



[Where is everybody? Searching for life in the Universe](#)

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Questions and Answers

- Is silicon a possible substitute for carbon?

Answered

- Efforts are currently in place to investigate life outside of the solar system?

Yes, we are preparing to find biosignatures in future exoplanet observations.

- Is carbon the element that can form the most complex reactions?

Yes

- Why Mars lost its atmosphere?

Answered

- Both Venus and Mars are suitable and exist in the habitable zone, why do we concentrate on Mars researches?

Answered

- Excuse me but as we have vehicles that don't work with gasoline can we say we have life uncarbonic life?

We don't know any life that is not based on carbon. It may exist, but we start by looking to what we know.

- But aren't we assuming that the way life was born here is the only one possible?

Answered

- The large structures of silicon +H +O are too strong to react to easy compound other life structures

- Carbon can have the most complexes due to its structure and the fact that it has 4 electrons in the last orbit of atom.

- A large presence of oxygen in a planet's atmosphere a hint of the presence of life on it?

Not necessarily. There may be abiotic oxygen production. However, free oxygen in combination with other compounds associated with life (especially reducing ones) can be a hint of biological activity

- As we have vehicles that don't work with gasoline can we say we have uncarbonic life?

- Did we ever try to create life in laboratory?

No.

- You also gonna talk about the Researches on living on Mars and how far they've gone?

No.

- Will we talk about the floats and hunters that presented us Sgan?

- Question: you are not excluding possible different forms of life, using our life concept to search for it?

Answered.

- There could be organisms in other planets that may live with other type of gassius?

There may be. But, as I said, we start by looking to what we know, and we keep an open mind.

- There are some simile progression between born and development of Universe and born and development of the Earth?

There is no direct relation, except that entropy grows in both cases.

- If we were seeing Earth from a distant planet, how could we conclude for sure that Earth has life?

By looking at biosignatures, as I discussed in the talk

- Is any mathematical model involved in astrobiology, like in physics?

Answered

- What do you think about Space X plan about moving to Mars? Given the information you mentioned, How is that even possible?

Unlikely.

- Why most scientists affirm that the life that we already know in Earth is lower than a 15% of species?

This is just a statistical estimate, that implies that probably there is a lot of microscopic life that we were not able to identify yet.

- Maybe there is water in the center of Mars

- How does the size of a Planet relates with the chances of finiding live on it? Is there any condition involving gravity and the possibility to keep an athmosphere or about other facts?

Answered.

- What if life had already started on other planets but it went extict before we could see it?

Answered

- Will Mars be habitable when the sun becomes a red giant?

Answered

- Is it real possible that we could move to Mars in few years?

Answered

- Why didn't we test the life on Europa before?

Because we did not know it could have the right conditions for life, and designing and sending a space probes takes many years. We will certainly do this in the future

- Why does Mars not have a magnetic field?

Answered

- Why is water the only one compound that can sustain life?

Is the only one we know for sure.

- Probably, whit space elevators

- Can the Drake equation describe accurately the possibility of the presence of other civilizations in the Universe?

It is just a statistical estimate of mostly unknown factors.

- If many organism live unless light, the light is not important for the life, or not?

Probably it is not indispensable, as long as there are other forms of energy available

- Did we ever try to create life in laboratory?

- What do you think about the Elon Musk's project to go to Mars in a few years?

- Nowadays there is the problem of global warming, is there the possibility for Earth to reach the conditions of venus? Is the risk so big?

Answered

- Are there experiments looking for life on Europa?

Answered

Cold Scorpion - Since we look at planets light-years away, is it possible that life may already exist on those planets, but we are not able to see it because we are looking at their long past?

Answered

- From the point of view of the research, is it easier to find intelligent life or basic life?

Finding intelligent life, in principle, would be easier, because they could just signal their presence in a clear way, by saying "hello, we are here". But it is also less probable. Microscopic life is more likely (but more difficult to find).

- Why did life originated only once from inorganic matter on Earth and we can not see any replies of this (from non-living beings)?

Actually, we don't know if life originated only once on Earth. We know that existing life descends from a common ancestor, but in principle it is possible that there were other independent origins that did not leave any descendants.

- Why didn't we test life on Europa before? When did we know about the possibility of life on Europa?

- If we were seeing Earth from a distant planet, how could we conclude for sure that Earth has life?

- Is it real possible that we could move to Mars in few years?

- Why should they exist?

- Why exactly the size of a planet matters when searching for life?

- How do we find these planets out of solar system and also find out whether they're habitable or not???

Answered

- Is it possible that we could move to Mars in few years?

Answered

- Finding? I mean... telescopes?

- I know we can use the frequencies and light actually to find out how far the planets are but about them being habitable... that's a question to me

- Floats and Hunters

- How do we evaluate the probability that some life can communicate with us?

- How can we explain "Wow!" signal?

There is no accepted explanation. But it is difficult to explain something that does not repeat. However, there are many examples of similar signals that we can in fact explain (space debris, manmade signals, etc)

- How do you convince people to put money into astrobiology research?

Answered

- How can we study the spectre of the planets and maybe find life?

Answered

- Is it possible or likely to find non-carbon based life in exoplanets?

Answered

- Why Mars doesn't have magnetic field?

Answered

- Why does it have no magnetic field?

Answered

- How do we know the internal structure of other planets?

Answered

- So, could we put germs from Earth (like tardigrade) in dust of the surface of Mars or something like that to see how they adapt to it and if they survive? Thanks

Answered

- In that way we could see and observe if life on Mars and in its dust it's actually possible.

- How do we know how much water there is on other moons?

Answered

- Don't we need to be careful to not contaminate other planets with terrestrial microorganisms, when we send some rover to another planet?

Answered

- Where the internal energy of Europa comes from exactly?

Answered

- Wouldn't seeking life on Mars' underground destroy its habitat and ultimately kill it?

Answered

- Is it possible or likely to find non-carbon based life in exoplanets?

- What is the possibility for life to develop in a civilization with the ability to communicate?