

# Antimatter

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## Abstract

Current knowledge of antimatter has been a roadblock for the real understanding of antimatter. Antimatter is generated with high energy devices like particle colliders and proton guns. But those devices are definitely not needed because particle is its antiparticle, it all depends on particle's spin vector.

## ToEbi and Antimatter

Theory of Everything by illusion (ToEbi) [1] gives deeper knowledge and effective method for antimatter utilization. Key component in annihilation process is the spin vector orientation between particles. Based on ToEbi, particle and its antiparticle push each other away (II Law of ToEbi). That information alone opens huge opportunities. Spin phenomenon extends itself on stellar objects as well. Different spin directions between galaxies explains why Universe has an increasing expansion rate, in other words, no need for dark energy.

Because of different spin directions particle and its antiparticle won't contact and annihilate too easily. Weak spots are particle's spin axis poles. In normal conditions, particles with same spin direction won't annihilate when put together poles head-on. Particles just change their spin vector orientations due to the movement of FTEP flux from particles. Spin vectors point to the same direction hence the FTEP flux flows to the same direction and pulling force won't be generated.

In case of different spin directions, things change drastically. Different spin directions mean that particles will generate denser FTE between them. In other words, they will generate pulling force. Inadequate supportive repulsion on spin axis poles leads to annihilation of the particles.

During annihilation process two things occur. At first, small distance (possibly physical contact in ToEbi sense) between particles causes a change to their spin vector orientations, which ultimately leads to repulsive interaction.

At second, due to conservation of energy, if particle loses some of its mass, at the same time, it increases its spin frequency (due to stored kinetic energy). Phenomenon is observable for example in electron annihilation process. Electron loses mass all the way down to Planck constant value (without its units) but increases its spin frequency accordingly.

Another option for a particle, during the annihilation process, is to store used collision energy in a form of increased mass.

## It's everywhere

Currently antiparticles are produced with a particle colliders and proton guns. After impact, there will be plenty of very high energy particles with all kinds of spin orientations. With magnetic traps after collision point it's possible to separate and catch these high energy "antiparticles".

Good news is that we don't have to create antimatter. It's everywhere, every particle can act as its antiparticle. In some cases, we can find particle and its antiparticle from very handy package. For example, at room temperature hydrogen gas and water contains roughly 25% so called para-hydrogen and para-water. It means that protons in hydrogen diatomic molecule or in water molecule have the opposite spin directions.

At this point we can also settle the answer whether antimatter falls up or down. Based on Second Law of ToEbi for different sized objects, the answer is that both particle and its antiparticle experience gravitational interaction in the same way.

## Little experiment with electrons

When electrons with different spin direction approach each other (spin axis head-on) they won't repel each other immediately due to lesser repulsion. They come much closer than electrons having an arbitrary spin orientation. In case of very basic experiments (described below), at certain point most of these approaching electrons change their spin orientation (before the annihilation process kicks in), which causes a huge repulsive force between approaching electrons, resulting high velocity ejecting electrons.

At first, magnetize few metal pieces in such a way that contact surfaces have free electrons spin axis perpendicular to the contact surface. In order to understand what does that mean, one should read appropriate information from ToEbi paper. Put those pieces into a container (e.g. plastic tube) where they can't change their orientation. Every metal piece should have neighboring metal piece where the electron spin direction is different. Mild shaking of the container will put those electrons (with different spin direction) into a movement resulting ejecting high velocity electrons as described above (<http://youtu.be/EM69cCGZF8o>).

In order to achieve effective electron annihilation process with given method one needs much more precise instruments and conditions. Setting such experiment isn't too difficult task though. To gain accurate alignment between electrons put together, quadrupole magnetic field should do the job.

## Composite particles

Composite particles like protons can be annihilated with the same spin vector manipulation method as electrons. Easiest element to handle in order to create proton annihilation might be the ordinary tap water. It readily contains 25% water molecules which contain protons with different spin direction.

Only problem is to get those different spin direction protons aligned in pole-to-pole fashion. One possible way to accomplish that is to use chromium

plate. Chromium is antiferromagnetic metal which means that free electron in a lattice has a neighboring (vertically and horizontally) electron with opposite spin direction.

By putting water on chromium plate and freezing it there might emerge neighboring protons which have opposite spin directions and which are aligned in pole-to-pole fashion. However, putting those protons together in such a fashion that annihilation process starts is another story.

Much more efficient annihilation setup can be achieved with solid hydrogen. At low enough temperature all hydrogen atoms in di-atomic molecules are so called para-hydrogen where protons have opposite spin direction. Creating monolayers of solid hydrogen and putting them together with certain precise technique provides large amounts of simultaneous annihilation events. Naturally, it's possible to do experiments also with two distinct protons.

## Conclusions

We are entering a totally new world. Antimatter based technology is going to solve many current and future challenges of the mankind. Clean energy production, space travel technology, protecting Earth from incoming objects and so on.

Our biggest challenge will be how to **live** with that technology.

## References

- [1] Kimmo Rouvari, <http://www.vixra.org/abs/1211.0027>