Disclosure

of things evolutionists don't want you to know

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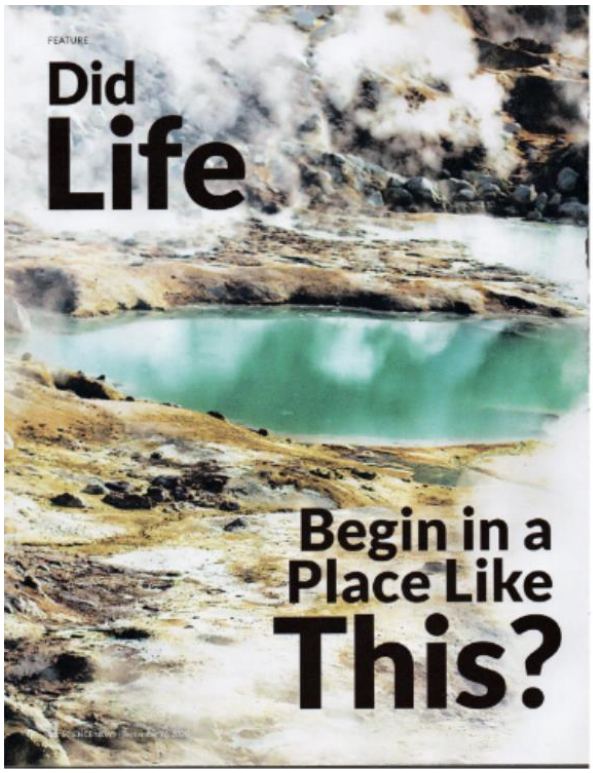
Is The Origin of Life in Hot Water?

Did life on Earth begin in hostile hot springs?

Despite what you were probably taught in school, there is no plausible scientific explanation for how life began.

Science News might have led you to believe that life began in hot springs.



> David Deamer, a biophysicist at UC Santa Cruz, has spent four and a half decades exploring how life on our planet may have begun. He started out studying lipids, oily molecules that make up the membranes surrounding cells. Deamer, a big proponent of hot springs as the source of life's start, has shown that conditions at terrestrial hot springs can produce bubblelike vesicles, with an outer layer made up of lipids. Such structures may have been the ancestral precursors of modern-day cells (*SN: 7/3/10, p. 22*). [1]

After more than 40 years studying the origin of life, he must certainly know what he is talking about. Life must have begun in a hot, wet place. But wait!

> Nicholas Hud, a chemist at Georgia Tech in Atlanta, studies the origins of life from a slightly different perspective: He explores how DNA and RNA nucleotides originated. He agrees that molecules are more likely to link together by condensation reactions on land, where wet-dry cycles can occur, than in the ocean. These reactions produce water; the formation of such a chemical bond isn't energetically favorable when there's already a lot of water around. "The best place to form that is in a hot, dry place," Hud says. "The worst place to form it is in a wet, hot place." [2]

So, life had to begin in a hot wet place that was dry. ☺

> To Deamer, there are big barriers to putting life's pieces together near underwater vents: The vastness of the ocean would dilute molecules so they wouldn't be concentrated

[1] Jack J. Lee, *Science News*, September 26, 2020, "Did Life Begin in a Place Like This?", pp. 22-26, https://www.sciencenews.org/article/life-earth-origins-hostile-hot-springs-microbes

[2] *ibid.*

enough to drive chemical reactions. Also, there are "no wet-dry cycles underwater." In his view, repeated evaporation is needed to pull together enough molecules to bump into each other and react to form longer chains. Plus, unlike a hot spring's freshwater, salty ocean water inhibits the formation of membranes and reactions that link together molecules, he says.

However, Deamer's hot springs theory has its critics as well. DNA and RNA strands are composed of alternating phosphate and sugar molecules, but sugars "are profoundly unstable in hot spring environments," says David Des Marais, an astrobiologist at NASA's Ames Research Center. [3]

The *Science News* article is full of reasons why life could not have originated on land, and reasons why it could not have originated in the water. You can read the article for yourself. The point is, there is no place on Earth where life could have originated, so it had to have originated someplace else.

As researchers study and debate where and how life on Earth first ignited, their findings offer an important bonus. Understanding the origins of life on this planet could offer hints about where to search for life elsewhere, says Natalie Batalha, an astrophysicist at the University of California, Santa Cruz. "It has very significant implications for the future of space exploration." [4]

If they had discovered how life began on Earth, then their findings would have been useful in a search for life elsewhere—but all they have found are places where life could not have begun. Therefore, their findings really tell where not to look!

(Since scientists can't find an explanation for how life began on Earth, and need to search for the origin of life elsewhere, creationists might offer hints about where to search for the origin of life elsewhere; perhaps in a book—but we won't.) ☺

If Not Here ...

The *Science News* article suggested looking for life elsewhere. Could this notion have been inspired by the discovery of phosphine gas on Venus which they reported just a few days earlier? Of course it was; and so was the *New Scientist* cover story which appeared almost simultaneously.

This month's Evolution in the News column, *Life on Venus*, addresses in detail the news report that started it all. The article you are reading now addresses the reaction to that report.

So far, we've looked at what *Science News* said. Here's what *New Scientist* had to say about the origin of life on other planets. They began their article by dismissing life on Mars.

The Red Planet was thrust into the limelight in 1996 when scientists said they had discovered evidence for fossilised life in a Martian meteorite called ALH84001 found in Antarctica. … Today, scientists are less sure about ALH84001 as evidence for life. And while we now think that Mars was once habitable, current prospects for life there are slim. So Mars has started to lose its shine. The phosphine discovery has many wondering if we might see history repeat. [5]

We were sure there wasn't any evidence for fossilized life on ALH84001 in 1996. [6] We expect

[3] *ibid.*
[4] *ibid.*

[5] Jonathan O'Callaghan, *New Scientist*, September 2020, "Missions to confirm signs of life on Venus are already in the works", https://www.newscientist.com/article/mg24833024-200-missions-to-confirm-signs-of-life-on-venus-are-already-in-the-works/

[6] *Disclosure*, November, 1996, "That's One Small Step for a Rock-One Giant Leap of Faith", http://scienceagainstevolution.info/v1i2f.htm, and *Disclosure*, January, 1997, "Martian Meteorite Update", http://scienceagainstevolution.info/v1i4n.htm

history to repeat when it comes to Venus, too.

> "We invested billions of dollars in looking for life on Mars because of that discovery [ALH84001]," says Sanjay Limaye at the University of Wisconsin-Madison. "So I wouldn't be surprised at all if we see a similar trajectory here from this initial finding [of phosphine on Venus]." [7]

Pardon us for being cynical, but is the university looking for life, or funding? Would they really go on a wild goose chase to Venus if they didn't expect to find a goose there? Maybe so, if the price was right.

Molecules Associated with Life

Water and carbon dioxide are molecules that are associated with life. Scientists sometimes get excited when they discover indications of water or carbon dioxide on moons or planets—but those molecules don't prove there is life there. In fact,

> Until this announcement, phosphine hadn't been on many people's radar as a biomarker. "There are 16,367 molecules associated with life, by our latest count," says Clara Sousa-Silva at the Massachusetts Institute of Technology, a co-author on the phosphine discovery paper who has led much of the work on phosphine as a biomarker. "No one was looking for phosphine."

This brings up the question, "How many of those 16,367 molecules should one have to find for it to be sufficient evidence for life?"

> When Sousa-Silva was alerted to the presence of phosphine on Venus, however, she and her colleagues worked to find a possible source. After exhausting all options, they concluded it must either be produced on Venus by an unknown chemical process, or life. [8]

So, the phosphine was produced either by life or non-life. If I had a PhD, I might have thought of that. ☺

The *New Scientist* article goes on to describe several future space exploration projects, and then concludes with these words:

> In the nearer term, there are plausible routes to follow up the phosphine finding, and even if a biological source turns out to be unlikely – like with a certain Martian meteorite – the prospect of an era of Venus exploration spurred on by the discovery has many supporters, life or no life.
>
> "If we still haven't sent anything to Venus in four or five years, or even considered sending anything, it will have been a waste," says Paul Byrne, a planetary scientist at North Carolina State University. [9]

We are among the supporters of Venus exploration. We support science. Unfortunately, it is often necessary to pander to people who aren't willing to fund research unless they think it will prove that life originated by chance. The dishonesty of that approach makes us uncomfortable; but that's the world we live in.

Evolution in the News

Life on Venus

Last month, the Internet was abuzz with reports of life spotted on Venus.

As we begin our 25th year of publishing *Disclosure*, it is appropriate to thank all the readers who send tips and questions about evolution in the news to us at Pogge@ScienceAgainstEvolution.info. It is like having a research staff of several hundred people. Keep up the good work because sometimes you alert us to stories we haven't seen.

Last month, there were more than a dozen stories [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] in major

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[7] Jonathan O'Callaghan, *New Scientist*, September 2020, "Missions to confirm signs of life on Venus are already in the works", https://www.newscientist.com/article/mg24833024-200-missions-to-confirm-signs-of-life-on-venus-are-already-in-the-works/

[8] *ibid.*

[9] *ibid.*

[10] https://www.usatoday.com/story/news/nation/2020/09/14/life-venus-astronomers-see-phosphine-hint-life-clouds-venus/5793706002/

[11] https://www.foxnews.com/science/nasa-chief-says-venus-is-one-stop-in-our-search-for-life

[12] https://www.reuters.com/article/space-exploration-venus-int-idUSKBN2652GI

[13] https://www.cbsnews.com/news/venus-life-phosiphine-gas-scientists/

[14] https://www.wsj.com/articles/is-there-life-on-venus-scientists-say-maybe-11600130963

[15] https://www.msn.com/en-us/news/technology/possible-sign-of-life-on-venus-stirs-up-heated-debate/ar-BB191n86

[16] https://pjmedia.com/columns/bryan-preston/2020/09/14/is-there-a-sign-of-life-on-venus-maybe-is-better-than-a-hard-no-n930949

[17] https://www.cnet.com/news/the-search-for-alien-life-on-venus-is-getting-a-new-funding-boost/

[18] https://www.washingtonpost.com/technology/2020/09/14/venus-life-evidence/

[19] https://www.nytimes.com/2020/09/14/science/venus-

news outlets about life on Venus, so they were hard to miss. They were all modified versions of a press release from ESO posted September 14, 2020. ESO modestly claims,

> ESO, the European Southern Observatory, is the foremost intergovernmental astronomy organisation in Europe and the world's most productive astronomical observatory. ESO provides state-of-the-art research facilities to astronomers and is supported by Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, Sweden, Switzerland and the United Kingdom, along with the host state of Chile. Several other countries have expressed an interest in membership. [23]

We didn't get the press release (which means we weren't told what to think about it) so we had to read the research paper to see what it actually said.

The article is about spectral analysis of light coming from Venus which seems to indicate the presence of more phosphine gas (PH_3) than scientists expected to see. Since they don't know where it came from, maybe there is life on Venus! Here's how it began:

> **Discussion**
>
> If no known chemical process can explain PH_3 within the upper-atmosphere of Venus, then it must be produced by a process not previously considered plausible for Venusian conditions. This could be unknown photochemistry or geochemistry, or possibly life. Information is lacking – as an example, the photochemistry of Venusian cloud droplets is almost completely unknown. Hence a possible droplet-phase photochemical source for PH_3 must be considered (even though phosphine is oxidised by sulphuric acid). Questions of why hypothetical organisms on Venus might make phosphine are also highly speculative (see SI: PH_3 and hypotheses on Venusian life). [24]

Could they pack any more weasel-words into that introduction? Probably not.

Let's look into the report a little more closely. The results are based on spectral analysis. We will explain spectral analysis shortly. For now, all you need to know is that spectral analysis is a reliable way to determine what chemicals are present in something simply by looking at it.

> **Results**
>
> The PH_3 1-0 rotational transition at 1.123 mm wavelength was initially sought with the James Clerk Maxwell Telescope (JCMT), in observations of Venus over 5 mornings in June 2017. The single-point spectra cover the whole planet (limb down-weighted by ~50% within the telescope beam). Absorption lines from the cloud decks were sought against the quasi-continuum created by overlapping broad emission features from the deeper, opaque atmosphere.
>
> …
>
> We thus sought confirmation of the same transition, with independent technology and improved signal-to-noise, using the Atacama Large Millimetre/submillimetre Array (ALMA) in March 2019.
>
> …
>
> We are unable to find another chemical species (known in current databases) besides PH_3 that can explain the observed features. We conclude that the candidate detection of phosphine is robust, for four main reasons. Firstly, the absorption has been seen, at comparable line depth, with two independent facilities; secondly, line-measurements are consistent under varied and independent processing methods; thirdly, overlap of spectra from the two facilities shows no other such consistent negative features; and fourthly, there is no other known reasonable candidate-transition for the absorption other than phosphine. [25]

The likely presence of phosphine gas was first detected three years ago by scientists using the James Clerk Maxwell Telescope. The ESO confirmed those results last year using their ALMA telescope (which ESO modestly claims is much better). This is real science. One scientist discovers something, and other scientists do different experiments to confirm the discovery. We can be highly confident that there is phosphine gas on Venus.

Spectral Analysis

The phosphine gas was detected using spectral analysis, so let's explain the process for those of you who were educated in American public schools.

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life-clouds.html

[20] https://www.npr.org/2020/09/14/912619891/a-possible-sign-of-life-right-next-door-to-earth-on-venus

[21] https://www.sciencenews.org/article/phosphine-gas-found-venus-atmosphere-possible-sign-life

[22] https://www.discovermagazine.com/planet-earth/the-curious-question-of-life-on-venus

[23] https://www.eso.org/public/about-eso/

[24] https://www.eso.org/public/archives/releases/sciencepapers/eso2015/eso2015a.pdf

[25] *ibid.*

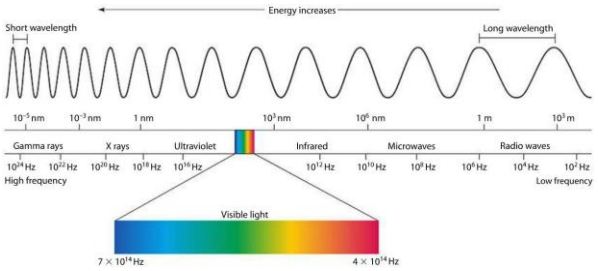
"Frequency" is a measure of how often something vibrates. On a guitar, you use a pick to press a string down until the pick slides off the string. Since the string is stretched down, out of place, it naturally springs back up to its natural position; but since the string has some momentum, it overshoots too high and stretches the string, which pulls the string back down. The up and down cycle of the string creates a wave in the air just like a wave on the ocean.

The frequency of the sound is measured in cycles per second. For convenience, the term Hertz (abbreviated Hz) stands for cycles per second. One kilohertz (1 KHz) is one thousand cycles per second. One megahertz (1 MHz) is one million cycles per second, and so on.

"Wavelength" is the distance between crests in the cycle of a wave. There is an inverse relationship between frequency and wavelength because the speed at which the wave travels is determined by the medium (air, water, glass, or vacuum) it is moving through. Since the speed of the wave is determined by the medium, the more cycles there are, the closer they have to be to each other. It is just like evenly spaced cars all going the same speed on the freeway. The more cars there are, the closer they have to be to each other.

You don't have to be much of a musician to recognize whether a particular note was played by a flute or a saxophone. Even though the fundamental pitch is the same, they sound different. That's because the flute produces a sound consisting mostly of a single frequency. The saxophone produces the primary frequency plus some harmonics.

In the same way, scientists can use light to determine the presence of a chemical by looking at it from a distance. The light looks as different as the sound of a flute is from the sound of a saxophone. Just as your ear can tell what instrument is being played by doing a spectral analysis of the sound the instrument produces, a telescope (and appropriate signal processing) can tell what gas is present by doing a spectral analysis of the light. The spectrum (range) of electromagnetic waves (light waves, radio waves, and X-rays) is divided as shown in this picture. [26]



Your eye (and brain) can tell a red apple from a green apple (unless you are color-blind) by analyzing the light coming from it in the 600-nanometer range. The ESO analyzed the light coming from Venus in the 1.123-millimeter (1.123×10^6 nanometer) range, which is near the arbitrary dividing line between infrared light and microwaves. The light looked like it was coming from phosphine gas, and it probably was.

Others Weigh In

If I asked you to close your eyes and hold out your hands, and I put a golf ball in one of your hands, and a ping pong ball in the other, you could easily tell which hand was holding the golf ball because it has more mass, so it feels heavier. In the same way, a mass spectrometer can identify molecules by weight.

Forty-two years ago, NASA sent a probe into the atmosphere of Venus to measure the gasses there using a mass spectrometer. That data is still in a database somewhere.

> "There was some controversy in terms of the veracity of the signal [from the telescopes which recently detected phosphine on Venus], and I was inspired from that to look for other evidence that could support that detection," says Rakesh Mogul at California State Polytechnic University, Pomona. He and his colleagues re-examined data from NASA's Pioneer Venus Multiprobe, which measured the masses of various compounds as it sank into the crushing Venusian atmosphere in 1978.
>
> Mogul and his colleagues found previously unreported signs of phosphine consistent with the levels that Greaves's team spotted from Earth, along with other chemical compounds that are expected to form as phosphine breaks down. [27]

There are some caveats. In this case, it is more like trying to tell a volleyball from a soccer ball, than telling a golf ball from a ping pong ball,

[26] https://www.autodesk.com/products/eagle/blog/electromagnetic-wireless-electronic-basics/

[27] Leah Crane, *New Scientist*, 2 October 2020, "NASA may have found signs of life on Venus in 1978 without realizing", https://www.newscientist.com/article/2256078-nasa-may-have-found-signs-of-life-on-venus-in-1978-without-realising/

by weight.

> Data like this, from a mass spectrometer, is notoriously difficult to interpret, so this finding isn't completely definitive, says David Grinspoon at the Planetary Science Institute in Arizona. "I'm still not 100 per cent ready to declare there's definitely phosphine in the clouds of Venus, but it's more strongly indicated now than it was before there was this second hint." [28]

If it had been easy to spot the presence of phosphine, NASA would have noticed it 42 years ago. But, since they weren't looking for it then, it is easy to see how they missed it.

The data from two telescopes and one mass spectrometer all indicate approximately the same amount of phosphine on Venus, so we can be pretty sure that's how much is there. That's how real science works.

The Problem

The problem is that the accepted models said there should not be that much phosphine gas on Venus. Either the measurements or the model must be wrong. The measurements were done by three different groups of scientists, using two different kinds of telescopes and a mass spectrometer, and all three measurements agreed. The measurements are probably right, so the model must be wrong.

It isn't unusual for models to be wrong. You can't trust a model until it has been verified experimentally. Politicians don't understand this, so they trust unverified models about such things as climate change, spread of disease, and effectiveness of masks (if the models justify doing what they want to do.)

When a model is wrong, the appropriate thing to do is to figure out why it is wrong, and fix it. The first step in the process is to propose a change to the model, and try to verify the corrected model.

Phosphine Lifetime

In this case, the model predicts how much phosphine should be produced by natural processes on Venus, and how long the phosphine should last before it disintegrates, dissipates, or reacts to form something else. Knowing the production rate and the destruction rate, one can calculate how long it will take for the two opposite processes to reach equilibrium (that is, how long it will take before the rate of production equals the rate of destruction) and how much phosphine there will be (measured in parts per billion, ppb) when equilibrium is reached.

> The lifetime of phosphine on Venus is key for understanding production rates that would lead to accumulation of few-ppb concentrations. This lifetime will be much longer than on Earth, whose atmosphere contains substantial molecular oxygen and its photochemically-generated radicals. The lifetime above 80 km on Venus (in the mesosphere) is consistently predicted by models to be $<10^3$ seconds [less than one thousand seconds, about 17 minutes], primarily due to high concentrations of radicals that react with, and destroy, PH_3. Near the atmosphere's base, estimated lifetime is $\sim10^8$ seconds [one hundred million seconds, about 3 years] due to thermal-decomposition (collisional-destruction) mechanisms. Lifetimes are very poorly constrained at intermediate altitudes (<80 km), being dependent on abundances of trace radical species, especially chlorine. These lifetimes are uncertain by orders-of-magnitude, but are substantially longer than the time for PH_3 to be mixed from the surface to 80 km ($< 10^3$ years). The lifetime of phosphine in the atmosphere is thus no longer than 10^3 [one thousand] years, either because it is destroyed more quickly or because it is transported to a region where it is rapidly destroyed. The SI [supplemental information] (including Figs S7-12; Tables S2-3) details our methods. [29]

In other words, phosphine gas (PH_3) doesn't last long in the upper part of Venus' atmosphere. After about 17 minutes it reacts with other chemicals and is destroyed. The surface of Venus is very hot, so phosphine gas only lasts about 3 years near the surface before heat breaks it down (according to the model). In the middle of the atmosphere, the lifetime of phosphine gas is "uncertain by orders-of-magnitude." (One order of magnitude is 10 times. Two orders of magnitude is 100 times. Three orders of magnitude is 1,000 times.) So, their estimates could be off by 10 times, or 100 times, or 1,000 times, or more. They really have no clue. Their model is based on guesses.

They measured about 10 parts per billion of phosphine gas. Where did it come from?

> We estimate the out-gassing flux of PH_3 needed to maintain ~10 ppb levels, taking the column of phosphine derived from observations and dividing this by the chemical lifetime of phosphine in Venus' atmosphere (Figure 5). The total outgassing-flux necessary to explain

[28] *ibid.*

[29] https://www.eso.org/public/archives/releases/sciencepapers/eso2015/eso2015a.pdf

> ~10 ppb of PH_3 is ~10^6-10^7 molecules cm^{-2} s^{-1} (shorter lifetimes would lead to higher flux requirements). Photochemically-driven reactions in Venus' atmosphere cannot produce phosphine at this rate. To generate PH_3 from oxidized P-species, photochemically-generated radicals have to reduce the phosphorus by abstracting oxygen and adding hydrogen – requiring reactions predominantly with H, but also with O and OH radicals. Hydrogen-radicals are rare in Venus' atmosphere because of low concentrations of potential hydrogen-sources (species such as H_2O, H_2S that are UV-photolyzed to produce H radicals). We model a network of forward-reactions (i.e. from oxidized P-species to PH_3), not only as a conservative maximum-possible production rate for PH_3, but also because many of the back-reaction rates are not known. We find the reaction rates of H radicals with oxidized phosphorus species are too slow by factors of 10^4-10^6 under the temperatures and concentrations in the Venusian atmosphere (Figure 5). [30]

You don't have to understand much chemistry to see that their models are based on wild guesses. Let's look back at the beginning of the discussion again:

> **Discussion**
>
> If no known chemical process can explain PH_3 within the upper-atmosphere of Venus, then it must be produced by a process not previously considered plausible for Venusian conditions. This could be unknown photochemistry or geochemistry, or possibly life. Information is lacking – as an example, the photochemistry of Venusian cloud droplets is almost completely unknown. Hence a possible droplet-phase photochemical source for PH_3 must be considered (even though phosphine is oxidised by sulphuric acid). Questions of why hypothetical organisms on Venus might make phosphine are also highly speculative (see SI: PH_3 and hypotheses on Venusian life). [31]

The measurements are scientific, but the conclusions are not. The measurements have been confirmed. The conclusions have not.

There is "no known chemical process" which can explain their observations. It must be the result of a "process not previously considered plausible." There must have been a good reason why it wasn't previously considered plausible; but that doesn't seem to matter anymore. There isn't any reason now to believe that what was once implausible is now plausible, other than that a straw must be grasped. A conclusion must be reached even though "information is lacking" and the explanation for the observation is still "completely unknown." Maybe there are some hypothetical living organisms which produced the phosphine, but that is "highly speculative."

Despite this, more than a dozen news outlets reported the possible discovery of life on Venus. It is fake news.

As we told you before, because of these reports, Rakesh Mogul went back to the 1978 mass spectrometer data. He wrote,

> To conclude, this re-evaluation of Venus' mass spectra shows the detection of atomic phosphorous as a fragmentation product from a neutral gas. Moreover, the spectra show a tantalizing possibility for the presence of PH_3, along with its associated fragments, and singly deuterated parent ion. While intensities of the peaks are low, they are perhaps consistent with the ~20 ppb abundances reported [from the telescope observations] by Greaves *et al.* Together, the tentative assignments suggest that the reported abundances of H_2S (from mass spectra) across Venus' atmosphere may actually be PH_3; and that atomic sulfur is derived from SO_2. These total interpretations also lend support to the presence of chemicals potentially out of equilibrium in Venus' clouds (e.g., PH_3, O_2, CH_4, C_3H_4, NO, H_2, and H_2O_2). We believe this to be an indication of chemistries not yet discovered, and/or chemistries potentially favorable for life. Looking ahead, and to better understand the potential for disequilibria in the clouds, we require a sustained approach for the exploration of Venus. [32]

The model of the atmosphere of Venus is known to be wrong because it does not correctly predict the amount of phosphine gas that was actually measured. The model is wrong because of "chemistries not yet discovered." That is, their model does not accurately represent the chemical reactions which produce phosphine, or it does not accurately represent the chemical reactions which destroy phosphine, or it doesn't accurately represent either. They simply don't know why their model is wrong. They just know more money is needed for the exploration of Venus.

To say that the undiscovered chemical reactions are the result of a biological process is simply speculation. To believe that evolution is the origin of the unknown biological process is speculation squared.

[30] *ibid.*
[31] *ibid.*
[32] Rakesh Mogul, *et al*., 27 September 2020, "Is Phosphine in the Mass Spectra from Venus' Clouds?", https://arxiv.org/abs/2009.12758

by Lothar Janetzko

Christ Created – Creation vs. Evolution: An Index to Topics

http://www.christcreated.com/

A reference for defending the Bible's account of origins

The website review for this month looks at a site that seeks to "find evidence defending the Bible's account of origins, problems with evolution, and answers to skeptics' claims."

The home page of the site provides tab links to the following topics: 1) Home; 2) Indexes; 3) About; and 4) Contact. On this page you will also find a search box that allows you to find information of interest.

It is on the About web page that you learn about the goal of the site and how the author of the site has chosen to present his arguments for defending the Bible's account of origins. His approach is to present arguments in a "dictionary format." By dictionary format he intends arguments to be stated in a one-sentence format and indexed on the website. Each argument has a basic explanation of what it means and the reasons for it. His goal for the website, which is still in progress, is to provide references for further research for his arguments from books, technical journals and "respectable educational web pages." His goal is also to present objections and rebuttals in a debate-like layout.

On the Home page of the site you will find "Creation vs. Evolution: An Index to Topics" and "Complete Index to Arguments." You can browse the indexes to evidence and claims and review Creation Evidence and Evolution's Claims. For these indexes you can review information about: 1) Age; 2) Biology; 3) Fossils; 4) Philosophy; 5) The Bible; 6) Universe; and 7) Big Bang. Also at the bottom of the Home page you will also find Quick Links and a place to sign up for a Reference Newsletter to receive "a couple of evidences for creation (or against evolution), and a couple of answers to evolution's claims against the Bible."

The Index page allows the website reader different ways of looking at creation vs. evolution. One approach is to view the Complete Index where you can view the website's complete index of arguments arranged in a tree-like structure. Another way is to view the Standard Index which allows you to view a summary of the arguments of the site in a blog-like fashion. A third way of navigating this website is to use the Common Sense Index. The description for this index states "You don't need to be a scientist to realize the problems with evolution. Common sense tells us that evolution is not possible and that the Bible's account of origins is true."

Beside the three different indexes found on the Index page, you will also find links to Reference and Dictionary. The Dictionary allows you to look up terms used in the creation/evolution debate and attempts to make them understandable to a lay person.

There is much to explore on this website and the various indexes allow you to find topics of interest easily. The website navigation features scale nicely depending on the size of the browser window you use to view the site.