

Does the Sun's core consist of iron instead of hydrogen?

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Abstract

For years, scientists have assumed that the sun is an enormous mass of hydrogen. Galileo was the first to propose that the sun is filled with gas. But Dr. Oliver Manuel says iron, not hydrogen, is the sun's most abundant element. IF his suggestion is true then it may imply that the source of solar energy is different of the presently held theory of hydrogen fusion.

Introduction

This article is summary of discussion via researchgate.net. The topic is concerning Dr. Oliver Manuel's hypothesis that the core of the sun consists mainly of iron rather than hydrogen. In principle, Dr. Manuel suggests that the hydrogen-filled sun hypothesis is obsolete. See: <http://arxiv.org/ftp/astro-ph/papers/0410/0410569.pdf>

Reference to Dr. Oliver Manuel's papers:

"An iron-rich Sun and its source of energy," Proceedings of the 8th International Symposium on Nuclei in the Cosmos, Vancouver, BC, Canada, 19-23 July 2004 (Manuscript submitted for publication)
<http://www.omatumr.com/abstracts2005/IronRichSun.pdf>

Answers:

[1] [Johannes Gruenwald](#)

But if this would be the case, I would assume that you would see massive iron lines in the spectrum of the sun. Furthermore, if this was true, the mass of the sun would be much higher and the orbits of the planets would be much smaller - this can be disproven by simple mechanical calculations.

So, no I don't agree with such suggestions.

[2] [Oliver Manuel](#)

Precise experimental data from the world's top research facilities* leave no doubt:

The most abundant element in the interior of the Sun is iron (Fe), not hydrogen (H).

Fred Hoyle's autobiography, "Home Is Where the Wind Blows," admits on pp. 153-154, that mainstream astronomers and astrophysicists all believed:

1. The interior of the Sun was mostly iron (Fe) in 1945
2. The interior of the Sun was mostly hydrogen in 1946 . . .

and they all unanimously changed their opinions without discussion or debate !

That was the birth of the lock-step, standard, "consensus" models that destroyed the integrity of science and eventually surfaced as Climategate in November 2009.

*Nine pages of precise experimental data that falsify the standard solar model are on pages 19-27 of my autobiography.

[3] **Oliver Manuel**

Here is the link to Fred Hoyle's autobiography:

<http://www.amazon.com/gp/aw/d/093570227X>

[4] **Victor Christianto**

Dear Dr. Manuel, thank you for your explanation. Do you find massive iron lines in the spectrum of the sun? Best wishes

[5] **Oliver Manuel**

Victor,

Fred Hoyle noted on page 153 of his autobiography that the spectrum of sunlight is "chock-a-block with lines of iron" [Fred Hoyle's autobiography, "Home Is Where the Wind Blows"]

<http://www.amazon.com/gp/aw/d/093570227X>

That is why Fred Hoyle, Sir Arthur Eddington and other mainstream astronomers and astrophysicists believed the interior of the Sun was mostly iron until 1946.

Describing a meeting with Sir Arthur Eddington in 1940, Hoyle says:

1. "We both believed that the Sun was made mostly of iron, two parts iron to one part of hydrogen, more or less. The spectrum of sunlight, chock-a-block with lines of iron, had made this belief seem natural to astronomers for more than fifty years." . . . [p. 153],
2. "The high-iron solution continued to reign supreme in the interim (at any rate, in the astronomical circles to which I was privy) until after the Second World War," . . .
3. "when I was able to show, to my surprise, that the high-hydrogen, low iron solution was to be preferred for the interiors as well as for the atmospheres." [pp. 153-154]
4. "My paper on the matter confounded a doctrine of (Raymond) Lyttleton, who used to say there are three stages in the acceptance by the world of a new idea.
 - _ a. The idea is nonsense.
 - _ b. Somebody thought of it before you did.
 - _ c. We believed it all the time.

This matter of the high-hydrogen solution was the only occasion, in my experience, when the first and

second of these stages were missing.” [p. 154].

The above information was given to the Congressional Space Science & Technology Committee staff on 17 July 2013:

https://dl.dropboxusercontent.com/u/10640850/Creator_Destroyer_Sustainer_of_Life.pdf

[6] **Johannes Gruenwald**

I am afraid that quotations from some scientists are not sufficient experimental or theoretical evidence.

Show me some spectrum of the sun (which is very easy to obtain) with huge Fe lines and I will start rethinking my views immediately. Or show me a proper calculation of a sun made of iron (the mass of it, that is) - which is also very easy to be done and from that and the law of gravity calculate the orbits of the planet and compare that to the actually measured ones...

[7] **Oliver Manuel**

Johannes,

Ordinary textbooks of astronomy used to have line spectra of sunlight with the lines from various elements identified. You may have to find an older textbook if that information has now been removed from newer textbooks.

1. Many ordinary welders instinctively know that light from the Sun is like that emitted from a "red hot" piece of iron: A chariot of fire moving across the heaven each day.
2. Two of the founders of modern astronomy and astrophysics, Fred Hoyle and Arthur Eddington, were quoted above as agreeing that sunlight is *"chock-a-block with lines of iron."*
3. Nine pages of precise experimental data on pages 19-27 of my biography (See attachment) show the interior of the Sun is mostly iron and hydrogen is a waste product in the photosphere.

[8] **Oliver Manuel**

Johannes: "Show me some spectrum of the sun (which is very easy to obtain) with huge Fe lines and I will start rethinking my views immediately."

Here are visible emission lines of iron (Fe) in sunlight.

https://dl.dropboxusercontent.com/u/10640850/Visible_iron_emission_lines_in_sunlight.pdf

Here is an image of a solar eruption recorded in emission lines from highly ionized iron.

http://trace.lmsal.com/POD/movies/T171_000828.avi

[9] **Johannes Gruenwald**

First of all, your spectrum is a spectrum of the emission lines of iron - so there should be all the iron lines (naturally) - compare that to the sun's spectrum and you will see that this is totally different. Also when I use the spectrometer from my own lab, I don't see any iron lines in the sun light.

Secondly as a chemisist you should know that every black body radiates the same wavelength at the same temperature - the colour is independent of the material (as long as the emissivity is the same).

However, I am not sure that every ordinary welder knows that...

Thirdly, your link does not even have 27 pages and on page 19 ff. there are just some citations of works which mostly (as far as I saw from the title don't even have something to do with iron content of the sun).

So as long as you cannot disprove my points (and they are REALLY basic physics points) by reproducible measurements and/or calculations, I can assure you that a sun made of iron is just phantasy (at the best). - Just make the simple calculations I mentioned above (should take you about 10 min).

[10] [Oliver Manuel](#)

Johannes,

Did you not find time to watch the video of a solar eruption recorded in UV light **emitted** from highly ionized iron (Fe)?

http://trace.lmsal.com/POD/movies/T171_000828.avi

The TRACE satellite recorded those images on 28 August 2000 using a 171 Å filter. This filter is specifically sensitive to light **emissions** from iron ions, Fe IX and FeX.

If you prefer to consider only the Sun's major dark (Fraunhofer) absorption lines for iron (Fe), see the list at: http://en.wikipedia.org/wiki/Fraunhofer_lines:

516.891 nm

495.761 nm

466.814 nm

438.355 nm

430.790 nm

382.044 nm

358.121 nm

302.108 nm

Nine pages of precise experimental data on pages 19-27 of my biography (See attachment) show the interior of the Sun is mostly iron and hydrogen is a waste product in the photosphere. The page numbers are given at the bottom of each page.

[11] [Johannes Gruenwald](#)

So, there are several Fe lines in the range of 171 Angstrom, the problem is that if you use a filter in that range - these lines are blocked (also basic optics).

Furthermore it doesn't matter whether you look at the emission or absorption lines as they are identical...

So, if you cannot really disprove my simple arguments, I see no more value in discussing such a matter any further...

[12] [M.A. P. Rao](#)

I agree with Johannes Gruenwald in saying that there are no Fe lines in Sunlight.

1. On comparison of solar lines and Fe lines I did not find any valid links. Please refer 2.1 'Solar and Fe lines have no valid links' in my paper 'Discovery of Sun's Bharat Radiation emission

mentioned below.

2. In the Solar spectrum obtained by Woods et al on May 5, 2010, existence of Bharat Radiation wavelengths in 2.87 to 31 nm range from radioisotopes were discovered by me. Therefore, solar lines attributed to Fe lines in 2.87 to 31 nm range are of Bharat Radiation caused by beta, gamma or X-ray emission within the excited atoms of radioisotopes (²³⁵Uranium fission products).

3. For the first time in solar physics, the following paper ‘Discovery of Self-Sustained ²³⁵-U Fission Causing Sunlight ‘ reports a comprehensive study how ²³⁵Uranium fission causes Sunlight by the atomic phenomenon, Padmanabha Rao Effect against the theory of fusion. The first major breakthrough lies in identifying as many as 153 solar lines in 2.87 to 31 nm range reported by various researchers since 1960s (refer Table) as of Bharat Radiation caused by beta, or gamma emission from within excited atoms of ²³⁵Uranium fission products (radioisotopes).

M.A. Padmanabha Rao,

Discovery of Sun’s Bharat Radiation emission causing Extreme Ultraviolet (EUV) and UV dominant optical radiation,

IOSR Journal of Applied Physics (IOSR-JAP), Volume 3, Issue 2 (Mar. – Apr. 2013), PP 56-60, DOI: 10.9790/4861-0325660

<http://www.iosrjournals.org/iosr-jap/papers/Vol3-issue2/H0325660.pdf>

M.A. Padmanabha Rao,

Discovery of Self-Sustained ²³⁵-U Fission Causing Sunlight by Padmanabha Rao Effect,

IOSR Journal of Applied Physics (IOSR-JAP), Volume 4, Issue 2 (Jul. – Aug. 2013), PP 06-24, DOI: 10.9790/4861-0420624

<http://www.iosrjournals.org/iosr-jap/papers/Vol4-issue2/B0420624.pdf>

Concluding remarks

While it seems interesting to ponder this question of the origin and chemical composition of the core of the sun, it appears that there is no sufficient data yet to accept that the sun's core consists of iron. But we can wait for further research.

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Further reading:

1. “Xenon in carbonaceous chondrites”, Nature 240, 99-101 (1972)

www.omatumr.com/archive/XenonInCarbonaceousChondrites.pdf

2. “Strange xenon, extinct super-heavy elements, and the solar neutrino puzzle”, Science 195, 208-210 (1977) <http://www.omatumr.com/archive/StrangeXenon.pdf>

3. “Solar abundances of the elements,” Meteoritics 18, 209-222 (1983);

<http://tinyurl.com/224kz4>

4. “The Sun’s origin, composition and source of energy”, Abstract 1041 , 32nd Lunar and Planetary Science Conf., Houston, TX, March 12-16, 2001, LPI Contribution 1080 (2001).

<http://www.omaturn.com/lpsc.prn.pdf>

5. "Composition of the solar interior: Information from isotope ratios," Proceedings of SOHO 12/GONG Conference on Local and Global Helioseismology: The Present and the Future, 27 Oct-1 Nov 2002, Big Bear Lake, CA, U.S.A. (ESA SP-517, editor: Huguette Lacoste) pp. 345-348 (2003):

<http://www.omaturn.com/abstracts/gong-2002.pdf>

6. A Journey to the Core of the Sun: Chapter 2 - Acceptance of Reality (Jan 2014)

https://dl.dropboxusercontent.com/u/10640850/Chapter_2.pdf