# **Dark Matter**

### Xiankui Jin

China Huanqiu Contracting & Engineering Corp., Fushun, China

**Abstract** Dark matter is the most extensive matter in the universe. Electromagnetic waves and light and universal gravitation and universe waves are waves of different lengths that generated by the vibration of dark matter. Dark matter is non-particle. It has non particle properties and mass and liquidity and inertia. Dark matter flow space is the magnetic field. The total solar eclipse occurs, the phenomenon of dark matter lens and dark matter cover can be observed. Observation data show that there is not wave-particle-dualism of light. The speed of light varies with the density of dark matter. There is no doubt that the photocathode and the hot cathode have the same mechanism in emitting electrons. Temperature is the macro-performance of the average frequency of the vibration of the fixed electrons in the atom. Heat is the sum of the kinetic energy of all electrons in matter. The essence of heat is the mutual conversion of vibration of fixed electrons and dark matter. The vibration of the fixed electron B, which is the heat conduction. Free electrons collide with fixed electrons in the vibration to produce resistance. It is phenomenon of superconductivity that the probability of collision between free electron and fixed electron is zero. The substance disappeared in nuclear reaction transmutes into the dark matter in the same mass. Nuclear electromagnetic pulse is a shock wave of dark matter. The Earth and the Sun Constitute a Giant Dynamo Together. The aurora phenomenon is the thin atmosphere produces the glow after electricity.

**Keywords** Non particle properties, Dark matter lens, Deflection angle, Nuclear reaction, Dark matter wind

# **1. Introduction**

Dark matter exists in anywhere in universe, even in the interior of the atom to fill the space between electron and atomic nuclei. It is the most extensive matter in the universe. Light and electromagnetic wave and gravitation and universal wave are waves of different lengths that generated by the vibration of dark matter. They transmit energy and message.

Dark matter is non- particle. It has mass and density and inertia. It can spread universal gravitation, but is not affected by universal gravitation. Because dark matter is a non particle, it is free to invade any material. Dark matter can interact with electrons.

- I. Electrons flux can interact with dark matter to form a dark matter flux in the special space. The special space is magnetic field [1].
- II. Dark matter can also interact with electrons to push electrons flowing in the same direction, forming the current in the conductor.
- III. Dark matter is also interacting with dark matter, which makes the magnets repel or attract each other.

Flux of dark matter from the S pole to N pole inside the

\* Corresponding author:

jinxiankui@sina.com (Xiankui Jin)

Published online at http://journal.sapub.org/jnpp

magnet. Outside of the magnet, the dark matter flux from the N pole to S pole. The flux of dark matter has a kinetic energy. No matter how the shape of the magnet, when the dark matter flow directions of the two magnets are the same, the two magnets attract each other. Conversely, the two magnets repel each other. Magnetic force is the inertia force of dark matter. No matter whether there is a magnet, as long as dark matter flowing, dark matter flow space is the magnetic field [1].

## 2. Phenomena of Dark Matter

#### 2.1. Dark Matter Vibrating

Because electrons can interact with dark matter, when the electrons vibrate at a certain frequency, the dark matter will vibrate at the same frequency. What some substance emits is light or electromagnetic wave, which is determined by frequency of the vibration of the electron. The speed and direction of the vibration propagation of dark matter is not affected by the flow of dark matter, is affected by change of dark matter density.

## 2.2. The Medium Kinetic Energy Translate into Electric Energy

The conductor transverse motion via flowing dark matter (Commonly known as cutting magnetic force lines) to generates  $A \rightarrow B$  current.

Copyright © 2017 Scientific & Academic Publishing. All Rights Reserved



Figure 1. The conductor cutting magnetic field lines to generates current

The dark matter from N pole likes a wind from a nozzle. While the conductor transverse motion via flowing dark matter, the dark matter around the conductor is driven by linear motion the dark matter to carry out a circular motion surround conductor. The dark matter around the conductor is like an "impeller". While the conductor is stationary, the "impeller" is stationary too. While conductor is in transverse motion, the "impeller" will rotate.

We can make an experiment with the flowing air and a real impeller. Let the axis of impeller fast motion along the vertical section of the air flow. We can see the impeller rotates quickly. When the axis of the impeller is stationary, the impeller is still in a state of rest too.



Figure 2. The sketch map of the impeller rotation

Circular motion of dark matter around a conductor drives electrons in the conductor to flow in the same direction to form current. The direction of circular motion of dark matter around a conductor and current direction comply with left-handed spiral rule. At same time, the current in the conductor drives dark matter around the conductor to moving in a circle. The moving in the opposite direction abide by the right-hand spiral rule.

In a magnetic field, [1] kinetic energy of the dark matter that comply with left-handed rule and that around the conductor carry out a circular motion is far greater than the kinetic energy of the dark matter that is driven by the current to move around the conductor in a circular motion. The kinetic energy of the dark matter that comply with right-handed rule and that around the conductor carry out a circular motion is completely counteracted. The movement of a conductor needs to overcome the resistance of opposite direction.

The process of power generation is mechanical energy convert to kinetic energy of dark matter, and kinetic energy of dark matter [2] convert to electric energy. Motor is inverse process of power generation. Electric energy convert to kinetic energy of dark matter [3], kinetic energy of dark matter convert to mechanical energy.

#### 2.3. Dark Matter Lens

Density of dark matter [4] is much than dark matter outside magnetic field [5]. The more much dark matter, faster the spread of light. The intensity of the magnetic field is much, dark matter gradient greater, the refractive index is higher and the space of the magnetic field is larger. The closer to the magnet, the magnetic field is strength. Because of the existence of the dark matter gradient, the phenomenon of lens appears around a star with a large magnetic field strength.

H --- Magnetic field intensity ρ--- Dark matter density v --- Flow rate of dark matter

$$H = \rho v \tag{1}$$

When the air is moving fast, sound transmission will be affected. Electromagnetic waves and light and Universal gravitation and the universe waves with dark matter as carrier will not be affected by the rapid flow of dark matter. The reason is that the gap between the velocity of dark matter and the speed of light is too great.

The dark matter lens is an optical phenomenon formed by the dark matter gradient around magnet and the environment. [6] Light passes through the dark material surrounding the magnet to deflect.

# 3. The Proof of Dark Matter Existing

In theory of gravity deflection of light, the distance d and the center of mass are the parameter that determines the magnitude of  $\alpha$ . [7] In fact, the measured deflection angle changes with time.

Light rays deflect near the sun.



Figure 3. Light deflection diagram

The smaller the distance, the larger  $\boldsymbol{\alpha}$ 



Figure 4. Light deflection angle diagram

The magnetic field [8] is made up of dark matter of with high density [9] circulating flowing. It forms a huge lens around the sun. [8] Any light through the lens will be deflecting. The total solar eclipse occurs, starlight deflection angle around the sun can be measured. Because the sun's rotation and the lens are very irregular, the values of the measured data are very different.

Due to solar activity, [10] the magnetic field [8] intensity is different in different time period at different regions of the sun surface. It means that the density of the dark matter around the sun changes in any time any regions. At different times of the total solar eclipse, the deflection angle  $\alpha$  of the starlight will be very different.

The size and amount of sunspots show the degree of solar activity.

With the same total solar eclipse, the angle of deflection of the starlight measured at different locations is different. Reason:

- I. The sun is constantly rotating
- II. In different areas around the sun, dark matter density is very different

III. There is a time difference between these different observing sites.



Figure 5. Sunspot [11] photo

These are the best proofs of the dark matter flowing space is the magnetic field. It is also the best evidence that dark matter is the medium of light propagation.

The original intention of the observations is to verify correctness the prediction of general relativity. In order to beneficial for prediction of general relativity, the data that extremely unfavorable to prediction of general relativity is excluded. Average value is calculated. In spite of this, the measured data still do not support the predictions of general relativity.

It can be imagined, the different among the original data is greater. The extreme adverse measured data show that the difference in the degree of sunspot activity in different regions of the sun's surface is very large, lead to a very large difference in the density of dark matter. Total solar eclipses occurs, the deflection angle of the measured star is proportional to dark matter density [13] gradient. Gradient [14] change rate becomes larger, as distance from the sun smaller.

$$\alpha = f(\Delta \rho) \tag{2}$$

Where,  $\alpha$  is a deflection angle.  $\Delta\rho$  is the density gap of the dark matter.

The light passes through the lower density portion of the dark matter lens to the deflection occur. Roy of A that can reach the earth can not reach the earth, Roy of B that can not reach the earth but reaches the earth.

date	site	Result and error (second of arc)			
May 29,1919	Sobral	1.98±0.16			
	Principe	$1.61 \pm 0.40$			
September 21, 1922	Australia	$1.77 \pm 0.40$	1.42±0.16	1.72±0.15	1.82±0.20
May 9,1929	Sumatra	2.24±0.10			
June 19,1936	USSR	2.73±0.31			
	Japan	1.28±0.13			
May 20, 1947	Brazil	2.01±0.27			
February 25,1952	Sudan	$1.70{\pm}0.10$			
June 30, 1973	Mauritania	1.66±0.18			

Table 1. Total solar eclipses occur, measured optical deflection data. [12]



Figure 6. Total solar eclipses occur, the sketch map of dark matter lens

The star's rays reach the point closest to the Sun, where the star's light begins to move from the high-density dark matter to low-density in curve form. Because the higher the density of dark matter, the faster the light, the light has the character of pro-high density dark matter. When the light travels, it deflects toward one side of the dark matter high density. When the density of dark matter is uniform, the starlight travels in a straight line. The distance [15] from the edge of the solar magnetic field to the sun center is about 9 solar radii.

If distance d is less than 5 times the solar radius, then the magnitude of  $\alpha$  exceeds the measuring range. The total eclipse occurs, starlight within 5 times the radius of the sun can not be measured. This is a phenomenon of dark matter cover.

Phenomenon of dark matter cover is that the density of dark matter increased from outside to cause the deflection angle of starlight to become large, so that starlight can not reach the earth.



Figure 7. Total solar eclipses occur, the sketch map of dark matter cover

The phenomenon of cover and lens are powerful proofs confirming that dark matter [16] flow space is the magnetic field. Light has no mass and is unaffected by gravitation.

The existence of dark matter lenses can be verified experimentally. Dark matter lens test equipment consists of a lasers, a 50 Tesla world's strongest artificial magnetic field, and a the target composition. The diameter of the laser beam produced by the lasers should be less than 1 mm. the distance between artificial magnetic field and the target should be greater than 10 km.

Do two experiments: the first time, the laser does not go through the artificial magnetic field and reaches the target. The second time, the laser passes the artificial magnetic field and reaches the target. In the two experiments, the laser light on the target completely coincide, indicating that the dark matter lens is not present. In the two experiments, the laser light on the target does not completely coincide, indicating that the existence of dark matter lens. **The experiment follows Figure 8.** 



Figure 8. The existence of dark matter lenses



Figure 9. Electromagnetic spectrum [23] with visible light highlighted

# 4. The Non - Particle Nature of Dark Matter

Nuclear magnetic resonance [17], X-ray [18, 19] and gamma-rays [20] can penetrate into any substance, because the interior of any substance is filled with dark matter. X-rays and  $\gamma$ -rays propagate inside the material and gradually transfer the vibration to the fixed electrons until the energy is exhausted. These indicate that the dark matter is non-particulate. It is the strongest evidence that the first physics-run data of the PandaX-II 500 kg liquid xenon dual-phase time-projection chamber, operating. [21, 22]

Electromagnetic spectrum [23] with visible light highlighted is only part of the dark matter vibration frequency.

Non-particle properties are the most important dark matter properties [9]. Thus, it can fill entire universe, even in the atomic nucleus and the space between the electrons. When a space in the air density is less than a certain value, the sound is not spread. However, no matter how small the density of the dark matter, any vibration of the dark matter can be transmitted, only the speed becomes slow. Non particle properties guarantee the continuity of, guarantee transmission information, and ensure regular operation of all galaxies in the universe.

## **5. Interaction of Light and Electron**

### 5.1. Photoelectric Effect

There is no doubt that the photocathode [24] and the hot cathode [25] have the same mechanism in emitting electrons. They just get energy in different ways. However, Einstein's photoelectric effect theory can not explain the hot cathode.

Light waves are the vibrations of the dark matter in the direction perpendicular to the beam. This kind of movement

is the vibration that the dark matter in situ does the to and fro motion. When the dark matter transmits vibrations to the fixed electrons in an atom of a particular substance, the fixed electrons in the atom then move back and forth at the frequency of light, which is called vibration. The vibrational fixed electrons in the atom collide with the running free electrons. The available active space of the fixed electrons in the atoms of certain substances is constant and different from each other.

When the light irradiates certain special materials, these fixed electrons obtain the same frequency of vibration as the light. The higher the frequency of light is, the faster the rate of those fixed electrons' movement will be, and the greater the kinetic energy those free electrons will gain. When the kinetic energy those free electrons gained is great enough for electrons to escape from the surface of the substance, Photoelectric effect occurs.

m --- Quality of electron

V --- Rate of electrons A --- Amplitude of vibration

 $\omega$ --- Frequency of vibration

E--- Electron kinetic energy

$$E = \frac{mv^2}{2} \tag{3}$$

$$v = \omega A \tag{4}$$

$$E = \frac{m\omega^2 A^2}{2} \tag{5}$$

When the value of  $\omega$  is certain, different substances are irradiated by the same beam of light, the greater A, the greater E. Where, A is the maximum allowable vibration amplitude of the fixed electrons in the material.

As a consequence, the lowest frequencies of light that induce photoelectric effects are different in different substances. When the frequency of vibration is constant, the larger the space of fixed electrons is, the faster the fixed electrons move. If the A of a substance's fixed electron is relatively large, the lowest frequency of the light that induces the photoelectric effect is relatively low.

The frequency of the light that induces the photoelectric effect corresponds to a temperature usually in the order of several thousand degrees Celsius. Most of the material at this temperature has been melting. Therefore, the material suitable for the hot cathode is far less than the material suitable for the photocathode.

They are fully consistent with the fixed electron and dark matter interaction photoelectric effect.

The energy of the emitted electrons does not depend on the intensity of the incoming light, but only on the energy (equivalently frequency) of the individual photons. It is an interaction between the incident photon and the outermost electrons. [23]

The "all-or-nothing" [23] principle proves that fixed electrons interact with dark matter by transmitting the same vibrational frequencies.

The free electrons that escape from the surface of a particular species are about 1/6 the number of electrons that collide. The so-called photon counter only records approximately 1/6 of the dark matter's vibration. The photo-electrical effect is the inverse process of giving out light of some electrified substance.

Photochemical reaction [26] is one of the manifestations of photoelectric effect.

#### 5.2. Thermal Mechanism

#### 5.2.1. Thermal Mechanism

When the temperature of the atom rises, the frequency of the fixed electron' vibrations increase in fact. Temperature is the macro-performance of the average frequency of the vibration of the fixed electrons in the atom. As far as an atom is concerned, the frequency at which the fixed electrons vibrate is the temperature. When the metal wire is heated up to some temperature, which means that the kinetic energy of the electrons is great enough to escape the surface of the substance, it also emits electrons. The mechanism is the same that the substance emits electrons in the photo-electrical effect.

The dark matter inside the substance always vibrates following the vibration of the fixed electrons and transmits the vibration outside, which is radiation. At normal temperature, the vibration frequency of the fixed electrons in atom is as same as the frequency of infrared ray. When the temperature of the substance rises to some degree, it starts to give out light. There are free electrons and fixed electrons inside the metal that transmit kinetic energy via collision, so the metal is of well thermal conduction.

Heat is the sum of the kinetic energy of all electrons in matter. The essence of heat is the mutual conversion of vibration of fixed electrons and dark matter.

Thermal radiation and electromagnetic radiation as a

form of heat. [27]

Obviously, the mechanism of heat is consistent with Planck's law of black body radiation. [28]

At the same temperature, the average vibrational frequencies of the fixed electrons of atoms in different substances are different.

The vibration of the dark matter is transmitted to the fixed electrons of different substances, the efficiency is different. The closer the vibrational frequency of the dark matter is to the vibrational frequency of the fixed electron, the higher the efficiency of the dark matter vibrations being imparted to the fixed electrons. Conversely, the lower the efficiency. The higher the vibration frequency of the fixed electron, the higher the dark matter.

#### 5.2.2. Thermal Conduction Mechanism

#### 5.2.2.1. The Thermal Conductivity of Metal

A free electron is colliding with the vibrating fixed electron A, and the kinetic energy of the fixed electron [29] A is transmitted to a free electron, and the vibration frequency of the fixed electron A is decreased. Then, the free electrons collide with the fixed electrons B, and the free electrons transfer kinetic energy to the fixed electrons B, and the vibration frequency of the fixed electrons B is increased. The vibration of the fixed electron A is transmitted to the fixed electron B, which is the heat conduction.

#### 5.2.2.2. The Thermal Conductivity of Non-Metal

The vibration of the fixed electron A is transmitted to the dark matter. Then, the vibrations of the dark matter are transmitted to the fixed electrons B. Since the vibration is transmitted less efficiently, the thermal conductivity of the non-metal is poor. (The efficiency is the overall efficiency of the substance. When the dark matter and fixed electrons vibrate in the same frequency band, all the transmission vibrational efficiency between dark matter and fixed electrons is 100% or nearly 100%. Overall efficiency is low because the frequency of transmission is usually more than one million.)

At room temperature conditions, while the following conditions to meet the non-material has good thermal conductivity:

- I. Fixed electronic vibration frequency in the low frequency band
- II. High-efficient transmission of vibration

A very small number of non-metallic materials with good thermal conductivity, E.g, Highly electrically conductive silver is less thermally conductive than diamond, which is an electrical insulator [30]. Fixed electronic vibration in the low frequency of the material, it is certainly insulating material. The efficiency of the transfer of vibration is close to zero, the material is both insulating material and insulating material.

#### 5.3. Resistance and Conduction

#### 5.3.1. Mechanism of Resistance and Superconductivity

While some substance is electrified, the electrons flowing in order transmit kinetic energy to the fixed electrons in atom via collision. This kind of collision happens constantly, the vibration frequency of fixed electron is increasing constantly. The vibrational frequency of the dark matter increases in synchronism with the frequency of the fixed electrons. When the vibration frequency of the dark matter is the frequency of visible light, the object starts to emit light.

The collision between the free electrons of a directed movement and the fixed electrons of an atom is the resistance. The higher the vibration frequencies of fixed electrons, the larger the probability of the collision between free electrons and fixed electrons also, and the greater the electrical resistance of the conductor also. The average vibration frequency of a fixed electron is the temperature of the conductor. [31]

Because of the existence mutual exclusion of Coulomb force, they don't contact each other when the free electrons collide with fixed electrons in the vibration. Free electrons only constantly transfer kinetic energy to fixed electrons, the average vibration frequencies of fixed electrons is getting higher and higher. The temperature of the conductor continues to rise. [31] At same time, the fixed electron in the vibration continues to transmit the vibration to the dark matter. The conductors produce electromagnetic wave and infrared or visible light. Infrared is thermal radiation. In the end, the total kinetic energy of free electron [29] transfer fixed electron fixed electron transfer to the dark matter. [32]

$$E = \frac{m\omega^2 A^2}{2} \tag{5}$$

When the value of E is certain, the smaller A, the greater  $\omega$ . A good luminescent material has a very small space to allow vibrations of the electrons in the atom.

When the frequency of the fixed electron vibration of all the atoms in a conductor is lower than critical frequency, and the conductor temperature is lower than the critical temperature, the probability of collision between free electron and fixed electron is zero. That is to say, the resistance of the conductor is zero. This is phenomenon of superconductivity.

When the vibration frequency of the fixed electrons of the atoms in the special conductor is much higher than that of critical frequency, the temperature is above 100 K, the vibration of fixed electron is not full range of vibration (Reciprocating motion is not the whole process). At this time, a channel that allows free electrons to move freely appears inside the atom. The probability of collision between free electrons and fixed electrons is zero. When the temperature of conductor is much higher than the critical temperature, the resistance of the conductor is zero. This is the phenomenon of high temperature superconductivity.

#### 5.3.2. Non - Metallic Conductive Mechanism

At room temperature conditions, the substance having the following conditions is a semiconductor [33]:

- I. Fixed electronic vibration frequency in the high frequency band.
- II. High-efficient transmission of vibration

The fixed electrons at one end of the semiconductor can collide with the free electrons in the conductor. After the kinetic energy is obtained, the fixed electronic vibration frequency is increased. Through the dark matter, vibration is transmitted to the fixed electrons of the other end. The fixed electrons collide with the free electrons, and the kinetic energy transferred [34] free electrons in other end conductor. The higher the temperature, the higher the probability that the fixed electron collides with the free electron, and the better the electrical conductivity. Such as silicon, germanium, and gallium arsenide.

In the process of transmitting vibration, a small amount of vibration will escape. The semiconductor emits a small amount of electromagnetic waves. [35] The frequency of the electromagnetic wave emitted by the fixed electron vibrations in the semiconductor is in the visible spectrum, and the semiconductor will emit light. As the band of fixed electrons is very narrow, the semiconductor light, the frequency band of light is also very narrow.

At the heart of these mechanisms are the vibrations of fixed electrons, the vibrations of dark matter, <sup>[16]</sup> and the interaction of dark matter with electrons.

## 6. Wind of Dark Matter

#### 6.1. The Transmutation of Substance into Dark Matter

Total rest mass on left side = 6.015 + 2.014 = 8.029 u;

Total rest mass on right side =  $2 \times 4.0026 = 8.0052$  u;

Missing rest mass = 8.029 - 8.0052 = 0.0238 atomic mass units.

In a nuclear reaction, the total (relativistic) energy is conserved. [36]

Nuclear explosions occur, and instantly produce large amounts of dark matter. Since there is not a strong magnet to bind dark matter [16], explosion center density rises sharply, causing the surrounding dark matter to oscillate violently. Nuclear electromagnetic pulse [37] is a shock wave [38] of dark matter. Nuclear electromagnetic pulse [37] is the nuclear reaction of the disappearance of the material into a strong evidence of dark matter.

The substance disappeared in nuclear reaction transmutes into the dark matter in the same mass, correspondingly with the release of nuclear energy and the disappearance of universal gravitation. A good deal of substance transmutes into the dark matter because of the nuclear reaction inside the sun. When the sun releases dark matter, the emitted dark matter forms an open magnetic field [39], the solar system magnetic field [39]. This is solar wind. Solar wind is the wind of dark matter in essence.

#### 6.2. Sun-Magnetic Field & Solar Magnetic Field

The whole space of the solar system is a space for the flowing of the dark matter that is actuated by the sun, which is to say that the solar system is a huge magnetic system. Sun-Magnetic Field is formed by the dark matter circumflex driven by the magnets inside the sun. The sun-magnetic field and the solar magnetic field are mutually independent of each other. There is a distinct edge of dark matter between the solar system and the cosmic space. The dark matter in the solar system [40] flows faster than the one in cosmic space because dark matter in cosmic space [41] flows extremely slowly.

# 6.3. The Earth and the Sun Constitute a Giant Dynamo Together

When the dark matter wind arrives at the earth, the rotation of the earth makes itself a rotor of this giant dynamo because the earth per se is a conductor. The internal electric current flows from the South Pole to the North Pole. The sun is the stator of this giant dynamo and the earth is the rotor of it. When the discharge occurs in the South or the North Pole, there is an incredible aurora scene. An external closed return circuit is formed via atmospheric ionized layer. The ionized layer is the result of the ionization of the rarefied gas produced by the electric discharge happening on the South or North Pole. Generally, the potential difference [42] between North Pole and South Pole is merely several kilovolts. [43]

When the solar storm happens, the potential difference between the North Pole and the South Pole could be several hundreds of kilovolts. Solar storms once have played the role of starter.

The aurora phenomenon is the thin atmosphere produces the glow after electricity, which is the same as neon lamp.

Nevertheless, when the solar storm happens on the sun stator, both the density and the velocity of dark matter wind [44] increase greatly, and kinetic energy of dark matter [45] wind in unit volume increases several tens of times or even several hundreds of times. Then the huge electric current is produced inside the north-south long-distance transmission lines on the earth. The resistance of the from-north-to-south long-distance transmission lines increases greatly and even the electric current can hardly be transmitted. Because the electric current increases several times, the terminal transformer system of the from-south-to-north long-distance transmission lines may be destroyed.

The Québec event [46] proves the existence of a generator with a sun stator and an earth rotor. It also demonstrates that the mass loss caused by nuclear fusion within the Sun is the conversion of matter into dark matter. The solar wind is dark matter wind. Various charged particles and alpha particles are dusts carried by the dark matter.

# 7. Conclusions

Dark matter flow space is the magnetic field. Light has

no mass and is unaffected by gravitation. Dark matter has non-particle properties and mass. Dark matter has most of the quality of the universe and occupies the whole space of the universe. It invades the interior of all matter. Light and electromagnetic wave and gravitation and universal wave are waves of different lengths that generated by the vibration of dark matter. Dark matter can interact with electrons. The speed of light varies with the density of dark matter. The substance disappeared in nuclear reaction transmutes into the dark matter in the same mass. The solar wind is the wind of dark matter in essence.

# REFERENCES

- [1] https://helvia.uco.es.
- [2] Li, X.Y, F.Y Wang, and K.S Cheng. "Gravitational effects of condensate dark matter on compact stellar objects", Journal of Cosmology and Astroparticle Physics, 2012.
- [3] Suzuki, Yoichiro. "Direct WIMP Dark Matter Searches and XMASS Experiment", Quest for the Origin ofParticles and the Universe, 2013.
- [4] Li, Guojian, Huimin Wang, Qiang Wang, Yue Zhao, Zhen Wang, Jiaojiao Du, and Yonghui Ma."Structure and properties of Co-doped ZnO films prepared by thermal oxidization under a high magnetic field", Nanoscale Research Letters, 2015.
- [5] Edward Teller. "Theory of Origin of CosmicRays", Reports on Progress in Physics,01/01/1954.
- [6] Undergraduate Lecture Notes in Physics, 2013.
- [7] http://www.einstein-online.info/spotlights/light\_deflection#s ection-2.
- [8] https://en.wikipedia.org/wiki/Sun#Magnetic\_field.
- [9] Turck-Chièze, Sylvaine, and Ilídio Lopes. "Solarstellar astrophysics and dark matter", Researchin Astronomy and Astrophysics, 2012.
- [10] https://en.wikipedia.org/wiki/Sunspot.
- [11] https://www.digplanet.com.
- [12] https://pp263.itpub.net.
- [13] Astrophysics and Space Science Library, 2009.
- [14] P. A. Thomas. "A simulated tauCDM cosmologycluster catalogue: the NFW profile and the temperature-mass scaling relations", Monthly Notices of theRoyal Astronomical Society, 6/2001.
- [15] https://stuiis.cms.gre.ac.uk.
- [16] Peter Graham. "Exothermic dark matter", Physical Review D, 09/2010.
- [17] https://en.wikipedia.org/wiki/Nuclear\_magnetic\_resonance.
- [18] https://www.answers.com.
- [19] https://en.wikipedia.org/wiki/X-ray.

- [20] https://en.wikipedia.org/wiki/Gamma\_ray.
- [21] https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.11 7.121303.
- [22] https://physics.aps.org.
- [23] https://felicitysmoak.info.tm.
- [24] https://en.wikipedia.org/wiki/Photoelectric\_effect.
- [25] https://en.wikipedia.org/wiki/Hot\_cathode.
- [26] https://en.wikipedia.org/wiki/Photochemistry.
- [27] https://en.wikipedia.org/wiki/Electromagnetic\_radiation.
- [28] https://www.newikis.com.
- [29] SpringerBriefs in Physics, 2014.
- [30] https://lifesun.info.
- [31] https://en.wikipedia.org/wiki/Electrical\_resistivity\_and\_cond uctivity#Temperature\_dependence.
- [32] https://nou.edu.ng.
- [33] Millikan, R. (1914). "A Direct Determination of "h."". Physical Review.4 (1): 73–75. Bibcode: 1914PhRv....4R..73M.doi:10.1103/PhysRev.4.73.2.
- [34] Astronomy and Astrophysics Library, 2015.
- [35] Understanding Physics, 2002.

- [36] http://www.rash.seksprzygody.klodzko.pl.
- [37] S. Close, P. Colestock, L. Cox, M. Kelley, and N. Lee; "Electromagnetic pulses generated by meteoroid impacts on spacecraft", Journal of Geophysical Research, Vol. 115, A12328 (2010), doi:10.1029/2010JA015921.[1] (pdf).
- [38] Anderson, John D. Jr. (January 2001) [1984], Fundamentals of Aerodynamics(3rd ed.), McGraw-Hill Science/Engineering/Math, ISBN 0-07-237335-0.
- [39] http://jsonpedia.org.
- [40] Fan, JiJi, Andrey Katz, and Jessie Shelton. "Direct and indirect detection of dissipative dark matter", Journal of Cosmology and Astroparticle Physics, 2014.
- [41] Zbiral, Guido. "Ideas on an Alternative Cosmological World Model with Different Initial Conditions", Journal of Modern Physics, 2015.
- [42] Astrophysical Formulae, 1974.
- [43] https://en.wikipedia.org/wiki/Aurora.
- [44] Astrophysics and Space Science Library, 1974.
- [45] Güver, Tolga, Arif Emre Erkoca, Mary Hall Reno, and Ina Sarcevic. "On the capture of dark matter by neutron stars", Journal of Cosmology and Astroparticle Physics, 2014.
- [46] https://en.wikipedia.org/wiki/March\_1989\_geomagnetic\_sto rm.