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The more sinister directions of
Carbon Nanotubes
(as weapons of war)

by
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Part 1: The more sinister directions of Carbon Nanotubes
(as weapons of war)

With the possibilities of fullerenes being able to act as a super anti-oxidant (radiation sickness), and a space elevator, it also opens other door to the possibility of weapon of war. Here is where my latest Internet research has led. I begin with some definitions in the physics involved.

The Neutron Bomb - A neutron bomb (Enhanced Radiation Weapon) is a low yield fission-fusion thermonuclear weapon (hydrogen bomb) in which the burst of neutrons generated by a fusion reaction is intentionally allowed to escape the weapon, rather than being absorbed by its other components.

The weapon's radiation case, usually made from relatively thick uranium, lead or steel in a standard bomb, are instead made of as thin a material as possible to facilitate the greatest escape of fusion produced neutrons.

Figure 1 - Tricks from a Neutron Bomb

Compared to a pure fission bomb with an identical explosive yield, a neutron bomb would emit about ten time the amount of neutron radiation. Enhanced radiation weapons also fall into this same yield range and simply enhance the intensity and range of the neutron dose for a given yield.

Pure Fusion Weapon - A pure fusion weapon is a hypothetical hydrogen bomb design that does not need a fission "primary" explosive to ignite the fusion of deuterium and tritium, two heavy isotopes of hydrogen.

Such a weapon would require no fissile material and would therefore be much easier to build in secret than existing weapons. The necessity of separating high-quality fissile material requires a substantial industrial investment (making plutonium), and blocking the sale and transfer of the needed machinery has been the primary mechanism to control nuclear proliferation to date.

For many years, nuclear weapon designers have researched whether it is possible to create high enough temperatures and pressures inside a confined space to fuse together deuterium and tritium for the purposes of developing such a weapon.

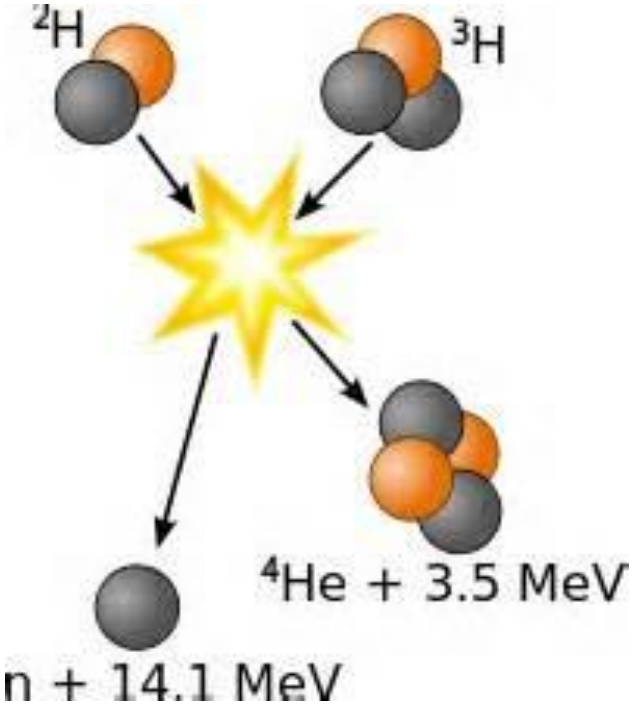

Figure 2 - Neutron Bomb reaction using Tritium

Pure fusion weapons offer the possibility of generating very small nuclear yields and the advantage of reduced collateral damage stemming from fallout because these weapons would not create the highly radioactive byproducts associated with fission-type weapons.

Nano- Fusion Reaction - The most difficult aspect of hydrogen fusion is overcoming the electrostatic forces that cause the hydrogen nuclei to repel each other. So a question is asked: Would it be possible to place one of the nuclei inside some conducting sphere like a Buckminsterfullerene so that the fullerene acts as a Faraday cage?

The fullerene would have an induced negative charge on the inner surface, and an induced positive charge on the outer surface. When the second nucleus is brought nearby, the positive charge on the outer surface will accumulate on the side of the cage further away, and some negative charge would accumulate on the side closer to the outside positive charge.

Would this setup effectively weaken the strength of the electric field that either one of the nuclei encounters? You don't even need to construct a shell. Drop an electron on orbit with a proton, and you get a hydrogen atom. That electron shell already neutralizes the proton's charge. That is why you can stick two hydrogen atoms together.

The problem is the size difference. Protons are on the order of femtometer. Hydrogen atom is on the order of an angstrom. That's 10,000 times too big. And the reason for that is electron's mass. They are just too light. What you need is a particle with similar properties, but significantly heavier. And we now have one.

The trouble is, a muon has a very short half-life, and are difficult to produce in high quantities without high energy losses. If we could find a way to produce a muon at near 100% efficiency, we could easily have cold fusion.

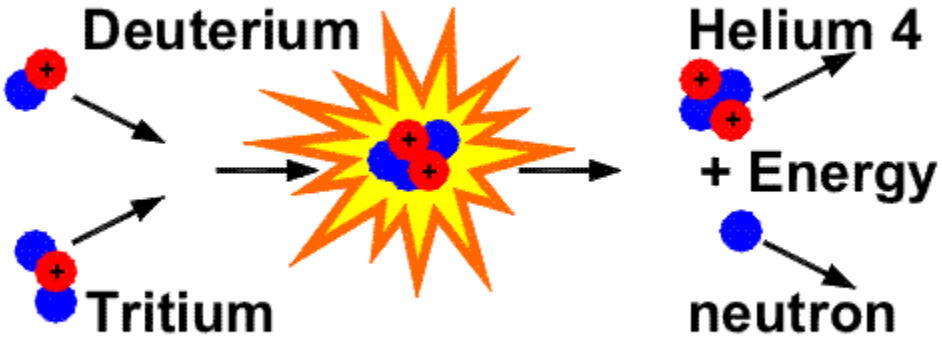

Figure 3 - Neutron Bomb reaction

These weapons would be lethal not only because of their explosive force, which could be large compared to bombs based on chemical explosives, but also because of the neutrons they generate. The neutrons may cause substantially more casualties than the explosive blast, as in a neutron bomb.

Muon-catalyzed fusion (**μCF**) is a process allowing nuclear fusion to take place at temperatures significantly lower than the temperatures required for thermonuclear fusion, even at room temperature or lower. It is one of the few known ways of catalyzing nuclear fusion reactions.

Muons are unstable subatomic particles. They are similar to electrons, but are about 207 times more massive. If a muon replaces one of the electrons in a hydrogen molecule, the nuclei are consequently drawn 20 times closer together than in a normal molecule. When the nuclei are this close together, the probability of nuclear fusion is greatly increased, to the point where a significant number of fusion events can happen at room temperature.

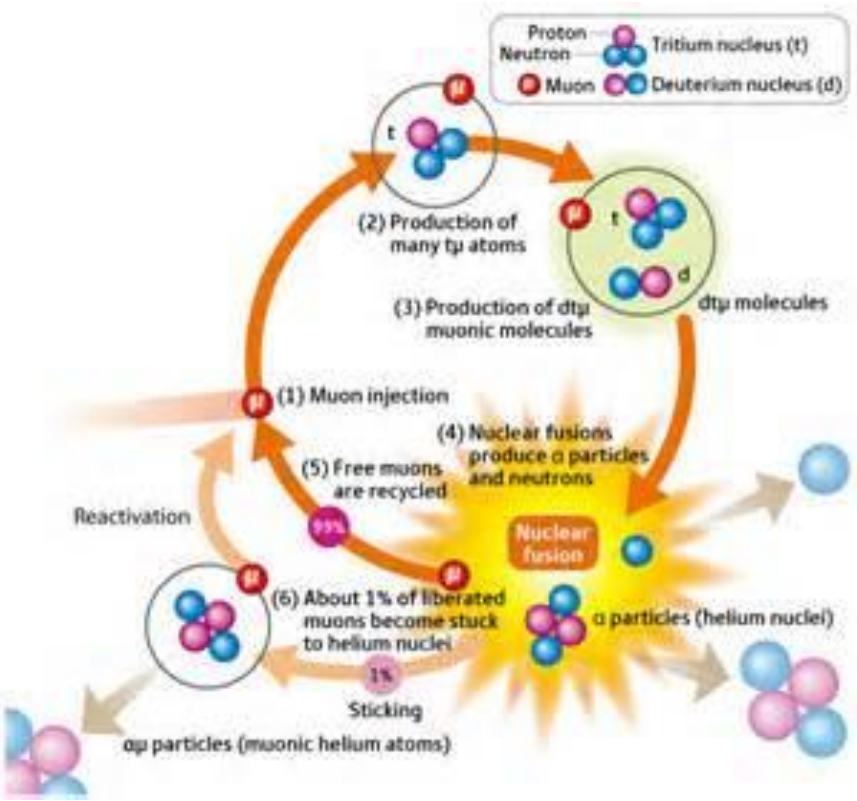

Figure 4 - Muon Fusion reaction

Current techniques for creating large numbers of muons require large amounts of energy, larger than the amounts produced by the catalyzed nuclear fusion reactions. This prevents it from becoming a practical power source.

Moreover, each muon has about a 1% chance of "sticking" to the alpha particle produced by the nuclear fusion of a deuterium with a tritium, removing the "stuck" muon from the catalytic cycle, meaning that each muon can only catalyze at most a few hundred deuterium tritium nuclear fusion reactions.

So, these two factors, of muons being too expensive to make and then sticking too easily to alpha particles, limit muon-catalyzed fusion to a laboratory curiosity. To create useful room-temperature muon-catalyzed fusion reactors would need a cheaper, more efficient muon source and/or a way for each individual muon to catalyze many more fusion reactions.

Muon-catalyzed fusion is a well established and understood fusion mechanism. Although it is also a relatively low temperature process, it is distinct from cold fusion.

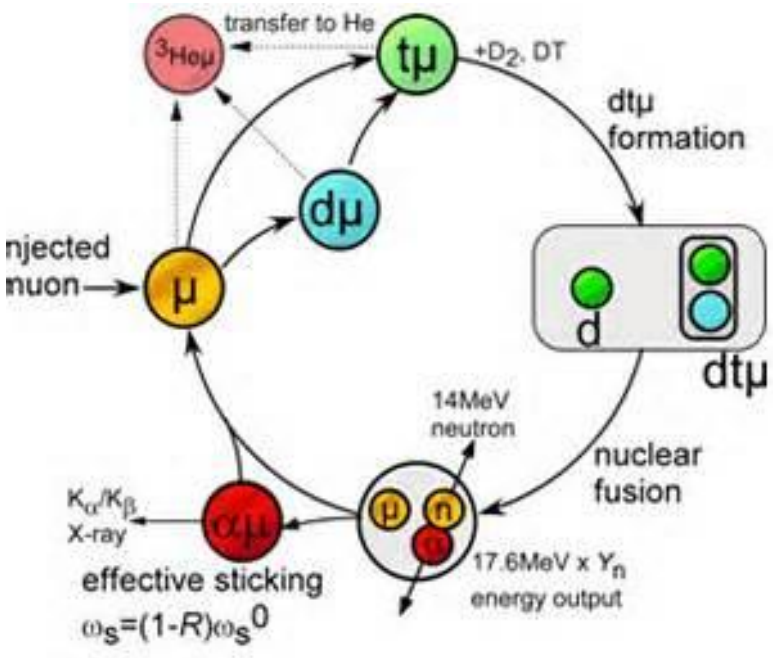

Figure 5- Muon Cold Fusion process

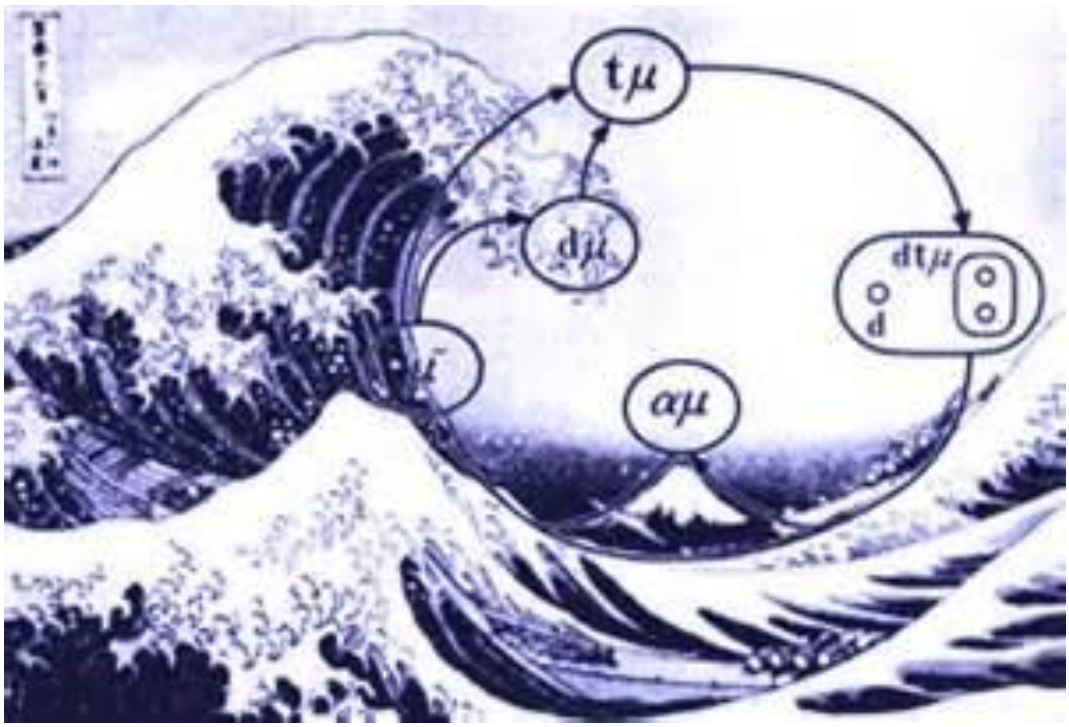

Figure 6 - Fusion Process, as found in Nature

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(54) **NANO-FUSION REACTION**

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(57) **ABSTRACT**

A nano-fusion reactor comprised of nano-particles such as carbon based nanotubes, endohedral fullerenes and other nano materials encapsulating fusible fuels such as the hydrogen isotopes, deuterium, and tritium. The nano-devices encapsulate the fusible materials and ignite fusion reactions which in some of the embodiments consume the nano-fusion reactor device requiring the replenishment of these devices so to continue the fusible reactions. The reactions can be controlled and scaled through modulated presentation of fusion targets to the ignition chamber. The fusion reactions are ignited in the embodiments through one or more of the applied forces in the fusion reactor: electromagnetic compressive, electrostatic, and thermo. These applied forces in conjunction with the extreme structural strength, the ablation forces and purity of the nano-fusion device produces maximum forces necessary for the production of a shock wave on the nano-encapsulated device to ignite one or a plurality of fusion reactions. The lower ignition energy is due to a smaller device with less fuel, more efficient coupling of applied energy by the nano-device, along with purer encapsulated fuels, and improved geometries has provided improvements over conventional ICF reactions.

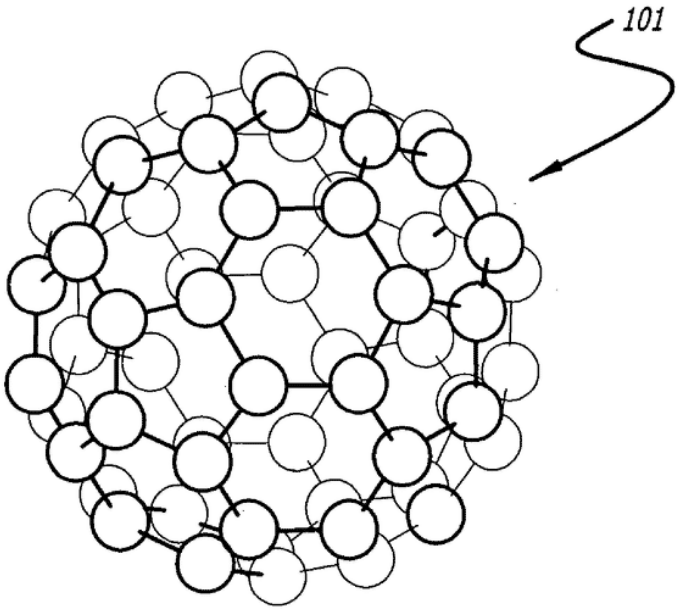


Figure 7 - 2008 US Patent for Neutron Fullerene Fusion Bomb

Abstract: *A nano-fusion reactor comprised of nano-particles such as carbon based nanotubes, endohedral fullerenes and other nano materials encapsulating fusible fuels such as the hydrogen isotopes, deuterium, and tritium. The nano-devices encapsulate the fusible materials and ignite fusion reactions which in some of the embodiments consume the nano-fusion reactor device requiring the replenishment of these devices so to continue the fusible reactions. The reactions can be controlled and scaled through modulated presentation of fusion targets to the ignition chamber. The fusion reactions are ignited in the embodiments through one or more of the applied forces in the fusion reactor: electromagnetic compressive, electrostatic, and thermo. These applied forces in conjunction with the extreme structural strength, the ablation forces and purity of the nano-fusion device produces maximum forces necessary for the production of a shock wave on the nano-encapsulated device to ignite one or a plurality of fusion reactions. The lower ignition energy is due to a smaller device with less fuel, more efficient coupling of applied energy by the nano-device, along with purer encapsulated fuels, and improved geometries has provided improvements over conventional ICF reactions. ...*
http://www.faqs.org/patents/app/20080247930

Figure 8 - Abstract to the 2008 US Patent for Neutron Fullerene Fusion Bomb

Part 2 - Teleportation of Light– "Huston, we have ignition"

There are now new ways of looking at transport processes when moving objects and light. As difficult as it may seem to understand such *non-standard* forms of transportation, the new laws of physics now allow and even encourage them. The secret lies in a feature of quantum mechanics called entanglement.

Two quantum systems are said to be entangled when they have more information about each other than they can have classically: They "know" more about each other than classical methods might otherwise allow. Entangled systems possess a kind of *quantum intimacy* that goes beyond anything that is allowed by the classical laws of physics.

Figure 9 – Quantum Intimacy, on various levels of the hologram

Teleportation - Entanglement gives rise to what Einstein called "*spooky action at a distance*" (*spukhafte Fernwirkung*), where an action performed on one quantum system seems to have an instantaneous (outside time) effect on an entangled system. Under normal circumstances, quantum *spooky action* at a distance does not allow one to communicate instantaneously, but it does allow the quantum effect known as teleportation.

Teleportation is a quantum version of the process familiar from Star Trek - the person/molecule/atom to be teleported dematerializes here, and rematerializes over there. This last century, scientists thought that quantum would not allow teleportation, because if you make measurements on the system to be teleported, quantum mechanics guarantees that those measurements are both destructive and incomplete.

Figure 10 – Teleportation vs. Transporter

They destroy features of the state of the measured system, and they cannot reveal the full quantum state of the system to be teleported. As a result, accurate teleportation of any quantum system was impossible by older laws of physics (because of Heisenberg's *Uncertainty Principle*)

In 1993, however, a group of quantum physicists realized that entanglement allows one to teleport a quantum system even though measurement is destructive and incomplete. The Uncertainty Principle states that the more you know about one thing, the less you know about another.

This concept works as follows: Suppose you would like to teleport an electron to me? Further, suppose that in addition to the electron that you are going to teleport, you and I also share a pair of entangled electrons. You make a measurement on the electron you want to teleport, as well as your half of the entangled pair. You then send the result of the measurement to me.

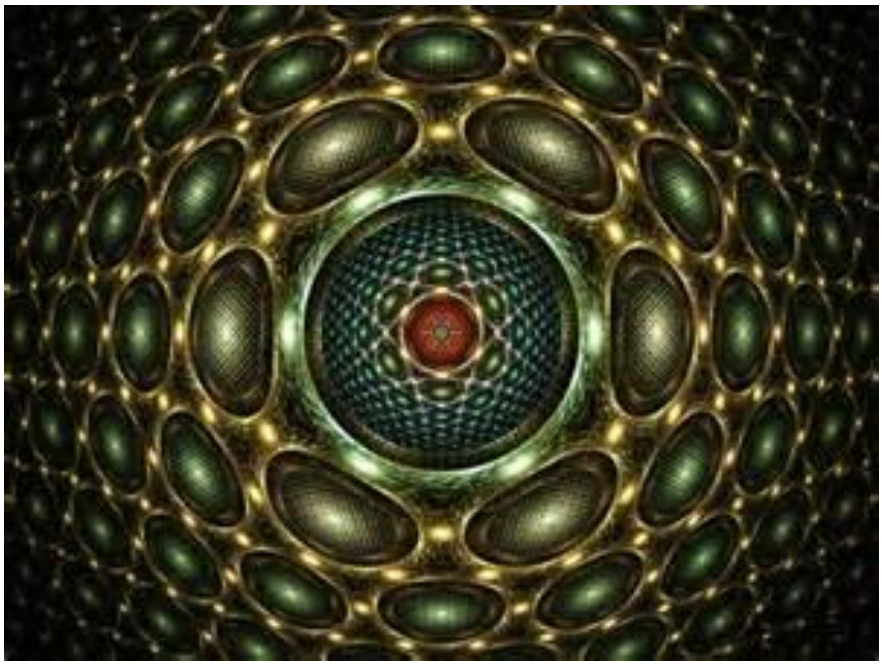


Figure 11 – The physics of transferring of quantum information

Now, even though your measurement is completely destructive, and reveals no information about the state of the electron that you wish to teleport. The result of the measurement contains exactly the information that I need to recreate the original electron from my half of the entangled pair.

Shortly after it was proposed, experimentalists made quantum teleportation a reality, teleporting particles of light, or photons, and even larger stuff, like electrons or atoms, over distances which now range beyond a hundred kilometers. Much larger quantum systems, like a human body, are not yet possible to teleport.

What's next…

One application nearest to a real life application of teleportation is secure communication, by using entanglement as a communication channel. The information is teleported to the other side, and there's no way anything can intercept that information. In principle it's 100 per cent secure.

A more ambitious experiment, involving the teleportation of information between buildings on the university campus 1,300 metres apart, is planned in July. It is hoped this will answer Einstein's main objection to teleportation, the possibility that a signal passes between entangled particles at the speed of light.

The teleportation of information does not work the same way that teleportation in "Star Trek." In "Star Trek," atoms are converted into energy, and then this energy is beamed to a new destination, where the energy is reconverted into atoms. In short, atoms physically move.

In a more modern form of teleportation, atoms don't move. Instead, information about the state of an atom or particle is moved from one place to another, without that information actually moving in between. This is an example of a holographic model of the universe, and why it is now used over quantum mechanical models.

Water caged in buckyballs - Water molecules can exist as one of two isomers depending on how the spins of their two hydrogen atoms are oriented: *ortho,* where the spins are parallel and have a spin number of 1, and *para*, where the spins are antiparallel and have a spin number of 0. With this model, any given molecule can transform from *ortho*- into *para*- spin states and vice versa, a process known as nuclear spin conversion.

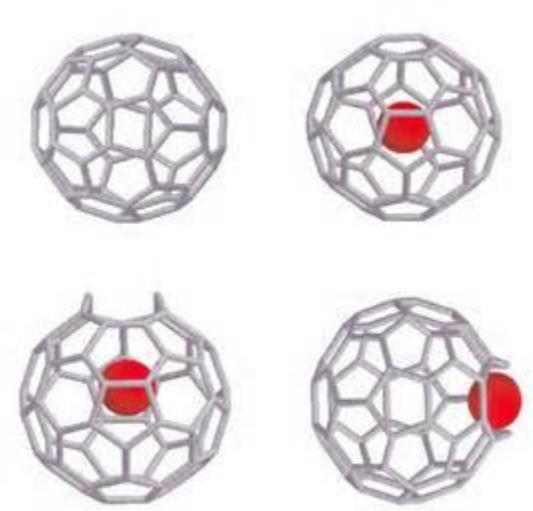


Figure 12 – How Deuterium (water isotope) is put inside a Fullerene

Because of the nanoscale dimensions, electrons propagate only along the tube's axis and electron transport involves many quantum effects. Because of this, carbon nanotubes are frequently referred to as "one-dimensional". The actual size of water is so small as to be able to fit within the boundary opens between atoms.

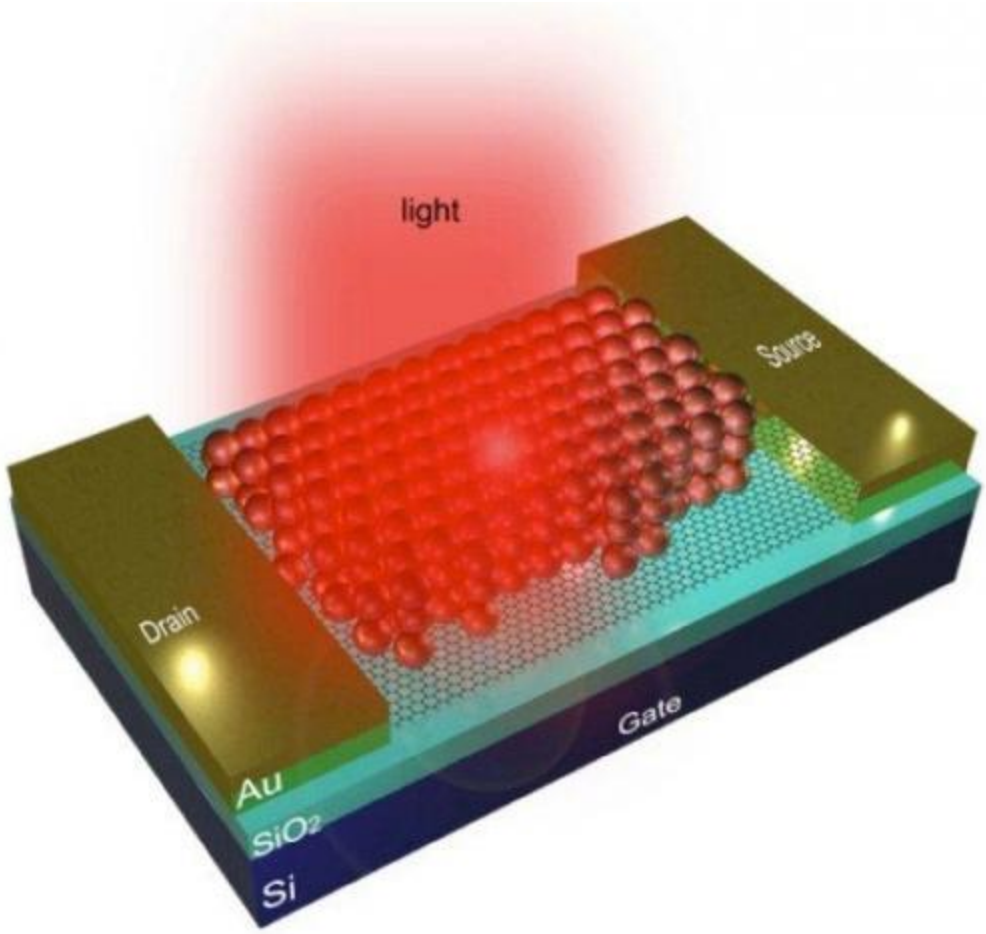


Figure 13 – Trigger mechanism, using pair entanglement of hydrogen atoms in deuterium

In a new study, physicists have teleported photonic qubits made of pairs of entangled photons that are generated by an LED containing an embedded quantum dot. The novel set-up has advantages compared to the conventional method of generating entangled photons using a laser, and could lead to a simplified technique for implementing quantum teleportation in quantum information applications.

Diamond Dynamics under Control - Ultrafast pulses from mode-locked lasers have become a preeminent tool for characterizing and controlling systems as diverse as biologically active molecules and semiconductor quantum dots. By varying the time between successive pulses, a vast range of temporal dynamics can be investigated, revealing dissipation mechanisms and even coherent processes.

Ultrafast control over the optical transitions of a *nitrogen vacancy* (NV) center is now possible. An atomic-like defect in diamond that has recently received considerable attention in the context of solid-state quantum devices.

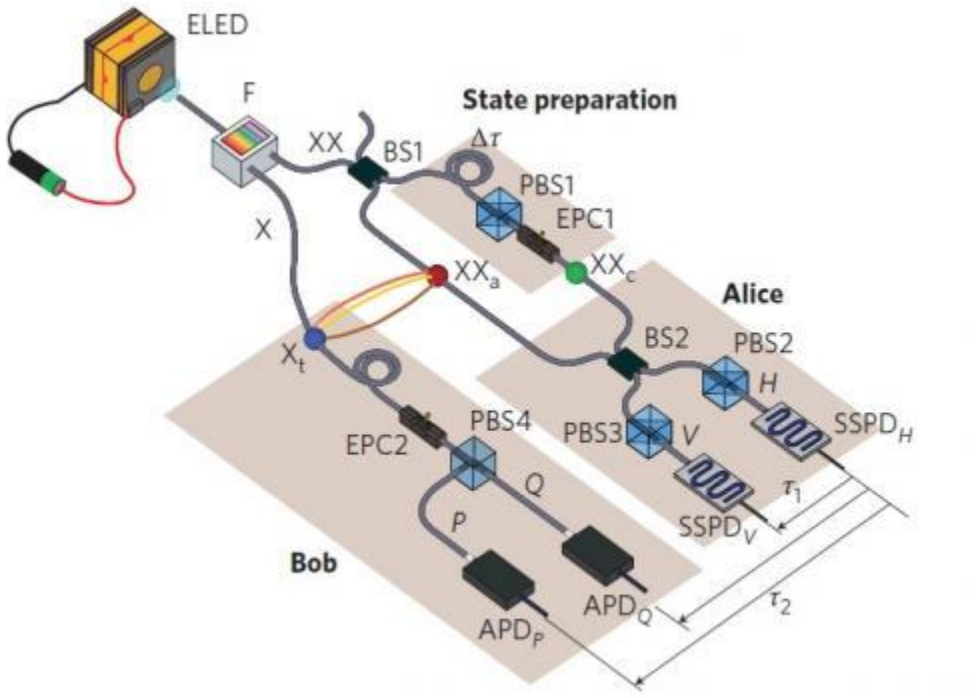
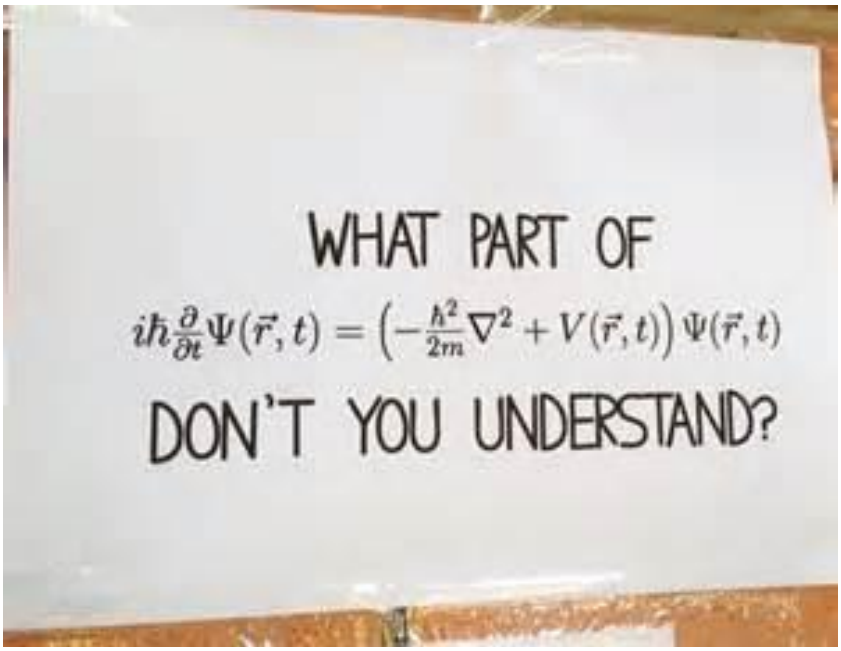


Figure 14 – Quantum teleportation mechanism, where "Huston, we have ignition"

Recent advances in NANO technology has overcoming technical challenges associated with addressing a single emitter at cryogenic temperatures. This work probes dynamics on nano-, pico-, and even femto- second time scales, creating a precise map of the NV center's excited state.

Moreover, they use the same tools to realize fast, all-optical control over a long-lived quantum bit (qubit) formed by the defect's spin degrees of freedom.

Once this quantum entangled hydrogen atoms are teleported inside the NV center (deuterium), plasma is formed, and a fusion reaction then occurs = "Huston, we have ignition." It is the fact that the fullerene is 100x stronger then diamond that allows it to also contain this reaction



Truth is stranger than fiction, but it is because Fiction is obliged to stick to possibilities; Truth isn't

- Mark Twain

Figure 15: What Part Of This Don't You Understand?

Part 3 – Building 7, and the 9/11 Event Revisited

At 5:20 PM, September 11th, 2001, a 47 story steel frame skyscraper in Manhattan underwent a swift, systematic, straight-down collapse. In a matter of seconds, the immense 600-foot tall structure was transformed into a small pile of rubble (and slag) lying almost entirely within the building's original footprint.

The building is variously known as Building 7, WTC 7, or 7 World Trade Center. Despite its address, it was across the street from the superblock containing the rest of the World Trade Center, and was of a different architectural style and newer than the 6 other WTC buildings.

Figure 16 – Building 7 prior to 9/11

The cause of the collapse has never been determined. FEMA's Building Performance Study , the only government document that addressed the collapse of Building 7 in any detail, stated:

> *The specifics of the fires in WTC 7 and how they caused the building to collapse remain unknown at this time. ... Further research, investigation, and analyses are needed to resolve this issue.*

By the time FEMA's report was published, the remains of Building 7 had been almost entirely destroyed, nearly all of the structural steel having been expeditiously removed and shipped to blast furnaces overseas. Without the physical evidence of the structural steel, such research, investigation, and analyses was impossible.

The Collapse of Building 7 was the third largest structural failure in World history, surpassed only by the collapses of the Twin Towers earlier that day. Fires are blamed for leveling Building 7, but fires have never caused the total or even partial collapse of a steel-frame high-rise, before or since September 11th.

Figure 17 – Building 7 remains standing 5 hours after the Twin Tower attacks

Why, then, was there no serious investigation of the collapse of this building, and why does it remain virtually unknown to the American public? The most prominent 9/11 conspiracy theory today is that the collapse of the Twin Towers and 7 World Trade Center were the result of a controlled demolition rather than structural failure due to impact and fire.

Possible motives claimed by conspiracy theorists for such actions include justifying the invasions of Afghanistan and Iraq as well as geostrategic interests in the Middle East, such as pipeline plans launched in the early 1990s by Unocal and other oil companies.

Or, to get a terrorism bill through congress…?

Figure 18 – Terrorism Act of 2000

What was in Building 7? - Building 7 was one of New York City's larger buildings. A sleek bronze-colored skyscraper with a trapezoidal footprint, it occupied an entire city block and rose over 600 feet above street level.

Built in 1985, it was formerly the headquarters of the junk-bond firm Drexel Burnham Lambert, which contributed to the Savings and Loans collapse, prompting the $500-billion taxpayer-underwritten bailout of the latter 1980s. At the time of its destruction, it exclusively housed government agencies and financial institutions. It contained offices of the IRS, Secret Service, and SEC.

One of the most interesting tenants was then-Mayor Giuliani's Office of Emergency Management, and its emergency command center on the 23rd floor. This floor received 15 million dollars worth of renovations, including independent and secure air and water supplies, and bullet and bomb resistant windows designed to withstand 200 MPH winds.

The Vertical Collapse of Building 7 - Building 7 collapsed in a nearly perfectly vertical motion at near the rate of free-fall. The first sign of the collapse is the falling of the penthouse, immediately followed by the falling of the whole facade, as seen from both the north and south. The middle of the building's north wall fell slightly faster than its edges.

In short, Building 7 imploded. Buildings are not designed to implode. They are designed to remain standing. To achieve a precisely vertical collapse, in which the remains of the building fall inward, is the objective of controlled demolition. What was strange was that neither thermite

nor excess jet engine fuel can actually get hot enough to slag concrete, found at the bottom of the debris.

Figure 19 – Concrete Slag of Building 7

After the building itself fell, there remained a single steel girder, some 617 feet high. Then it also began to fall, with video showing the steel vaporizing as it fell onto itself. Less than seven seconds after Building 7 began to implode, all that was left of the steel skyscraper was a rubble pile and concrete slag.

The Destruction of Building 7's Remains - Engineering is a science that melds theory and experience to create robust structures. Unintended structural failures are rare events that warrant the most careful scrutiny, since they test engineering theory.

That is why the NTSB carefully documents aircraft crash scenes, and preserves the aircraft remains, frequently creating partial reconstructions in hangars. If an investigation reveals a mechanical or design fault, the FAA usually mandates specific modifications of equipment or maintenance procedures system-wide, and future aircraft are designed to avoid the fault.

Building 7's rubble pile was at least as important as any archeological dig. It contained all the clues to one of the largest structural failures in history. Without understanding the cause of the collapse, all skyscrapers become suspect, with profound implications for the safety of occupants

and for the ethics of sending emergency personnel into burning buildings to save people and fight fires.

There was no legitimate reason not to dismantle the rubble pile carefully, documenting the position of each piece of steel and moving it to a warehouse for further study. No one was thought buried in the pile, since, unlike the Twin Towers, Building 7 had been evacuated hours before the collapse. The pile was so well confined to the building's footprint that the adjacent streets could have been cleared without disturbing it.

Yet, despite the paramount importance of the remains, they were hauled away and melted down as quickly as possible. The steel was sold to scrap metal vendors and most of it was soon on ships bound for China and India. Some of the smaller pieces and a few token large pieces of steel marked 'save' were allowed to be inspected at Fresh Kills landfill by FEMA's BPAT volunteers.

Dr. Frederick W. Mowrer, an associate professor in the Fire Protection Engineering Department at the University of Maryland, was quoted in the New York Times as saying:

> *I find the speed with which potentially important evidence has been removed and recycled to be appalling.*

What Caused Building 7's Collapse? - Upon watching any of the many available videos, that Building 7's collapse showed all of the essential features of a controlled demolition. WTC 7 collapsed approximately 7 hours after the collapse of WTC 1. Preliminary indications were that, due to lack of water, no manual firefighting actions were taken by FDNY.

> ***There is only one thing known in nature that can vaporize steel or slag concrete, that is a plasma.***

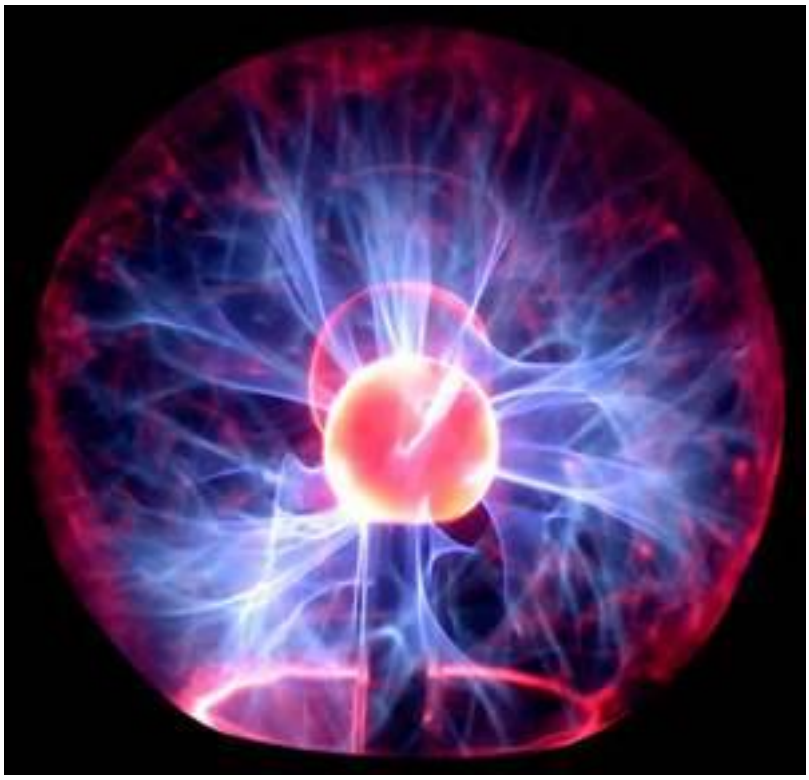


Figure 20 – Plasma Ball

If the steel were reinforced with fullerene carbon fibers, and the fullerenes contained deuterium, a controlled demolition could be orchestrated using laser triggering mechanisms (outlined earlier).

So now we have a new conspiracy theory,
where this new weapon was experimentally deployed.

With the way media is controlled today,
we will likely never know the truth.

Figure 22 – Toxic Signals

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Science News short

A Space Elevator by 2050, using Carbon Nanotubes

by
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Obayashi, a Japanese company, has announced they will have a space elevator up and running by the year 2050. If successful it would revolutionize space travel and potentially transform the global economy.

The Japanese construction giant says they will build a space elevator that will reach 96,000 kilometers into space. The company said the fantasy can now become a reality because of the development of carbon nanotechnology.

Figure 1 - Space Elevator by 2050

"The tensile strength is almost a hundred times stronger than steel cable so it's possible," Mr Yoji Ishikawa, a research and development manager at Obayashi, said. "Right now we can't make the cable long enough. We can only make 3-centimetre-long nanotubes but we need much more… we think by 2030 we'll be able to do it."

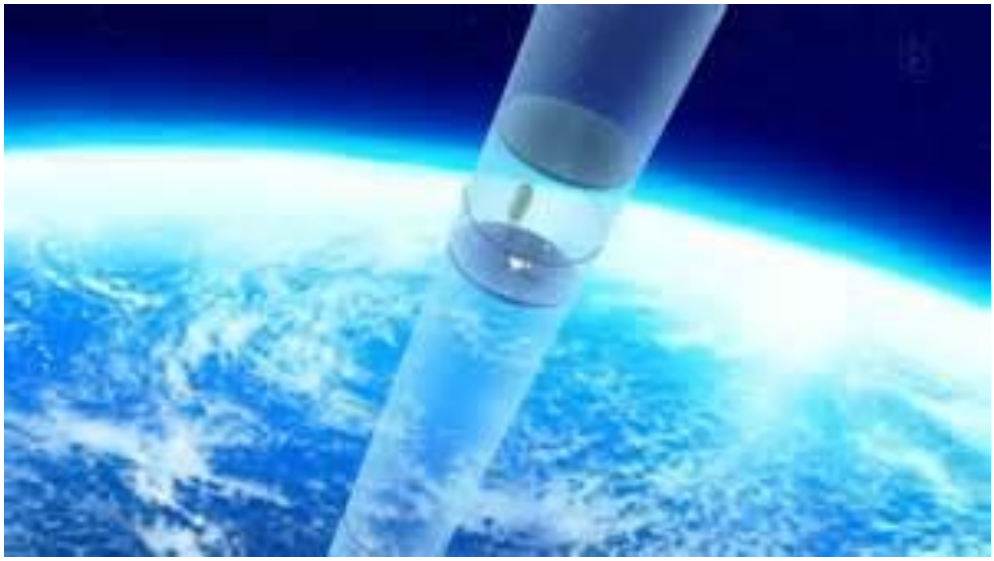

Figure 2 - Japan's Elevator into Space using Carbon nanotubes

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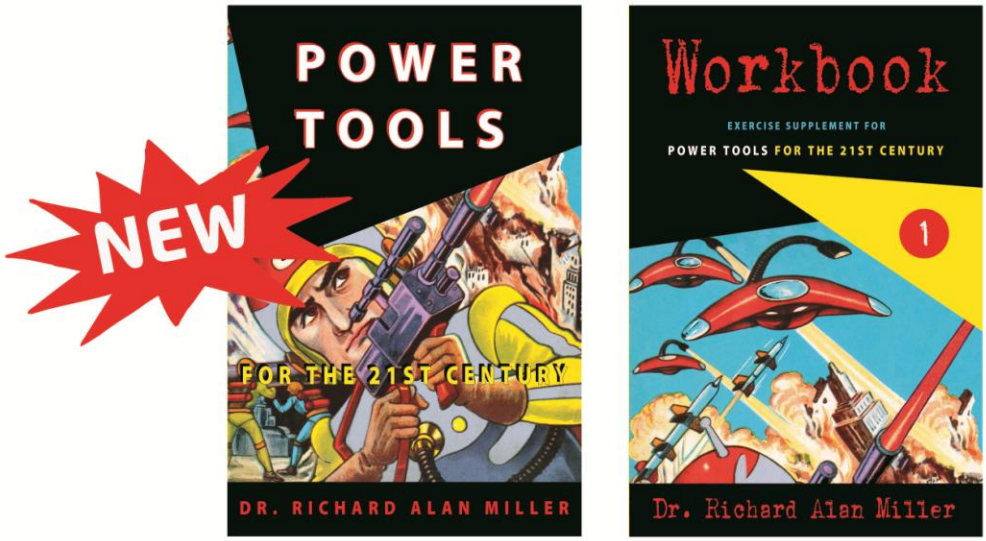
Dr. Richard Alan Miller

PHYSICIST | INNOVATOR | RESEARCHER | AUTHOR | OCCULT | METAPHYSICS | AGRICULTURE

Power Tools for the 21st Century



"Dr. Richard Alan Miller is one of the pioneers in the study of the paranormal. From studies designed to enhance military performance, he has created invaluable tools for living life in the 21st century. These techniques and processes can help you develop your own conscious evolution, and help you find your purpose in life."

Dr. Stanley Krippner, Ph.D, Co-author of *Extraordinary Dreams and How to Use Them*

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