# Is there "fast and slow combustion" of stars?

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The analysis of this topic is a continuation of

"The causal relation between a star and its temperature, gravity, radius and color" <u>https://www.academia.edu/18485381/The\_causal\_relation\_between\_a\_star\_and\_its\_temperature\_gravity\_radius\_and\_color\_and</u> "Why there are differences in structure of the objects in our system? " https://www.academia.edu/28066462/Why\_there\_are\_differences\_in\_structure\_

of\_the\_objects\_in\_our\_system.

The goal of the analysis is to point at the existence of real evidence that there is no matter combustion process through the radioactive disintegration of complex atoms.

The key points of this study are the number of stars in <u>the Milky Way</u> galaxy (100-400 billion  $(2.5 \times 1011 \pm 1.5 \times 1011)$ , the assessment of the star ratio in the Milky Way, the red-colored stars (type M) that make more than 76,45%, the orange-colored stars (type K) 12,1%, the yellow-colored stars (type G) 7,6%, which altogether make 96,15% of the total quantity of stars in the galaxy of Milky Way) and other stars 3,85% (Harvard spectral classification), by observing the stars inside and outside the main sequence of the Hertzsprung-Russell diagram.

The analysis is to begin with the table 1, in which masses and temperatures of some stars are given; it is showed with a few examples that stars with a similar mass do not have a similar temperature and can be one or more spectral classes far from each other, often even at the opposite ends ( $\mu$  Columbae, type O, mass 16 M of Sun, temperature 33 000 K – <u>VY Canis Majoris</u>, type M, mass 17 M of Sun, temperature 3 490 K).

The <u>stars</u> are composed of 71% of hydrogen, 27% of helium and the rest are the other elements; therefore, it seems realistic and objective to analyze stars of the same or similar masses, because the chemical compositions are similar. However, there is no indication from the mass of an object that the combustion under the same conditions provides the same or similar temperatures. With taking into consideration the fact that some smaller value as a corrective factor needs to exist, due to different layout and masses of the objects, orbiting around a star, it is all the same impossible to balance the relation, because the differences in temperature are too big. It can be ruled out with a total certainty that a bigger mass of a star at the same time means the higher temperature of the same star.

The relations of mass and temperature in the table 1 present that fact beyond any doubt.

Table 1.

	Star	Mass (M Sun)	Temperature K
1	<b>39 Leonis</b>	0,98	3.740
2	Sirius B	0,987	25.200
3	Luyten 726-8 A	1,02	2.670
4	BPM 37093	1,1	11.730
5	84 Ceti	1,168	6.356
6	Theta Sculptoris	1,25	6.395
7	Gamma Crucis	1,3	3.626
8	Zeta Leporis	1,46	9.772
9	Aldebaran	1,5	3.910
10	Hamal	1.5	4.480
11	Г Doradus	1,57	7.200
12	Fomalhaut	1,98	8.590
13	Castorα α Gem Aa	2,76	10.286
14	" A Gem Ba	2,98	8.842
15	Antares	12,4	3.400
16	E Canis Majoris	12,6	22.900
17	A Crucis al	17,8	24.000
18	" A2	15,52	28.000
19	HR 5984	10	27.000
20	Spica	10,25	22.400
21	Deneb	19	8.525
22	H Canis Majoris	19,19	15.000
23	QU Normae	43	17.000
24	M Normae	40	28.500

The observation of type M and K stars is presented in the following table, because these stars make up to 88,55% of the total quantity of stars in the Milky Way galaxy. When 7,6% of type G (yellow) stars are included in the previous quantity, there is more than 96,15% of Milky Way stars with a relatively low temperatures, ranging from 2 400 to 6 000° K. They all automatically represent those stars that could by no means combust matter fast and have a short period of existence. The rest of 3,85% cannot represent a relevant quantity of stars, upon which the hypotheses of fast matter combustion and short existence period were created. If there is a low surface temperature on a star (Betelgeuse and other type M, K and G giants), it cannot be classified in the same group as the stars with high temperatures. It is unrealistic to claim that there is the same combustion value with high and low temperatures. When masses and temperatures in those 96,15% of the total quantity of stars are related, a conclusion can be drawn that there is no mass-based combustion and neither the results, related to the combustion of stars.

If the rest of 3,85% of stars of type O, B and A (table 3) are included into the analysis, the indicators are the same as with the type M, K and G. A bigger mass does not mean the higher temperature.

	Star(zvijezde.)	Mass (M Sun)	Radius (R Sun)	Temperature K	Spectral ty
1	M typ star	0.08–0.45	$\leq 0.7$	2,400–3,700	M 76,45%
2	Mira	1,18	44.2±0.9	2918–3192	K
3	Aldebaran	1.5±0.3	44.2±0.9	3.910	М
4	Alpha Herculis	2,5	264-303	3.155-3.365	М
5	UY Scuti	7-10	$1,708 \pm 192$	3.365	М
6	VX Sagittarii	12	1,350–1,940	2,400–3,300	K
7	VY Canis Majoris	17 ± 8	$1,420 \pm 120$	~3,490	М
8	VV Cephei	18,2	1,050	3.826	K
Ð	S Persei	20	780 - 1,230	3,000–3,600	K
10	NML Cygni	~25	1,183	3,834	K
1	WOH G64	25	1,540 - 1,730	3,200 - 3,400	М

Table 2

# To look and **List of largest stars**

<u>https://en.wikipedia.org/wiki/List\_of\_hottest\_stars</u> and <u>https://en.wikipedia.org/wiki/List\_of\_brown\_dwarfs</u>

Table 3

	Star(zvijezde.)	Mass(M Sun)	Radius(R Sun)	Temperature K	Star type
	HD 149382	0,486	0,0345	56.000/3.000?	A
	PG PG 0112+104	0,5	/	30.000	WD
	Zeta Cygni B	0,6	/	12.000	А
	Procyon B	0,602	0,12	7.740	F
	HD 4628	0,70	0,749	5.829	К
	LP 145-141	0,75	/	$8.500 \pm 300$	DQ
	IK Pegasi	1,65/1,15	1,6	7.700 / 35.500	А
	Zeta Cygni A	3,05	15	4.910	G
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56 Pegasi	5,4	680	4.416	K
HD 160529	13	150-300	8.000 - 12.000	В
A Crucis α2	15,52	/	28.000	В
A Crucis α1	17,8	/	24.000	В
P Cygni	30	76	18.700	В
Eta Carinae Car B	30-80	14,3 - 23,6	37.200	0
BP Crucis	43	70	18.100	В
Eta Carinae Car A	~100 -200	60 - 800	9.430 - 35.200	0

### To look and List of the hottest stars stars

## https://en.wikipedia.org/wiki/List\_of\_hottest\_stars and https://en.wikipedia.org/wiki/List\_of\_most\_luminous\_stars#Data

Earth and Venus are the ideal examples of proving the matter melting and the processes, related to the beginning of melting an object. There are melted interiors in both of these objects, with the fact that Venus, although having lesser mass than Earth, has higher temperatures of the interior and the atmosphere as well. The presence of more numerous and more significant active volcanoes than on Earth points to that conclusion.

Matter disintegration is related to nuclear fusion and nuclear fission, which cause radioactive radiation as a byproduct. This radiation does not exist (generally or in a significant amount) in lava and magma; if it were, life on Earth would not exist. This is not some small quantity of mass that should produce radioactivity, but at least 10.111 million of cubic kilometers (km3) and this is something that cannot be unnoticed, especially when it is known there is a dislocation of melted matter inside an object. It is equally important to point out that Jupiter and Neptune emit more heat waves than they receive from Sun, which points out, beyond any doubt, that these two objects also have melted interior parts.

Melting of the interiors of Venus and Earth is conducted by tidal forces (with mass and rotation as the corrective factors), where the object closer to Sun has higher temperatures than the more distant object. On Jupiter, mass and rotation are responsible for melting and which create the forces of pressure that are strong enough to melt matter. Temperatures are the highest and the forces of pressure the strongest in the centers of planets (and stars).

It can be concluded that there is no matter combustion inside stars and other objects; there is no radioactive matter disintegration; there is no hydrogen ignition that leads to the creation of stars; finally, the age of objects cannot be determined based on their rotations, because an object is created by a constant gathering of matter with the assistance of gravitational forces. There is only the activity of atoms, produced by tidal forces and the forces of pressure. The atom activity creates heat. The higher the temperature, the lower the average density (Mercury 5, 427; Sun 1, 408 g/cm3)... (All data are gathered from Wikipedia en)

# Why Mars does not have the atmosphere like Titan or Earth?

This article is a continuation of

Why there is not one and the same atmosphere on the objects of our system? and

### What are working temperatures of elements and compounds in the Universe?.

Of course, in this work I will not deal with the question, how the atmosphere of Mars disappeared and where it went. I will leave that question to those smart people, who have been chasing ghosts and fantasies of the past for already 50 years, when people were discussing 400 canals on Mars, the Martians and their beautiful ladies with three breasts, the pyramids and faces on Mars. I will not talk about golden little cages, in which fleas from camels in the deserts of Mars were caught and held. Those who expected such topics will be disappointed, because I will talk only about hard evidence.

The minimal temperature on Mars is  $-143^{\circ}$ C, while the average and maximal one are  $-63^{\circ}$ C and  $+35^{\circ}$ C respectively. The chemical composition of its atmosphere is: carbon-dioxide 95,97%; argon 1,93%; nitrogen 1,89%; oxygen 0,146%; carbon-monoxide 0,0557%, which in total makes 99,9917% of the elements and compounds, present in its atmosphere.

(The geological composition of the Mars surface: Mars is a terrestrial planet, consisting of the minerals of silicon and oxygen, metals and other elements that usually form rocks. The plagioclase feldspar NaAlSi<sub>3</sub>O<sub>8</sub> to CaAl<sub>2</sub>Si<sub>2</sub>O<sub>8</sub>; pyroxenes are silicon-aluminium oxides with Ca, Na, Fe, Mg, Zn, Mn, Li replaced with Si and Al; hematite Fe<sub>2</sub>O<sub>3</sub>, olivine  $(Mg^{+2}, Fe^{+2})_2SiO_4$ ; Fe<sub>3</sub>O<sub>4</sub>... Wikipedia)

A lack of hydrogen and hydrogen-based compounds is a very important fact for the atmosphere of Mars, but also for Mars in general. When certain smart people realize that there can be no water without hydrogen, maybe then will they stop writing about water on Mars and stop this massive, yet futile search for the fictional water. It needs to be specially noted here that the melting point of hydrogen is -259,14°C and its boiling point is -252,87°C, which means that if there were hydrogen on Mars, it should be possible to detect it in the chemical composition of the atmosphere and surface. Earlier mentioned data rule out that possibility. If the chemical composition of Mars and its atmosphere gets "corrected", maybe water will even start flowing.

The average atmospheric pressure on the surface of Mars is 0.636 (0.4–0.87) kPa, 0.00628 atm or only 0,6% of the Earth's atmospheric pressure (101,3 kPa).

The following evidence is provided in the next image



This closeup view from NASA's Curiosity rover shows finely layered rocks, deposited by wind long ago as migrating sand dunes. Image Credit: NASA/JPL-Caltech/MSSS

If it is known that the composition of atmosphere mostly (95,97%) consists of  $CO_2$  and that  $CO_2$  freezes at -56,6°C ( $CO_2$  has the melting point of -56,6°C (its triple point at 5,1 atm) and it evaporates at -78,5°C, Wikipedia), that the minimal temperature on Mars is -143°C and having seen the image showing a rock that consists of a sequence of thin leaflike layers, it can be determined, how the processes of  $CO_2$  occur on Mars.

During night, in the region outside the polar circle,  $CO_2$  from the atmosphere gets frozen and creates a thin crust, which is covered by sand, carried around by the wind, which is constantly blowing, because of the temperature differences. Thin layers are created that way and in time, a very porous rock is created out of them, too. The frozen crust that is uncovered by sand or discovered by wind gets evaporated into atmosphere. Therefore, it can be said there is the thermodynamic cycle of  $CO_2$  on Mars. The atmosphere of  $CO_2$  on Mars is unable to improve, due to the constant removal of  $CO_2$  from the atmosphere, which takes place because of the low temperatures during night and even lower temperatures in the polar regions (-143°C). In the polar regions there is the accumulation of  $CO_2$  layers, because the temperatures are lower than the point of sublimation (-78,5°C) and melting point (-56,6°C).

We can only wait for argon (which is now present at 1,93%), nitrogen (now at 1,89%) and oxygen (now at 0,146%) to fill the atmosphere; their melting and boiling points are much below -143°C. It is not difficult to notice that, except for argon (now at 0,930%), the other two elements are the main elements in the atmosphere of Earth.

All data are gathered from Wikipedia.

# **Gravitational waves – a great discovery or a great scandal (a plagiarism)?**

It is probably very difficult to find a single person, who has not been informed of the great, globally important discovery of gravitational waves and that is the reason why it is unnecessary to give any additional links here. Gravitational waves are registered out there, somewhere far away (at the distance of 1,3 billion of light-years).

,,The gravitational force is a force by which Earth, Moon or any other massive object attracts another object towards itself. By definition, it is the weight of an object, Fgrav = m \* g'' <u>https://www.vocabulary.com/dictionary/gravity</u>

The assertion of the authors to have seen a collision of two hypothetical, scientifically unproven objects (the collision of two "black holes") indicates that "something is rotten in the state of Denmark." Why? A great discovery does not need such presentations that automatically cause suspicion and start large-scale discussions. The only possible reason could be that they are throwing dust in our eyes and covering the truth about what they have really discovered.

A new article suddenly appeared on February 25th, <u>http://phys.org/news/2016-02-pulsar-web-low-frequency-gravitational.html</u> and all of a sudden, a new change of the already new paradigm occurred again. Gravitational waves could be created by pulsars that have a fast rotation!

This utter "shift" seems to be at the core of the discovery, as well as the confirmation that these are not the gravitational waves, predicted by Einstein himself (he did not create nor did he accept the term "black hole"), but the waves emitted by every object that rotates around its axis; the faster the rotation – the more important the waves, and vice versa.

This is no Einstein anymore, this is Weitter Duckss and his texts, made in the last 12 years.

The Theory of Zadar was published in 2004. and there it is stated:

"The rotation of particles within a system, as well as the parts of a system inside the particular structures, is the weight, and is also a gravity, which unites the force of attraction, caused by the magnetic force, and the force of repulsion, which, due to the rotation, emits the waves in the direction away from the object. This is expressed the best on the astronomical objects that possess rotation (the objects without their own rotation do not emit waves); due to the atoms movement direction, synchrotron radiation appears and creates the waves of repulsion, which are influencing the neutral energy."

http://www.svemir-ipaksevrti.com/Zadarska-teorija-hrvatski2004.html

"A quote of a part of the text from the year of 2008: "… Celestial objects rotate around their axes; the rotation creates waves, which travel away from an object and in that way create repulsion forces, which prevent the objects, captured in the orbits around them, from falling onto them. Electromagnetic forces constantly direct smaller objects towards the greater, dominant object, which, due to its rotation, constantly repulses and deflects the incoming object until it gets captured in the orbit of the dominant object. That is why objects oscillate on their trajectories; electromagnetic forces of repulsion and attraction simultaneously affect them… " ". <u>http://www.svemir-ipaksevrti.com/the-Universe-</u><u>rotating.html#5b</u>

A question could be asked here: how is it possible that gravity, as a force of attraction, creates the reverse force at the same time? These waves should be moving towards the center of gravity and not away from it; therefore, there should be nothing to be measured.

It seems that this is only a too much of a hussle (even the president Obama praised the discovery) and only an attempt to disguise the next American plagiarism by creating such a great machination.

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