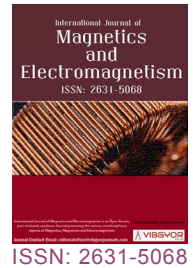Research Article: Open Access

Mass Changes in Container with Water after the Magnets Approach with Poles Equal

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Resume

Magnetism has been used by people since ancient times. In modern times, through it was possible to build devices and equipment, such as MRI, transformers, electric motors, among others. The objective of this study was to investigate the influence of neodymium magnets, with approximate equal magnetic poles on the mass of small containers with water. These were weighed on a precision scale before and after the approach of the magnets. After numerous tests, statistical analysis was performed. Mass change occurred in the samples tested. The conclusion - that when magnetic poles are approximate container with water may occur weight change of the container assembly - magnet - water and accessories.

Keywords

Magnets, Poles, Water, Mass

Introduction

The use of magnetism is held since ancient times. The compass, for example, is an instrument used due to the Earth's magnetic field. In recent decades it has more practical applications such as MRI, electric motors, generators, transformers and spintronics.

The big revolution in magnetism studies was done by Oesterd in 1820 [1]. Electromagnetism occurs when moving electric charges generate magnetic field and magnetic field in motion generates electric current [1,2].

The objective of this study is to demonstrate the mass increase in a set containing water; the like poles of neodymium magnets were approximate. There were no reports in the literature, so the lack of references. The experiment may then be performed in properly controlled environment, with better equipment and materials.

The funds were not enough for the experiment carried out in greater detail and more fully.

Magnetism

Pine (2009) states that the static magnetic fields are produced by stationary electric currents or magnets [3].

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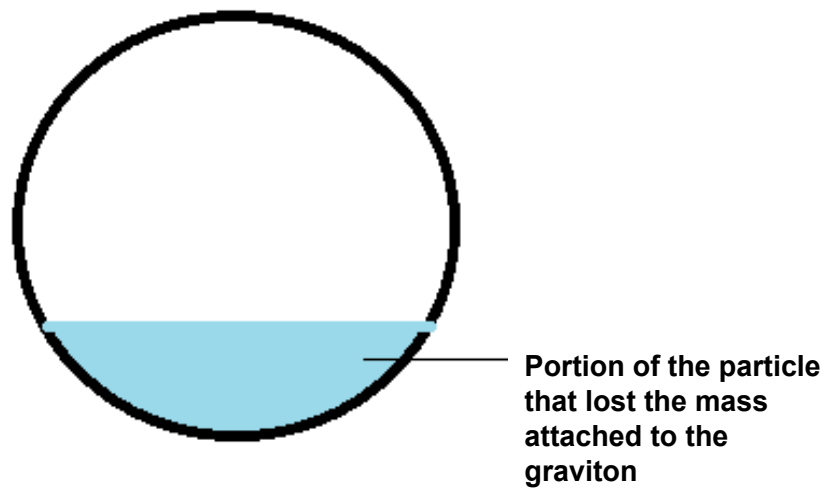
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Figure 1: Portion field that attracts the particle graviton.

There are no free magnetic poles, ie, there are no monopoles. There will always be a positive magnetic pole forming pair with a negative magnetic pole. The most important magnetic field is a magnetic dipole, which is the dominant component of the geomagnetic field. The simplest magnetic dipole consists of two magnetic charges of opposite signs infinitely close to each other [2].

The law governing the force (F) between two magnetic poles P1 and P2, located at a distance r between themselves, may be formulated by:

$$F(r) = k p1\, p2r\, /\, r^2$$

The magnetic induction is obtained by adding the applied field to the resulting external field the magnetization of the material. The induced magnetic moment per unit volume due to the material, is called intensity of magnetization or the magnetization, and is represented by the vector M, measured in A/m (Pine, 2009) [3].

$$B = \mu0(H+M)$$

Where M is the magnetization material and μ0 is the *Vacuum permeability* (Or magnetic constant). The field H is measured in amperesper subway (A/m) in SI units, and oersteds (Oe) in CGS units [3].

The aim of the experiment reported in this article was to register possible changes in mass when small neodymium magnets were approached - with the same polarity - above a small column of water.

Hypothesis

The graviton may appear when the magnetic field is theoretically annulled by magnets approach like poles. As a result it attracts particles or atoms. It can arise from the interaction with the oxygen atom nuclei of water. It may also be associated with a subatomic particle.

Resonance and other forms of spectroscopy may be used to detect the shape and the possible frequency of trapped material. With the removal of the magnets that mass would not be measurable.

All matter, to decompose into smaller, as in the Big Bang, you may have lost some of their strongly linked mass to energy; that originate graviton, comprising more mass "gravitational energy" (Figure 1) [4].

By interacting with the nucleus of the water associated with the particle will graviton towards the same. The verification of a mass increase of the assembly at this point could corroborate this statement.

For this to be done the imprisoned matter would have to leave the position or ceases to be measured. positron or electron beams could "push" that matter the place and this measurement is performed; This very quickly and depending on the material of load - positive or negative.

$$Me = Mt - Mi$$

Me: Mass trapped;

Mt: Total mass together more mass trapped

Mi: Initial mass assembly without mass trapped

The energy involved in the process for the entrapment of matter can be calculated by the formula:

$$E = m.c^2$$

Where E is the energy, mass ma ew speed of light squared.

Speed of light: 299,792,458 m/s

The same applies for the type of energy involved in graviton particle by water.

The particle graviton be united with the water and it would momentarily alone. He would often intrinsic vibration and vibrate according to the vibration of its associated particle.

The distance between the graviton and its particle is variable; when greater the distance, the greater the intensity of the graviton performance.

Probably several particles or trapped atoms are forming a specific volume. By separating and determining the volume of the molecules, atoms and/or particles, and the mode of interaction between them to form the graviton could be determined.

Can - using the formula for calculating the volume of each trapped matter in graviton:

$$\int_{a}^{b} [f(x)]^2 \, dx$$

The interval [a, b] refers - to a part of the solid which aims - to calculate the volume.

This theory does not contradict with the General Relativity. The large mass of a body could override the magnetic influences; the gravity of the star then draw the object and cause change in space - time. Travel in small time intervals of small objects would be theoretically possible [5].

The gravitational force exerted on the interaction between water and graviton particles can be determined by the formula:

$$F = G.M1.M2 / d^2$$

F is the gravitational force; G is the gravitational constant; M1 the mass of the particle graviton; The mass M2 of the core oxygen from water eda distance between the center of the particle and oxygen graviton mass.

Methodology

A PET bottle cap was used, which was fixed, and the inner side face, a small neodymium magnet. On the opposite side was placed a screw; This was pasted on the head another 35 N neodymium mag-

Figure 2: Neodymium magnet: Neodymium magnet size: Disc format, 6 mm by 2 mm.

Figure 3: Precision balance.

net with the exposed face of the same magnetic polarity to the other magnet. Inside the container was placed small amount of water. The vessel was placed over the replicates of the experiment on a digital scale mark of Diamond, and weighed according to the scale 0.00 grams. Each part of the experiment consisted of weighing the container before approaching magnet fixed to the screw through the rotation axis thereof, the bonded magnet of tampa. Testes were also conducted without water in the container. When there was little variation in the angle between the fixed magnet and the variable was not observed mass increase (Figure 2, Figure 3 and Figure 4).

Balance description: Model: Mini scale; Capacity: 500 g; Minimum weight: 0.1 g; Precision: 0.1 g; Scale dimensions: 7 × 10 cm; Size weighing plate: 6 × 6 cm; Weight: 75 g.

Statistical Analysis

The statistical analysis was Performed in the treatment Which magnetic axis in alignment occurred in the repetitions of the experimental group
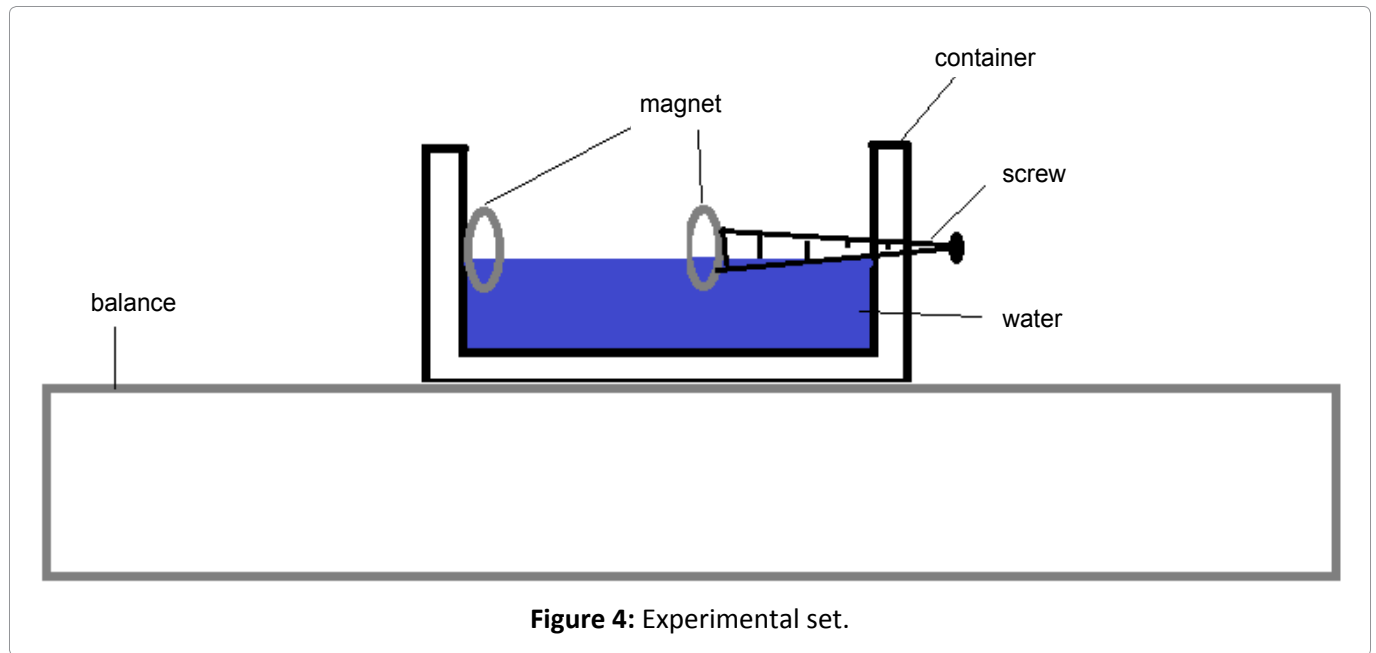

Figure 4: Experimental set.

Table 1: Statistical survey data.

Control group mass (in grams)	Mass of the experimental group (in grams)
9.72	9.87
9.6	9.77
9.66	9.67
9.64	9.69
9.67	9.72
9.59	9.79
9.56	9.62
9.43	9.79
9.52	9.79
9.55	9.71
9.53	9.66
9.52	9.55
9.57	9.81
9.5	9.55
9.47	9.53
9.45	9.62
9.47	9.47
9.54	9.87
9.43	9.46
9.42	9.43
9.47	9.48
9.44	9.52

Table 2: Results of the analysis sofware Bioestast.

Fontes de variação	GL	SQ	QM
Tratamentos	1	0.156	0.156
Erro	42	0.559	0.013
F =	11.7172		
(p) =	0.0017		
Média (Coluna 1) =	9.5341		
Média (Coluna 2) =	9.6532		
Tukey	Diferença	Q	(p)
Médias (1 a 2) =	0.1191	4.8408	< 0.01

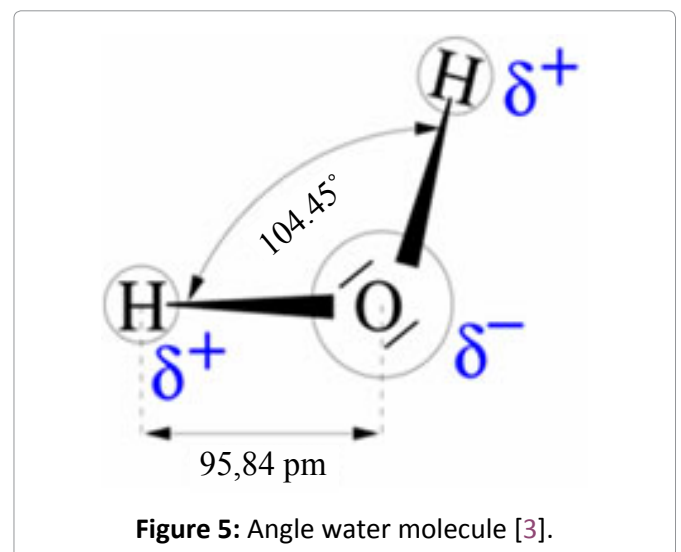From the statistical analysis, $P < 0.001$ considered - the very significant result.

Figure 5: Angle water molecule [3].

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(Table 1 and Table 2).

Results

It was observed repulsion between the magnets as the screw was set to approx.

There mass change object of the experiment when the same polarity of the magnets are aligned approximate shape and approximate at different angles; however, the angles have not been determined.

When the magnets are aligned approximate shape, forming an acute angle, a predominance of mass increase.

There mass reduction was formed when the approach angle of the magnets.

When replicates were performed without the water in the container, no significant change in mass.

Discussion

The effect observed when using water can not possibly occur when using other liquids. According to the angle of the water molecule of 104.45°, an oxygen atom core can exert gravitational effect on the trapped matter (Figure 5 [6]).

It was checked if there were spin alignment of electrons of oxygen atoms in the water nor variation of the magnetic core oxygen.

Possible applications would be the formation of nanostructures from the matter in the air. Examples of areas that could be used: Medical field, in conducting electricity and/or heat. One hypothesis is that these nanostructures could be created away from the magnets if they are strong enough; is calculated and addressed to internal tumors could change - and destroy them - them. Practical applications depend directly of the particles trapped in the equipment.

It is suggestive that pulsating magnetic fields - of different frequencies, applied or not simultaneously with each other and/or with magnetic fields of magnets of high intensity and with the same polarities approximate - may cause presence with detectable mass different atoms, particles and/or molecules; thus structures could theoretically be formed of different materials and chemical bonds [7,8].

Conclusion

Mass increase occurred when the same polarity magnets are approximated with minimum variation of the angle to the axis, a container containing water.

Statistically there was a variation of mass values between the experimental group and the control group.

The results suggest the interaction of particles, atoms or molecules or water, and/or the container and magnets.

There is a formulated hypothesis all the energies involved and the nature and location of the mass yet. The energies involved, the position and the nature of the mass may be the subject of research; other variables could be used as pulsed magnetic fields associated or not among themselves and with the fixed magnetic field, for example. It could be several practical applications, depending on what is found and discovered.

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