neutron spin memories that direct some flux.

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